

UPSC Daily Current Affairs 11 Jun 2021

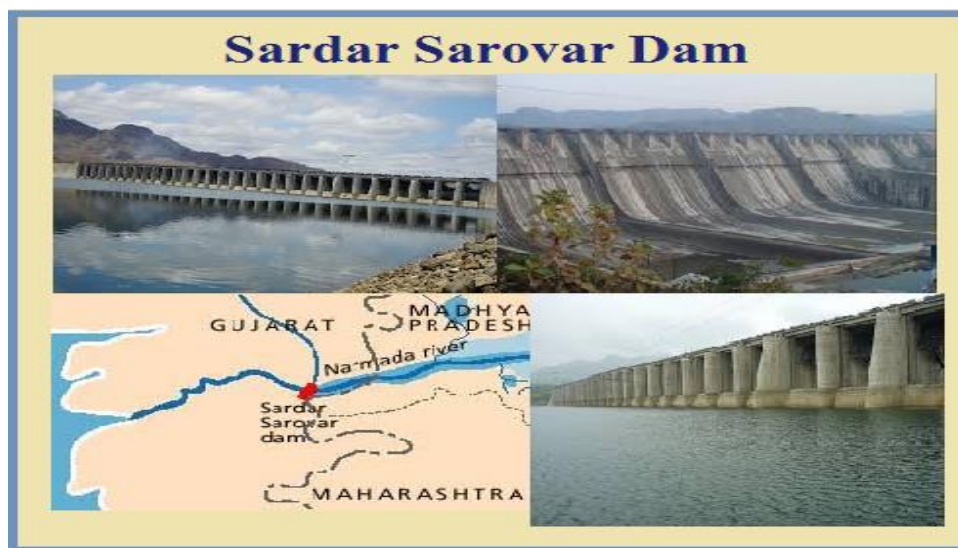
1. Sardar Sarovar Dam

(Topic- GS Paper I –Geography, Source- The Hindu)

Why in the news

- The Sardar Sarovar Narmada Dam is a terminal dam built on the Narmada River at Kevadia in Gujarat's Narmada district has usually no water for irrigation during summers.
- However, for the first time in the history of the dam, this year in the ongoing summer the dam released about 1.3 Million Acre Feet (MAF) water for irrigation between April 1 and May 31 in its command area of 21.29 lakh hectares.

About Sardar Sarovar Dam



- It is called the 'lifeline of Gujarat' which is built on Narmada River.
- River Narmada is a classic case of **Integrated River Basin Planning, Development, and Management**.
- The water storage available in all major, medium, and minor dams on the main river and its tributaries, shared amongst four party states – Gujarat, Rajasthan, Madhya Pradesh and Maharashtra — in the ratio stipulated by the 1979 award of the **Narmada Water Dispute Tribunal**.

2. Odisha's tribals flee village fearing jab

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(Topic- GS Paper II –Governance, Source- The Hindu)

Why in the news?

- Recently, Kandh Tribes of in Odisha's Rayagada district fled the village after locking up their houses to avoid taking the COVID-19 vaccine due to vaccine hesitancy.

More on the news

- Hesitancy has been a major issue for district administrations across the State.
- Last month, the Rayagada district administration had to sit with the Dongria Kondhs, a Particularly Vulnerable Tribal Group (PVTG), for days to make them agree to vaccination.
- Close to 1,000 Dongria Kondhs have so far been administered the vaccine.
- Similarly, it was difficult to convince **Chuktia Bhunjia**, another PVTG residing in the Sunabeda plateau of Nuapada district, on vaccination.

The tribesmen said they feared they would die soon after getting the jab.

About Vaccine hesitancy

- WHO defines Vaccine hesitancy as a delay in acceptance or refusal of vaccines despite the availability of vaccination services.
- Vaccine hesitancy has been reported in more than 90% of countries in the world.

Reasons for Vaccine Hesitancy

Misinformation

- The main issue with Vaccine hesitancy is misinformation.

Religious propaganda

- Religious propaganda that the vaccine may contain microbes, chemicals and animal-derived products which is forbidden by religious laws.

Social media

- Social media is used in stirring fear in people by falsely blaming vaccines for unrelated diseases are the bedrock of the Vaccine hesitancy all across the globe.
- For example, recently some sections in India are refraining from the polio vaccine. This is due to the misconception that the polio vaccine caused illness, infertility and was ineffective.

Vaccine-derived diseases

- Oral Polio Vaccines (OPV) contains weakened but live poliovirus.
- This virus from the vaccine is excreted by immunized children which can move from one person to another.

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- This allows the virus to stick around and mutate to a more virulent form, raising the threat of vaccine-derived poliovirus (VDPV).
- Inconvenience in accessing vaccines is also the leading cause of Vaccine hesitancy.

Concern

- Tackling vaccine hesitancy is not only important for achieving universal vaccination but also to uphold human rights and medical ethics during the vaccination drive.

Not New for India

- The incidents of vaccine hesitancy leading to confrontations with health authorities are not new in India.

India intensified its efforts in 1973 to fight small pox through vaccination.

- Several drastic measures were used to contain the disease.
- Back in 1880, the British Government of India passed the Vaccination Act, followed by the Compulsory Vaccination Act in 1892, to combat the Smallpox epidemic.
- Non-vaccination without sufficient cause resulted in jail time.
- **The last of these laws was repealed as late as 2001.**

Section 2 of the Epidemic Diseases Act of 1897

- It confers state governments with wide ranging executive authority to “take, or require or empower any person to take, such measures and... prescribe such temporary regulations to be observed by the public or by any person or class of persons as it shall deem necessary to prevent the outbreak of such disease or the spread thereof”.

The National Disaster Management Act of 2005

- It gives the national government similar draconian command. In the end, the Union is more likely to leave such policy decisions to the states.
- While public health is a Directive Principle of State Policy (Article 47), “Public Health and Sanitation” features in the State List (Item 6).

Legal Ground to resist Mandatory Vaccination

- Citizens have at least two legal grounds to resist any attempts at mandatory vaccination.

First, every individual has a right to life.

- This extends to the right to refuse medical treatment.
- **In Aruna Shanbaug v Union of India**, the Indian Supreme Court made a clear distinction between 'active' and 'passive' euthanasia.
- While an individual may not actively end his life, he may refuse medical treatment that has the same result.

Second, individuals may claim religious grounds.

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- This argument is far weaker. Although the Constitution protects essential religious practices, such rights are “subject to public order, morality and health” (Article 25).

Steps should be taken by the Government

- **As a first step**, the government needs to create a platform which enables collaborative learning of district administration and health workers.
- This can include how **Maharashtra’s Nandurbar district administration** is using mobile teams to tackle vaccine hesitancy or how in rural Chhattisgarh folk songs are being used to spread the right information on vaccination.
- **Second**, groups and geographies with the highest vaccine hesitancy need to be identified and targeted communication interventions need to be created to address their concerns.
- **Third**, misinformation around vaccines even at the international level is creating havoc in rural areas as the false post attributed to a Nobel laureate showed us last week.
- The National Media Rapid Response Cell (NMRRC) set up under the Covid-19 vaccine communication strategy needs to alert district collectors across India about vaccine fake news in real time.
- **Fourth**, Governments need to rope in celebrities, community leaders and mass influencers to generate credible voices for vaccination, just like
 - For example: **Amitabh Bachchan did for the Pulse Polio campaign.**
 - So far only the state of Punjab has appointed official ambassador **Sonu Sood for vaccination.**
- **Finally**, a comprehensive review and evaluation of the Government of India’s Covid-19 vaccine communication strategy needs to be conducted considering the fast pace of infection and the ever-changing scenarios in vaccine hesitancy.

3. All India Survey on Higher Education (AISHE) 2019-20

(Topic- GS Paper II –Governance, Source- The Hindu)

Why in the news?

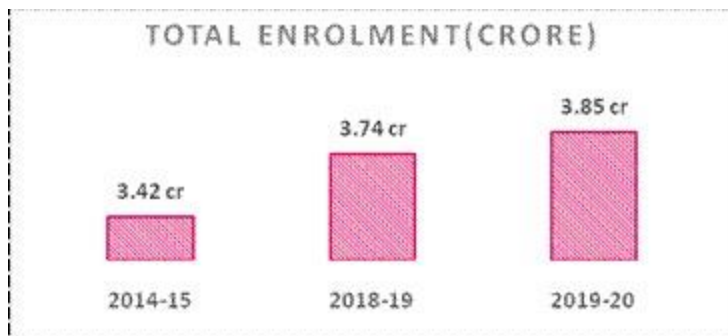
- Union Education Minister has recently released the report of All India Survey on Higher Education 2019-20.
- This Report provides key performance indicators on the current status of Higher education in the country.

Key features of All India Survey on Higher Education Report 2019-20

Total Enrolment in Higher Education

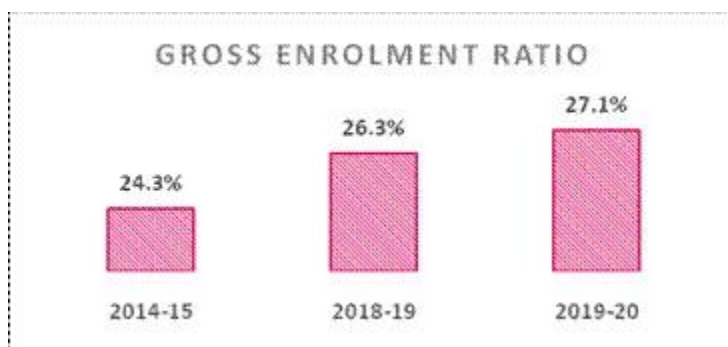
- Total Enrolment in Higher Education stands at 3.85 crore in 2019-20 as compared to 3.74 crore in 2018-19, registering a growth of 11.36 lakh (3.04 %).
- Total enrolment was 3.42 crore in 2014-15.

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Gross Enrolment Ratio (GER)

- Gross Enrolment Ratio (GER), the percentage of students belonging to the eligible age group enrolled in Higher Education, in 2019-20 is 27.1% against 26.3% in 2018-19 and 24.3% in 2014-2015.



Gender Parity Index (GPI)

- Gender Parity Index (GPI) in Higher Education in 2019-20 is 1.01 against 1.00 in 2018-19 indicating an improvement in the relative access to higher education for females of eligible age group compared to males.

Pupil Teacher Ratio

- Pupil Teacher Ratio in Higher Education in 2019-20 is 26.

Other information

- In 2019-20: Universities: 1,043(2%); Colleges: 42,343(77%) and stand-alone institutions: 11,779(21%).



- Around 3.38 crore Students enrolled in programmes at under-graduate and post-graduate level.
- Out of these, nearly 85% of the students (2.85 crore) were enrolled in the six major disciplines such as Humanities, Science, Commerce, Engineering & Technology, Medical Science and IT & Computer.
- The Total Number of Teachers stands at 15, 03, 156 comprising of 57.5% male and 42.5% female.

4. Atlantic Charter 2021

(Topic- GS Paper II –International Relation, Source- The Hindu)

Why in the news?

- Recently, US President Joe Biden and UK Prime Minister Boris Johnson are expected to agree on a new "Atlantic Charter" that will reaffirm US-UK "special relationship."

About Atlantic Charter 2021

- Public safety is paramount in the Atlantic Charter 2021.
- The Charter needs to deliver international protocols that are straightforward and easy to implement across the globe.
- This can only be done if the travel industry on both sides of the Atlantic is consulted and involved from the outset.
- The charter is also expected to outline eight areas with the **Prime Minister and President will “resolve to work together for the benefit of humanity”**, including recognising “more recent challenges” including the threat from cyber attacks, acting urgently on climate change, and “supporting the world to bring an end to, and recover from, the coronavirus pandemic

History and background of Atlantic Charter

- The Atlantic Charter was a joint declaration issued during World War II (1939-45) by the United States and Great Britain that set out a vision for the postwar world.
- First announced on August 14, 1941, a group of 26 Allied nations eventually pledged their support by January 1942.
- Among its major points were a nation’s right to choose its own government, the easing of trade restrictions and a plea for postwar disarmament.
- The document is considered one of the first key steps toward the establishment of the United Nations in 1945.

Atlantic Charter included eight common Principles

- The Atlantic Charter included eight common principles.

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- Among them, the United States and Britain agreed not to seek territorial gains from the war, and they opposed any territorial changes made against the wishes of the people concerned.
- The two countries also agreed to support the restoration of self-government to those nations who had lost it during the war.
- Additionally, the Atlantic Charter stated that people should have the right to choose their own form of government.
- Other principles included access for all nations to raw materials needed for economic prosperity and an easing of trade restrictions.
- The document also called for international cooperation to secure improved living and working conditions for all; freedom of the seas; and for all countries to abandon the use of force.

5. Terror in the Sahel

(Topic- GS Paper II –International relation, Source- The Hindu)

Why in the news?

- Recently, the massacre of at least 160 people in a border village in Burkina Faso over the weekend is a grim reminder of the threat the Sahel region faces from Islamist terrorism.

More on the news

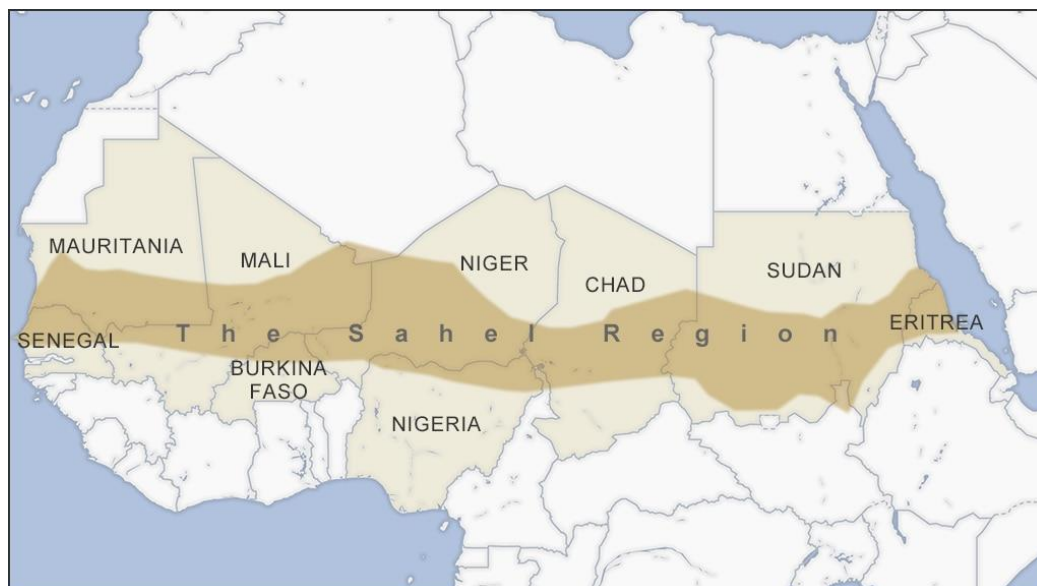
- Nobody has claimed responsibility, but Burkinabe authorities have named the Islamic State in the Greater Sahara (ISGS), which has carried out hundreds of terror strikes in recent years.
- The security situation in Burkina Faso, which saw its first major Islamist terrorist attack in 2015, has deteriorated steadily, especially along the borders with Niger and Mali.

Counter-insurgency operations

- Four main terror outfits operate in the region - the ISGS, the Islamic State West Africa Province (ISWAP), the Jama'at Nasr al-Islam wal Muslimin, the local al-Qaeda branch in Mali, and Boko Haram.
- Of these, the ISGS and Jama'at Nasr are reportedly in alliance to expand their influence in the BurkinaMali-Niger border region, where they shoot down anyone who does not declare their loyalty to the jihadists.
- Boko Haram and the ISWAP are fighting each other but control territories in northeastern Nigeria.

About Sahel Region

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- The Sahel is the ecoclimatic and biogeographic realm of transition in Africa between the Sahara to the north and the Sudanian savanna to the south.
- It stretches across the south-central latitudes of Northern Africa between the Atlantic Ocean and the Red Sea.
- The Sahel part of Africa includes from west to east parts of northern Senegal, southern Mauritania, central Mali, northern Burkina Faso, the extreme south of Algeria, Niger, the extreme north of Nigeria, the extreme north of Cameroon and Central African Republic, central Chad, central and southern Sudan, the extreme north of South Sudan, Eritrea and the extreme north of Ethiopia.

6. CHIME telescope

(Topic- GS Paper III –Science and Technology, Source- The Hindu)

Why in the news?

- Recently, Scientists with the Canadian Hydrogen Intensity Mapping Experiment (CHIME) have assembled the largest collection of fast radio bursts (FRBs) in the telescope's first FRB catalogue.

Rare in the field of Astronomy

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- While catching sight of an FRB is considered a rare thing in the field of radio astronomy, prior to the CHIME project, radio astronomers had only caught sight of around 140 bursts in their scopes since the first FRB was spotted in 2007.

About fast radio bursts (FRBs)

- These are oddly bright flashes of light, registering in the radio band of the electromagnetic spectrum, which blaze for a few milliseconds before vanishing without a trace.
- These brief and mysterious beacons have been spotted in various and distant parts of the universe, as well as in our own galaxy.

Origin not Known

- Their origins are unknown and their appearance is highly unpredictable.
- With more observations, astronomers hope soon to pin down the extreme origins of these curiously bright signals.
- The FRB was part of one of the **magnetar's most prolific flare-ups**, with the X-ray bursts lasting less than a second.
- The radio burst, on the other hand, lasted for a thousandth of a second and was thousands of times brighter than any other radio emissions from magnetars seen in the Milky Way previously.
- It is possible that the FRB-associated burst was exceptional because it likely occurred at or close to the magnetar's magnetic pole.
- The telescope has detected a whopping 535 new fast radio bursts in its first year of operation itself, between 2018 and 2019.

Related Information

About magnetar

- As per NASA, a magnetar is a neutron star, “the crushed, city-size remains of a star many times more massive than our Sun.”

- The magnetic field of such a star is very powerful, which can be over 10 trillion times stronger than a refrigerator magnet and up to a thousand times stronger than a typical neutron star's.

About Canadian Hydrogen Intensity Mapping Experiment(CHIME)

- The Canadian Hydrogen Intensity Mapping Experiment (CHIME) is an interferometric radio telescope at the Dominion Radio Astrophysical Observatory in British Columbia.
- CHIME is a partnership between the University of British Columbia, McGill University, the University of Toronto and the Canadian National Research Council's Dominion Radio Astrophysical Observatory.

7. India may lose 3-10% GDP annually by 2100 due to climate change, says report

(Topic- GS Paper III –Economics, Source- The Hindu)

Why in the news ?

- According to a report released by the London-based global think tank Overseas Development Institute, India may lose anywhere around 3 to 10 per cent of its GDP annually by 2100 and its poverty rate may rise by 3.5 per cent in 2040 due to climate change.
- **The report, titled ‘The Costs of Climate Change in India’, looks at economic costs of climate-related risks in the country and points to the possibility of increased inequality and poverty.**

Key highlights

- The report finds that even if the temperatures are contained to two degrees Celsius, India will lose 2.6 percent GDP annually, and in case the global temperatures were to increase to 3 degrees Celsius, this loss will magnify to 13.4 per cent annually.
- An analysis of the Ganges-Brahmaputra-Meghna and Mahanadi deltas (over 60 per cent of cropland and pastureland in these regions is devoted to satisfying demand from elsewhere) shows the climate induced disappearance of this activity will lead to an economic loss of 18–32 per cent of GDP.

Increase India’s national poverty rate

- The combination of rising cereal prices, declining wages in the agricultural sector and the slower rate of economic growth attributable to climate change “could increase India’s national poverty rate by 3.5 per cent in **2040 compared to a zero-warming scenario**”.
- This equates to around 50 million more poor people than there otherwise would have been in that year, and while both urban and rural populations will face the brunt of rising cereal prices, it will be the rural population that will be impacted harder.

8. Brood X

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(Topic- GS Paper III –Environment, Source- The Hindu)

Why in the news?

- Recently, US President Joe Biden’s first trip abroad was delayed unexpectedly when a swarm of cicadas bombarded the plane Air Force One, which was about to take off for the UK.
- Swarms of these insects have been spotted in a number of American states. These are part of a group named Brood X, based on their life cycles and periodic appearances.

About Brood X



- The term ‘brood’ refers to a population of cicadas that is isolated from other populations because of differences in their year of emergence or locality.
- Cicadas live underground for extended periods of time, typically 13 or 17 years, and feed on roots of trees both underground and above it.
- According to the US National Park Service (NPS), Brood X is the largest brood of 17-year cicadas and is found in Pennsylvania, northern Virginia, Indiana and eastern Tennessee.

What do cicadas do underground for 17 or 13 years?

- When underground, cicada nymphs go through five stages of development.
- Once they become adults, which take about 17 years for some periodical cicadas, the males emerge from underground.
- While it is not clear why cicadas take so long to develop, some researchers believe that it could be because they want to avoid predators above the soil.
- When they come out, they shed their exoskeleton (outer skin) to take their winged form.