

1. India's Learning Poverty

Topic: Social Justice

In News: World Bank's Global Director of Education has raised concern stating that India's 'learning poverty' has shot up to 70% from 54% in the pre pandemic time.

More on the Topic:

- The World Bank defines 'learning poverty' as a **child's inability to read a simple text by 10.**
- "Reading is a gateway for learning as the child progresses through school - and conversely, an inability to read impact children in a huge scale.
- Beyond this, when the child cannot read, it's usually a clear indication that the school systems are not well-organized to help children learn in other areas such as math, science and humanities.
- Learning poverty will also have economic costs in the future. The country's education system quality directly impacts the national gross domestic product.



Reason for Worsening Learning Poverty:

- The sudden school closure in 2020 proved to be a significant hurdle in a child's learning progress.
- So much so that many of them had to drop out as the closures were prolonged. Therefore, it can be challenging to convince them to re-enrol and start afresh.

Way Ahead:

- Government should first **identify the learning gaps and adjust instruction** to target the child's level of learning.
- Government must act swiftly and immediate policy actions must be made to keep schools fully open, bring back children to school, diagnose the learning losses, and address the support needed by students, teachers, and parents, to address the learning poverty.
- Improved assessment mechanism should be created and periodical assessment should be done to find out quality of teaching as well as improvement of students.

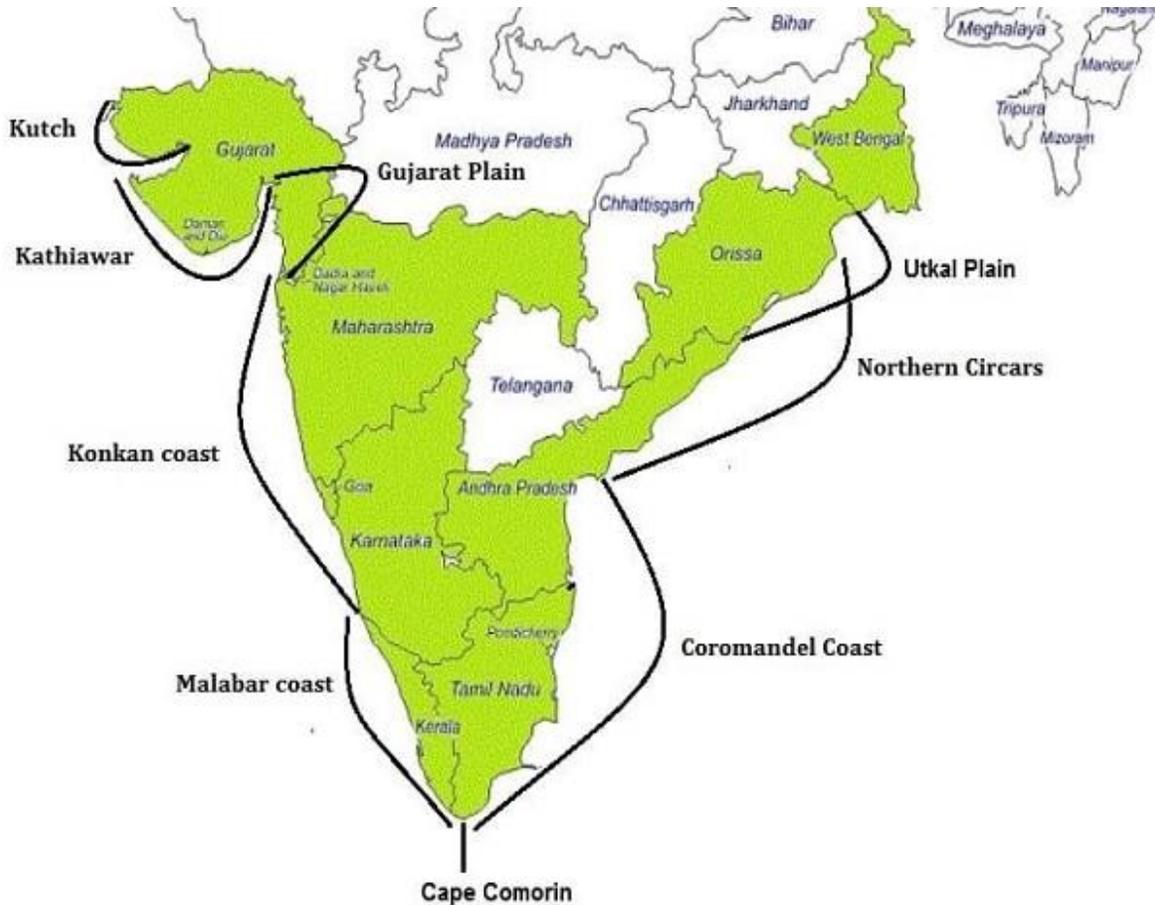
Government Steps to reduce learning poverty:

- **National Education Policy:** NEP mandates students to achieve foundational literacy and numeracy by all students by grade 3.
- **Nipun Bharat Programme:** It is a national mission on foundational literacy and numeracy. Students should achieve basic reading, writing and numeracy skills between 3rd and 5th grade.

Source: Indian Express

2. Coastal Erosion

Topic: Environment and Ecology



In News: The Ministry of Earth Sciences, in a response to a question, informed the Lok Sabha earlier this week that of the 6,907.18 km long Indian coastline of the mainland, about 34% is under varying degrees of erosion.

More on the Topic:

- In terms of percentage, West Bengal, located on the eastern coast of the country, suffered erosion along about 60.5% of the coast over the period from 1990 to 2018. This is followed by Kerala on the west coast 46.4% of it faced erosion.

Reasons for erosion:

- **Climate change-driven rise in sea level and increased intensity of ocean storms** are among the most significant reasons for coastal erosion.
- **Human activity closer to the shoreline**, such as construction, dredging, quarrying and sand mining, is exacerbating the menace.
- In its natural state, saline winds, cyclones, sea waves and tides leads to coastal erosion.

Mitigation Measures:

- **Hard-erosion control methods:** Seawalls and groynes serve as semi-permanent infrastructure.
- These structures are not immune from normal wear-and-tear and will have to be refurbished or rebuilt.
- It is estimated the average life span of a seawall is 50–100 years and the average for a groyne is 30–40 years.
- **Soft erosion strategies** refer to **temporary options of slowing the effects of erosion.** These options, including Sandbag and beach nourishment, are not intended to be long term solutions or permanent solutions.
- Another method, beach scraping or beach bulldozing allows for the creation of an artificial dune in front of a building or as a means of preserving a building foundation.
- Relocation of infrastructure or housing farther away from the coast is also called a **managed retreat.** The natural processes of both absolute and relative sea-level rise and erosion are considered in rebuilding.
- Improving vegetation along the coastline, which is important for improving slope stability and providing shoreline protection.

Source: Indian Express

3. Pinaka Rocket System

Topic: Science and Technology

In News: The Indian Army and the Defence Research and Development Organisation (DRDO) have conducted a series of flight tests of an upgraded version of the Pinaka rocket system.

More on the Topic:

- Pinaka is an indigenous multi-barrel rocket launch system.
- It is an artillery missile system capable of striking into enemy territory up to a range of 75 kilometres with high precision.
- Its weapon system has a state-of-the-art **guidance kit bolstered by an advanced navigation and control system.**



- The Pinaka Mark II Rocket is modified as a missile by integrating with the navigation, control and guidance system to improve the accuracy and enhance the range.
- The navigation system of the missile is aided by the **Indian Regional Navigation Satellite System (IRNSS)**.

Source: PIB

4. Jute Crop

Topic: Agriculture

In News: The Centre has further reduced raw jute stock limit for balers and traders in a bid to increase supply of the raw material to mills.

More on the Topic:

- The Centre has put a ceiling on the stock limit with an objective **to prevent hoarding of raw jute in the market** and ease supply of the commodity to mills at a reasonable price,
- Major food grain producing states are facing shortage for the environment-friendly packaging material.



Jute Crop:

- Ideal Temperature required: Between 25-35°C.
- Rainfall: Around 150-250 cm.
- Soil Type: Well-drained alluvial soil.
- Top Jute Producing States: West Bengal > Bihar > Assam > Andhra Pradesh > Odisha.
- It is mainly concentrated in eastern India because of the rich alluvial soil of Ganga-Brahmaputra delta.
- The world's largest jute producing countries are India, Bangladesh, China and Thailand.
- India is the world's largest producer of raw jute and jute goods, contributing to over 50% and 40% respectively of global production.

Source: Business Standard

5. Zonal Council

Topic: Polity and Governance

In News: The Eastern Zonal Council, comprising the states of Bihar, Odisha, West Bengal and Jharkhand, will hold a meeting in April at Kolkata.

More on the Topic:

- Zonal councils are **Statutory bodies** established under the States Reorganisation Act 1956 and not constitutional bodies. They are only deliberative and advisory bodies.
- They are intended to promote interstate cooperation and coordination.

There are 5 Zonal councils namely:

- **The Northern Zonal Council**, comprising the States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, National Capital Territory of Delhi and Union Territory of Chandigarh.
- **The Central Zonal Council**, comprising the States of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh.
- **The Eastern Zonal Council**, comprising the States of Bihar, Jharkhand, Orissa, and West Bengal.
- **The Western Zonal Council**, comprising the States of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli.
- **The Southern Zonal Council**, comprising the States of Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry.
- The North Eastern States i.e. (i) Assam (ii) Arunachal Pradesh (iii) Manipur (iv) Tripura (v) Mizoram (vi) Meghalaya (vii) Sikkim and (viii) Nagaland are not included in the Zonal Councils and their special problems are looked after by **the North Eastern Council, set up under the North Eastern Council Act, 1972.**



Composition:

- **The Union Home Minister is the Chairman of each of these Councils.**
- **The Chief Ministers of the States included in each zone act as Vice-Chairman** of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time.
- Members are the Chief Minister and two other Ministers as nominated by the Governor from each of the States and two members from Union Territories included in the zone.

Source: PIB

6. Micro Swimmers for Drug Delivery

Topic: Science and Technology

In News: According to new research, it is now possible to make use of light as a form of fuel to move microbots or micro-swimmers in real body conditions for the delivery of drugs that are selectively sensitive toward the cancer cells.

More on the Topic:

- Micro bots are made from two -di-mensional compound poly (heptazine imide) carbon ni-tride (aka PHI carbon ni-tride) can self- propel when energised by shining light.
- The PHI carbon nitride mi-croparticles are photocata-lytic.
- Like in a solar cell, **the incident light is converted in to electrons and holes.**
- These charges drive reactions in the surrounding liquid. This reaction, combined with the particle's electric field, makes the microbots (micro swimmers) swim.
- As long as there is light, electrons and holes are produced on the surface of the swimmers, which in turn react to form ions and an electric field around the swimmer.
- These ions move around the particle and cause fluid to flow around the particle. So this fluid flow causes the micro swimmers to move.
- The researchers working on this have found that **Doxo rubicin, a drug that is used for treating cancer,** was absorbed easily.
- The release of the drug can be activated by triggering it with light or by changing the pH of the solution.



Source: PIB