



Current Affairs of the Day

GS Paper II

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GS Paper III

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Millions depend on Teesta, Hasina tells Modi

Bangladesh on Saturday reiterated that the livelihood of “millions” of its citizens depended on the Teesta river and the country should receive a proper share of its waters.

Highlights:

1. Prime Minister Sheikh Hasina reiterated Bangladesh’s long-pending request for concluding the interim agreement on the sharing of the waters of Teesta river.
2. She underscored that to alleviate the sufferings and save the livelihoods of millions of people dependent on the Teesta river basin, it is necessary that Bangladesh receives its fair share of the waters, the draft agreement of which has already been agreed upon by both governments in January 2011.
3. The two leaders also instructed their Ministries of Water Resources to firm up the Framework of Interim Agreement over the six common rivers — Monu, Muhuri, Khowai, Gumti, Dharla and Dudhkumar.
4. Sharing of water resources has been a contentious issue between the two neighbours because of the number of stakeholders.
5. Bangladesh has called upon India to revive the jute sector with investment and through public-private partnership. In this regard, Dhaka urged Delhi to withdraw the duties that were imposed on jute products of Bangladesh since 2017.

Connectivity for Northeast India

1. Both sides reviewed a slew of measures that have been underway over the last several years that will ease connectivity between the northeastern states of India and West Bengal. The two Prime Ministers on Saturday inaugurated the Mitali Express, a new AC train that will connect Jalpaiguri with Dhaka.
2. Bangladesh also offered the airports of Sylhet and Chittagong for the passengers of the Northeastern States, especially of Tripura saying these airports will help in improving connectivity in the region.



Amid Bangladesh liberation anniversary, the role of India, the U.S. in 1971 in the spotlight

Bangladesh commemorates 50 years of its Liberation movement, which began with the declaration of Independence by the Mukti Bahini (Freedom Fighters) led by Sheikh Mujibur Rahman on March 26, 1971.

Revisiting History

1. A few days after the Mujib declaration, Prime Minister Indira Gandhi moved a resolution in Parliament condemning the Pakistani crackdown as “genocide”.
2. On April 3, she met Tajuddin Ahmed, Mujib’s nominee for PM of the provisional government, and promised support.
3. While the U.S. was deadset against India’s stand, Mrs Gandhi found some support in Moscow, and the Indo-Soviet treaty of Peace and Cooperation was signed in August 1971.
4. The Soviet treaty dented India’s non-aligned policy, but Soviet naval support and military supplies assisted New Delhi in the war that followed.
5. In a special commemoration in the U.S. Congress in March 2021, Representative called for an apology from Pakistan and an acknowledgement from the U.S. of its “solidarity” with Bangladesh.

Better judicial infra needed: Justice Ramana

Supreme Court judge, Justice N.V. Ramana, on Saturday called for the need to establish a National Judicial Infrastructure Corporation to drastically improve judicial infrastructure across the country. He said the corporation could bring the much-needed “uniformity and standardisation” which could “revolutionise” judicial infrastructure.

Highlights:

1. The senior Supreme Court judge, who is scheduled to take over as the 48th CJI, was replying to criticism that money is spent on the infrastructure of higher courts while the subordinate judiciary continues to function from stuffy, ill-lit and dingy courtrooms.



2. “There is a need for the Centre and States to cooperate and create a National Judicial Infrastructure Corporation, as a one-time measure, to cater to the need for judicial infrastructure in the country. Such a corporation would bring the uniformity and standardisation required to revolutionise judicial infrastructure,” Justice Ramana said.
3. An efficient “judicial infrastructure” means providing equal and free access to justice. This could be realised through a “barrier-free and citizen-friendly environment”, Justice Ramana said.

Permanent commission for women in the Army

The story so far:

1. The Supreme Court in Secretary, Ministry of Defence vs. Babita Puniya last February (2020) directed the government to ensure that women officers in the Army are granted permanent commission (PC) as well as command postings in all services other than combat.
2. Later, questioning the compliance of the Army with the directions in the judgment, around 80 women short service commission officers approached the Supreme Court challenging the arbitrary process, including unjust medical standards, applied to deny permanent commission to women officers.
3. In March 2021, the Supreme Court in Lt. Col. Nitisha vs. Union of India held that the Army’s selective evaluation process discriminated against and disproportionately affected women officers seeking a permanent commission.

What did the Supreme Court observe?

1. A Bench led by Justice D.Y. Chandrachud observed that the pattern of evaluation inherently caused economic and psychological harm to women short service commission officers.
2. The judgment, authored by Justice Chandrachud, said the evaluation criteria set by the Army constituted “systemic discrimination” against the petitioners.



New species of red algae seen in the west, south-east Indian coast

Two new species of seaweed have been discovered named *Hypnea indica* (after India) and *Hypnea bullata* (because of the blisterlike marks on its body – bullate), the seaweeds are part of the genus *Hypnea* or red seaweeds.

Newly discovered Red seaweeds

1. They grow in the intertidal regions of the coast, namely the area that is submerged during the high tide and exposed during low tides.
2. The genus *Hypnea* consists of calcareous, erect, branched red seaweeds. There are 61 species of which 10 were reported in India.
3. While *Hypnea indica* was discovered Kanyakumari in Tamil Nadu, and Somnath Pathan and Sivrajpur in Gujarat, *Hypnea bullata* was discovered from Kanyakumari and Diu island of Daman and Diu.

Food industry

1. Species of *Hypnea* contain the biomolecule carrageenan, which is widely used in the food industry.
2. As the two species have been found on the west and south-east coasts of India, it suggests good prospects for their cultivation which can be put to good use economically.
3. The study also reports one other species of *Hypnea* for the first time in Indian coasts, *Hypnea nidifica*. The extensive calcareous deposits on the body that has been observed also provide room for thought. Several recent studies have shown that algae with calcareous mineral deposits are prone to damage from ocean acidification – the aftermath of climate change.
4. As carbon dioxide in the atmosphere gets dissolved in ocean waters, the seawater becomes more acidic. Algae like *Hypnea* cannot survive in acidic seawater, hence, the only way to help these species is to reduce atmospheric carbon dioxide levels by adopting sustainable lifestyle choices.



Is the LHC on the brink of discovering new physics?

Once in a way, the world of physics is in a state of upheaval – experiments are carried out that reveal limitations to older, established theories, and new physics is born. In this manner, in March 2021, a wave of excitement propagated through the particle physics community when researchers from the LHCb experiment at CERN, situated in the Franco-Swiss border, announced the results of their latest analysis of data.

Particle zoo

1. Broadly speaking, elementary particles are classified into the particles called baryons – which include protons, neutrons and their antiparticles the antiprotons etc. The “middle mass” particles, roughly speaking, are called the mesons and they include members such as the K and B particles.
2. You then have the leptons, which include the electron and its cousins the muon and tau particles and the anti-particles.
3. At a still smaller scale, there are tiny particles called quarks and gluons. There are six flavours of quarks: up, down, truth, beauty, charm and strange. They too have antiquarks associated with them.
4. In this particle zoo, while the baryons are made up of combinations of three quarks, the mesons contain two quarks, more accurately a quark and antiquark pair, and the leptons are truly fundamental and are thought to be indivisible.
5. Until now it is believed that the electron, muon and tauon and their antiparticles, though they differ in mass, behave similarly in particle interactions.

Colliding particle beams

1. By interactions here, is meant the following: If a huge particle accelerator such as the LHC were to accelerate beams of hadrons (such as protons) to very high speeds, a fraction of that of light, and then cause them to collide.
2. Basically, smash through the repulsive nuclear forces and shatter them, the hadrons would break up into constituents which would recombine to form short-lived particles, which would decay into stabler states. Roughly speaking, during this process, they are imaged in a huge multistorey detector and the number of specific processes and particles are counted.