Prelim Bits 27-11-2021 | UPSC Daily Current Affairs

National Multidimensional Poverty Index

The Government think-tank NITI Aayog has prepared and released the National Multidimensional Poverty Index (MPI).

- **Index** - National MPI of India is a contribution towards measuring progress towards **target 1.2** of the Sustainable Development Goals (SDGs) of the 2030 Agenda.
- National MPI is a **baseline report** that is based on the reference period of **2015-16** of the National Family Health Survey-4 (**NFHS-4**).
- It captures multiple and simultaneous deprivation faced by households.
- [SDG Target 1.2 aims at reducing at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions.]
- National MPI has been constructed by utilising 12 key components covering 3 dimensions of **health and nutrition**, **education** and **standard of living**.

- India's national MPI measure uses the globally accepted and robust methodology developed by the Oxford Poverty and Human Development Initiative (OPHI) and the UN Development Programme (UNDP).

  MPI as a measure was first developed by OPHI and UNDP for inclusion in UNDP's flagship Human Development Report in 2010.

- **Findings** - With 51.91% of the population in the State identified as "multi-dimensionally poor", Bihar has the maximum percentage of population living in poverty among all the States and Union Territories.
  - Bihar is followed by Jharkhand, Uttar Pradesh, Madhya Pradesh and Meghalaya.
- On the other hand, Kerala registered lowest population poverty levels (0.71%), followed by Puducherry, Lakshadweep, Goa and Sikkim.
- Other States and UTs where less than 10% of the population are poor include Tamil Nadu (4.89%), Delhi (4.79%), Andaman & Nicobar Islands, Punjab, Himachal Pradesh and Mizoram.

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1775489
2. https://www.thehindu.com/news/national/bihar-has-most-poor-people-in-india-niti-aayog/article37698673.ece
3. https://www.niti.gov.in/sites/default/files/2021-11/National_MPI_India-11242021.pdf

Bauxite

Koraput district administration in Odisha organised a public hearing on environmental issues regarding the bauxite mining lease granted to Hindalco Ltd.

> Odisha (Kalahandi, Sambalpur, Bolangir and Koraput) is the largest producer of Bauxite in India.

- Bauxite is a **non-ferrous metallic mineral**.
- Bauxite is found mainly in **tertiary deposits** and is associated with l**aterite rocks** occurring extensively either on the plateau or hill ranges of peninsular India and also in the coastal tracts of the country.
- Major Bauxite reserves are in Jharkhand, Maharashtra, MP, Chhatisgarh, Gujarat, Karnataka, Tamil Nadu, Goa and UP.
- Huge deposits of bauxite have been discovered in the Eastern Ghats in Orissa and Andhra Pradesh, Tamil Nadu (Salem, Nilgiri and Madurai district), and UP (Banda district) also have workable deposits of bauxite.
- India's reserves of bauxite are sufficient to keep the country self-reliant.
- India also exports bauxite to a number of countries. The leading importer of Indian bauxite is Italy.
- **Uses** - Bauxite is used in manufacturing of aluminium. It is also used for manufacturing of white colour cement and certain chemicals.

Reference

1. https://indianexpress.com/article/explained/odisha-koraput-district-hindalco-mining-lease-protests-explained-7636774/
2. https://ncert.nic.in/textbook/pdf/legy207.pdf
3. https://www.nios.ac.in/media/documents/316courseE/ch2pdf

Global Nutrition Report 2021

The Global Nutrition Report, 2021 (GNR, 2021) was released recently.

- The Global Nutrition Report was conceived following the first Nutrition for Growth Initiative Summit (N4G) in 2013.
- **The annual GNR** -
    1. Evaluates the impact of poor diets on human health and the planet,
    2. Provides a concise data-focused updates on the state of diets and nutrition in the world,
    3. Assesses the nutrition financing landscape and progress towards global nutrition targets.

Findings

- At the current rate of progress, the global nutrition targets will not be achieved by 2025 globally and in most countries worldwide. The Covid-19 pandemic is impeding progress towards achieving these targets.
    - To achieve the global nutrition targets, countries must intensify and accelerate efforts to reach their commitment goals, particularly **financial and impact goals**.
- Economic downturn triggered by the Covid-19 pandemic, combined with disrupted food and

health systems, threatens to increase malnutrition significantly in low- and middle-income countries.
    - Given these economic challenges, when donor and domestic resources are constrained by the pandemic, there is an urgent need for concessional, private sector and catalytic **innovative finance**.
- The previous decade has seen little progress in improving diets, and a quarter of all deaths among adults are attributable to poor diets.
- Food production currently generates more than a third of all greenhouse gas emissions globally, and uses substantial and rising amounts of environmental resources.
- No region is on track to meet the Sustainable Development Goals aimed at limiting health and environmental burdens related to diets and the food system.
    - Poor diets and malnutrition should be addressed holistically and sustainably to create a healthy future for all.

Anaemia is a condition in which the number of red blood cells or the haemoglobin concentration within them is lower than normal.

Wasting refers to children whose weight is low-for-their height.

Stunting refers to children whose height is low-for-their age.

India’s Performance

- According to the GNR 2021, India is among the countries documented in the report as having made no progress or said to be worsening with regards to reducing ‘**anaemia**’ and **‘childhood wasting’**.
- Over half of Indian women in the age group 15-49 years are anaemic.
- In 2016, 52.6% of Indian women were anaemic. But in 2020, 53% were found to be anaemic.
- Over 17% of Indian children under 5 years of age are affected by wasting. This figure is much higher than the average for Asia (9%).
- According to the report, India is **‘off-course’** in meeting 7 of the 13 global nutrition targets.
- These include sodium intake, raised blood pressure, obesity and diabetes (all both in men and women).
- Some 6.2% of adult (aged 18 years and over) women and 3.5% of adult men are living with obesity in the country.
- India is among 53 countries **‘on course’** to meet the target for ‘stunting’, ‘childhood overweight’ and ‘exclusive breast feeding’.
    - Over 34% of children under 5 years of age are still affected by stunting. This figure is higher than average for Asia (22%).
    - Some 58% of infants in the age group 0-5 months are exclusively breastfed in India.

Global Nutrition Targets

In 2012, the World Health Organisation identified six nutrition targets to be met by 2025.

Reference

1. https://www.downtoearth.org.in/news/health/india-has-made-no-progress-on-anaemia-childhood-wasting-global-nutrition-report-80342
2. https://thelogicalindian.com/trending/53-of-indian-women-aged-15-to-49-years-affected-by-anaemia-says-global-nutrition-report-32114
3. https://globalnutritionreport.org/reports/2021-global-nutrition-report/assessing-progress-towards-the-global-nutrition-targets/
4. https://globalnutritionreport.org/reports/2021-global-nutrition-report/financing-nutrition/
5. https://sdg2advocacyhub.org/GNR17

Supermassive Black Hole & Gravity

A change of state of a Monster black hole system named OJ 287 (monitored since 2015) was detected by Indian Astronomers

> In some galaxies, the black hole is actively devouring a large amount of material and shooting a jet of plasma, called blazars, at the speed of light towards us.

- New state of this supermassive black hole (SMBH), which originated in the form of blazars, could help
    1. Probe how particles behave under intense gravity and acceleration to the speed of light, and
    2. Study the role of strong gravity and acceleration of matter in the formation, interaction, and evolution of galaxies in the early universe.
- This black hole is found at the center of an active galaxy detected 5 Billion Light years away.
- OJ 287 (source) belongs to a class of blazars known as BL Lacerate blazars, which show very rapid and large amplitude flux variations but barely discernible emission line features.
- This source emit in the whole electromagnetic spectrum, a rather uncommon phenomenon which requires extreme gravitational field.
    - Due to the extreme gravitational field, it is difficult for light also to escape from the vicinity of the black hole.
- This source shows a repeated optical brightness enhancement almost every 12 years. This reveals that the system hosts a binary black hole.

Black Holes

- A black hole is a place in space where gravity pulls so much that even light cannot get out.
- The gravity is so strong because matter has been squeezed into a tiny space. This can happen when a star is dying.
- As no light can get out, people can't see black holes. They are invisible.
- Space telescopes with special tools can help find black holes, by seeing how stars that are very close to black holes act differently than others.
- **Size** - Black holes can be big or small. The smallest black holes are as small as just one atom.
- **Stellar black holes** are made when the center of a very big star falls in upon itself, or collapses. They have a mass that can be up to 20 times more than the mass of the sun.
- **Supermassive black holes** are the largest black holes, which has masses that are more than 1 million suns together.

- Every large galaxy contains a supermassive black hole at its center.
- The supermassive black hole at the center of the Milky Way galaxy is called Sagittarius A, which has a mass equal to about 4 million suns.
- **Related Links** - Merging of 3 Super-massive Black Holes, The Unicorn,

Reference

1. https://pib.gov.in/PressReleasePage.aspx?PRID=1774610
2. https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-a-black-hole-k4.html

Christmas Island Red Crabs

Australia's Christmas Island witnesses the annual red crab migration.

- Red crab is a species of **land crab,** which is endemic to the Christmas Island and Cocos Islands of Australia in the Indian Ocean.
- Every year, these crabs emerge from the forest and make their way to the ocean to breed, swarming across roads, streams, rocks and beaches.
- Male crabs lead the migration and are joined by females along the way.
- Migration starts with the first rainfall of the wet season. This is usually in October or November.
- The exact timing and speed of the migration is determined by the phase of the moon.
    - Red crabs always spawn before dawn on a receding high-tide during the last quarter of the moon.
- **Diet** - Red crabs are opportunistic omnivorous scavengers.
- They mostly eat fallen leaves, fruits, flowers and seedlings, but will also feed on dead animals.
- **Predators** - Red crabs have no natural predators on Christmas Island.
- But the yellow crazy ant, an invasive species introduced to Christmas Island from Africa, is believed to have killed many red crabs recently.

Christmas Island

- Christmas Island is administered as an external territory of Australia.
- This island in the Indian Ocean was first sighted in 1615 by Richard Rowe.
- The island is the **summit of an oceanic mountain** whose highest point on the island is Murray Hill.
- The main settlement and chief port is at Flying Fish Cove.

Reference

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2. https://parksaustralia.gov.au/christmas/discover/highlights/red-crab-migration/
3. https://indianexpress.com/article/technology/science/mating-crawl-migrating-christmas-island-crabs-7639011/
4. https://www.britannica.com/place/Christmas-Island



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