Current Affairs of the Day

GS Paper - II

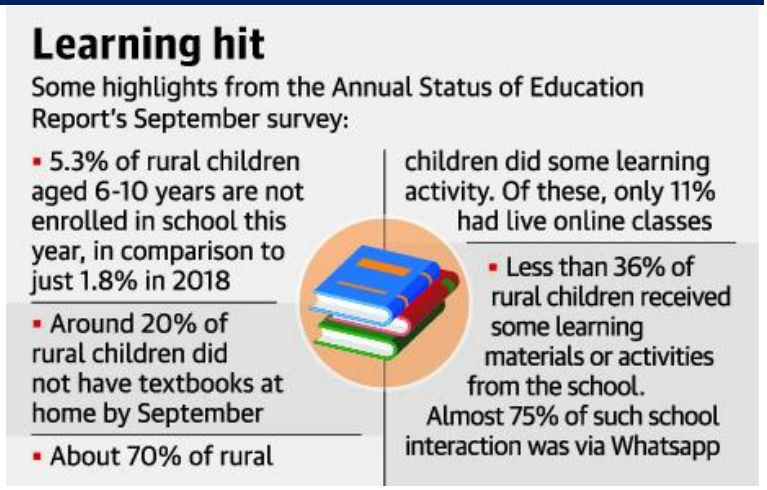
- '20% of rural students lack books'

GS Paper - III

- ISRO to launch satellite EOS-01 on November 7
- Down to Earth: Internal tide mixing keeps the deep Andaman Sea warmer than the Bay of Bengal: Study

'20% of rural students lack books'

GS II: Issues Relating to Development and Management of Social Sector/Services relating to Health, Education, Human Resources.



Bottom line: The ASER survey provides a glimpse into the levels of learning loss that students in rural India are suffering, with varying levels of access to technology, school and family resources, resulting in a digital divide in education.

Highlights:

1. It found that 5.3% of rural children aged 6-10 years had not yet enrolled in school this year, in comparison to just 1.8% in 2018. This seems to indicate that due to the disruptions caused by the pandemic, families are waiting for the physical opening of schools to enrol their youngest children.
2. About 20% of rural children have no textbooks at home, according to the Annual State of Education Report (ASER).
3. In the week of the survey, about one in three rural children had done no learning activity at all. About two in three had no learning material or activity given by their school that week, and only one in 10 had access to live online classes.
4. However, it's not always about technology; in fact, levels of smartphone ownership have almost doubled from 2018, but a third of children with smartphone access still did not receive any learning materials.
5. In 2018, ASER surveyors found that about 36% of rural households with school-going children had smartphones. By 2020, that figure had spiked to 62%. About 11% of families bought a new phone after the lockdown, of which 80% were smartphones.

6. This may indicate why WhatsApp was by far the most popular mode of transmitting learning materials to students, with 75% of students who got some input receiving it via the app. About a quarter of those who got input had personal contact with a teacher.

About ASER:

ASER is a nationwide survey of rural education and learning outcomes in terms of reading and arithmetic skills that has been conducted by the NGO Pratham for the last 15 years.

Mains Focus:

1. COVID has exposed the inadequacies of Education delivery in rural areas. Role of digital mode in future is crucial. However, Operation Digital board falls short of fulfilling the need for rural areas.

ISRO to launch satellite EOS-01 on November 7

Prelims

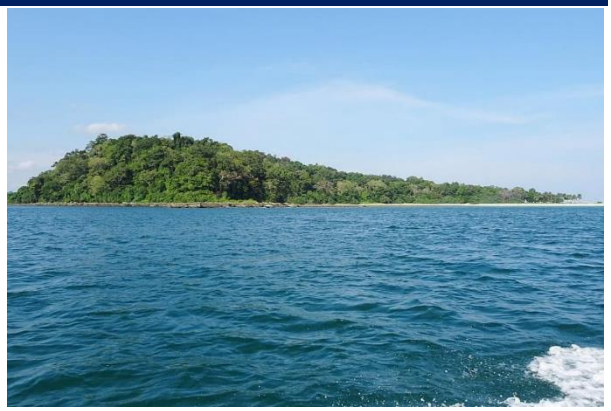
GS III: Awareness in the fields of IT, Space, Computers, Robotics, Nano-technology, Bio-technology and issues relating to Intellectual Property Rights.

News: India would launch its latest earth observation satellite EOS-01 and nine international customer spacecraft onboard its Polar rocket PSLV-C49 from the spaceport of Sriharikota in Andhra Pradesh on November 7, ISRO said on Wednesday.

Highlights:

1. EOS-01 is intended for applications in agriculture, forestry and disaster management support.
2. The customer satellites are being launched under a commercial agreement with NewSpace India Limited (NSIL), Department of Space.

Internal tide mixing keeps the deep Andaman Sea warmer than Bay of Bengal: Study



GS I: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

Discovery: Deep waters in the Andaman Sea are about 2 degrees Celsius warmer than in the Bay of Bengal

Highlights:

1. According to a new study conducted by Indian National Centre for Ocean Information Services (INCOIS) to investigate internal waves: Deep waters (below 1,200 metres) in the Andaman Sea are about 2 degrees Celsius warmer than the Bay of Bengal due to internal tide mixing.
2. The study is important to interpret the response of the ocean to climate change by understanding the distribution of temperature, both near the ocean surface and the deep ocean.

Vertical Mixing

1. Internal tide energy dissipation and associated vertical mixing play a major role in maintaining the warmer temperature in the deep Andaman Sea. The rate of vertical mixing in the AS is about twice than what is observed in the Bay of Bengal.
2. This elevated internal tide induced vertical mixing results in the efficient transfer of heat into the deeper layers, which keeps the deep Andaman Sea warm.
3. Temperature distribution in the deep ocean plays an important role in regulating the deep ocean circulation, water mass formation, distribution of

chemical properties as well as the distribution of marine organisms including invertebrate animals.

4. INCOIS study suggested that in future, the amplitude of internal tides could be larger and the Andaman Sea could have a more rapid response to the change in vertical mixing in the global warming scenario compared to other regions.
5. The researchers added that recent studies suggested that the effect of climate change was more pronounced in the deep sea and the marginal sea than previously believed.

Climate change moderation:

Under the global climate change scenario, tidal-induced deep-sea mixing plays an important role in controlling the distribution of heat and carbon in the ocean, helping drive global ocean circulation and force nutrients up from the deep, where they can be used by tiny plants at the sea surface that is at the base of the ocean's food web.