

**27 – 11 – 2021**

**News:** O –Smart Scheme

- The Cabinet Committee on Economic Affairs approved the continuation of the ‘Ocean Services, Modelling, Application, Resources and Technology (O-SMART)’ Scheme for the period of 2021-26.

**Ocean Smart (O – SMART) Mission**

- Ocean Smart (O – SMART) mission is a government scheme that aims at **promoting ocean research and setting up early warning weather systems.**
- It was **launched in August 2018.**
- It also aims at addressing **ocean development activities such as technology, services, resources, science and observations as well as offering required technological assistance for implementing aspects of the Blue Economy.**
- It comprises seven sub-schemes which are being implemented by autonomous institutes of the **Ministry of Earth Sciences (MoES).**
- Sub-Schemes are: **Ocean Technology, Ocean Modelling and Advisory Services (OSMAS), Ocean Observation Network (OON), Ocean Non-Living Resources,**

Marine Living Resources and Ecology (MLRE), Coastal Research and Operation, Maintenance of Research Vessels.

## Objectives

- To generate and regularly update information on Marine Living Resources and their relationship with the physical environment in the Indian Exclusive Economic Zone (EEZ).
- To periodically monitor levels of seawater pollutants for health assessment of coastal waters of India, to develop shoreline change maps for assessment of coastal erosion due to natural and anthropogenic activities.
- To develop a wide range of state-of-the-art ocean observation systems for the acquisition of real-time data from the seas around India and to cater to the testing and sea trial activities of ocean technology.
- To generate and disseminate a suite of user-oriented ocean information, advisories, warnings, data and data products for the benefit of society.
- To develop high-resolution models for ocean forecast and reanalysis systems.
- To develop algorithms for validation of satellite data for coastal research and to monitor changes in the coastal research.

- Acquisition of Coastal Research Vessels(CRVs) for coastal pollution monitoring, testing of various under water components and technology demonstration and to support their operation and maintenance.
- To develop technologies to tap the marine bioresources, generate freshwater and ocean energy and develop underwater vehicles and technologies.
- Establishment of Ballast water treatment facility.
- Ballast Water Discharge by ships is responsible for the introduction of invasive species in the oceans by taking water from one port and discharging it during the next port call.
- To carry out exploration of Polymetallic Nodules (MPN) from water depth of 5500 m in a site of 75000 sq. km allotted to India by the United Nations in the Central Indian Ocean Basin, and to carry out investigations of gas hydrates.
- MPN, also called manganese nodules, are rock concretions formed of concentric layers of iron and manganese hydroxides around a core.
- MPN contain multiple metals like copper, nickel, cobalt, manganese, iron, lead, zinc, aluminium, silver, gold and platinum etc. in variable constitutions and are precipitate of hot fluids from upwelling hot magma from the deep interior of the oceanic crust.
- Mining for Polymetallic nodules is of strategic importance for India as there are no terrestrial sources of these metals in India.

- Exploration of polymetallic sulphides near Rodrigues Triple junction (convergence of Central Indian Ridge, the Southeast Indian Ridge, and the Southwest Indian Ridge) in 10000 sq. km of area allotted to India in International waters by International Seabed Authority.
- Submission of India's claim over continental shelf extending beyond the EEZ supported by scientific data, and the Topographic survey of EEZ of India.

**News:** Over 50% of Bihar population multidimensionally poor: NITI

- Recently, NITI Aayog has released Indian Multidimensional Poverty Index (MPI).

## **Indian Multidimensional Poverty Index (Indian MPI)**

- The data is based on the National Health Family Survey (NHFS) for 2015-16.
- India's Head Count Ratio (HCR) is 25.01 per cent, meaning that one in every four Indians are multidimensionally poor.
- MPI measure used the globally accepted and robust methodology developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP).

- The MPI is based on **three dimensions -- health, education, and standard of living -- with each having a weighting of one-third in the index.**
- These dimensions are **further based on 12 segments -- nutrition, child and adolescent mortality, antenatal care, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, assets, and bank accounts.**
- As per the index, **51.91% of the population in Bihar is poor, followed by Jharkhand (42.16%), Uttar Pradesh(37.79%), Madhya Pradesh (36.65%) and Meghalaya (32.67%).**
- On the other hand, **Kerala registered the lowest poverty levels (0.71%), followed by Puducherry (1.72%), Lakshadweep (1.82%), Goa (3.76%) and Sikkim (3.82%).**
- Other States and **Union Territories where less than 10% of the population is poor include Tamil Nadu (4.89%), Andaman & Nicobar Islands (4.30%), Delhi (4.79%), Punjab (5.59%), Himachal Pradesh (7.62%) and Mizoram (9.8%).**

## Multidimensional Poverty Index (MPI)

- The Multidimensional Poverty Index (MPI) was launched by the **UNDP and the Oxford Poverty & Human Development Initiative (OPHI) in 2010.**
- MPI is based on the idea that poverty **is not unidimensional (not just depends on income and one individual may lack several basic needs like education, health etc.), rather it is multidimensional.**
- The index shows the proportion of poor people and the average number of deprivations each poor person experiences at the same time.

MPI uses three dimensions and ten indicators which are:

- Education: Years of schooling and child enrollment (1/6 weightage each, total 2/6);
- Health: Child mortality and nutrition (1/6 weightage each, total 2/6);
- Standard of living: Electricity, flooring, drinking water, sanitation, cooking fuel and assets (1/18 weightage each, total 2/6).
- The Index considers **data from 109 countries and 5.9 billion people.**

## Global Data

- 1.3 billion people are multidimensionally poor.
- About half (644 million) are children under age 18.
- Nearly 85% live in Sub-Saharan Africa (556 million) or South Asia (532 million).
- More than 67% live in middle-income countries.

## Periodic Reduction in Poverty

- Of the 80 countries and five billion people for which there is data over time, 70 reduced MPI in at least one period, with the fastest changes coming from Sierra Leone (2013-2017), followed by Togo (2013/2014-2017).

## Absolute Reduction in Poverty

- Some countries saw the fastest absolute reductions in their poorest regions-helping to fulfil their pledge to leave no one behind.
- These areas include North Central in Liberia (2013–2019/2020) and Province 2 in Nepal (2016–2019).

## Poverty Across Ethnic and Racial groups

- In some cases, disparities in multidimensional poverty across ethnic and racial groups are greater than disparities across geographical subnational regions.
- Within a country, multidimensional poverty among different ethnic groups can vary immensely.
- Therefore different policy actions are needed to reduce multidimensional poverty.

## Education

- Worldwide about two-thirds of multidimensionally poor people (836 million) live in households where no woman or girl completed at least six years of schooling.
- 227 million live in India.
- One-sixth of all multidimensionally poor people (215 million) live in households in which at least one boy or man has completed six or more years of schooling but no girl or woman has.
- The report also finds that women and girls living in multidimensional poverty are at higher risk of intimate partner violence.



## Living Standard

- 1 billion are exposed to solid cooking fuels, another billion live with inadequate sanitation and another billion have substandard housing.
- 788 million live in a household with at least one undernourished person.
- 568 million lack improved drinking water within a 30-minute round trip walk.

## Effect of Covid

- The Covid 19 pandemic has eroded development progress around the world and we are still grappling to understand its full impacts.
- It has exposed the weaknesses in social protections systems, education and workers vulnerability around the world.
- These weaknesses are deepest in countries with higher levels of multidimensional poverty.

## Indian Scenario

- As castes and tribes are a more prevalent line of social stratification in India, this index presents the incidence and intensity of multidimensional poverty among castes and tribes and among individuals who are not members of any caste or tribe.

- In India **five out of six multidimensionally poor people are from lower tribes or castes.**
- 9.4% of the Scheduled Tribe group lives in multidimensional poverty
- 33.3% of the Scheduled Caste group lives in multidimensional poverty.
- 27.2% of the Other Backward Class group lives in multidimensional poverty.
- In India close to 12% of the population live in female-headed households.