

**GOVERNANCE****Same Sex Marriage**

Recently, the Central Government opposed same-sex marriage in Delhi High Court stating that a marriage in India can be recognised only if it is between a “biological man” and a “biological woman” capable of producing children.

**Key Points**

- Petitions, seeking recognition of same sex marriages under the Hindu Marriage Act (HMA), 1955 and the Special Marriage Act (SMA), 1954, were filed in 2020.

**Centre’s Response/Argument:****Supreme Court’s Order:**

- In reading down the provision of Section 377 of the Indian Penal Code (IPC), the Supreme Court only decriminalised a particular human behaviour but neither intended to, nor did in fact, legitimise the human conduct in question.

**Societal Morality:**

- There exists a “legitimate State interest” in limiting the recognition of marriage to persons of opposite sex. The considerations of “societal morality” are relevant in considering the validity of a law and it is for the Legislature to enforce such societal morality and public acceptance based upon Indian ethos.

**Not in Consonance with Existing Laws:**

- The fundamental right under Article 21 is subject to the procedure established by law and it cannot be expanded to include the fundamental right for same sex marriage to be recognised under the laws which in fact mandate the contrary.
- Article 21 of the constitution guarantees the right to life. This right cannot be taken away except through a law which is substantively and procedurally fair, just and reasonable.
- Any interference with the existing marriage laws would cause complete havoc with the delicate balance of personal laws in the country.

**Sanctity of Marriage:**

- Living together as partners or in a relationship with a same-sex individual is “not comparable” with the “Indian family unit concept” of a husband, wife and children, arguing that the institution of marriage has a “sanctity”.

**Legality of same-sex marriages in India:**

- The right to marry is not expressly recognized either as a fundamental or constitutional right under the Indian Constitution.
- Though marriage is regulated through various statutory enactments, its recognition as a fundamental right has only developed through judicial decisions of India’s Supreme Court.
- Such declaration of law is binding on all courts throughout India under Article 141 of the Constitution.

**Important Supreme Court Decisions:**

- Marriage as a Fundamental Right (Shafin Jahan v. Asokan K.M. and others 2018):
- While referring to Article 16 of Universal Declaration of Human Rights and the Puttaswamy case, the SC held that the right to marry a person of one’s choice is integral to Article 21 of the Constitution.
- Article 16 (2) in the Indian constitution provides that there cannot be any discrimination on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them.
- The right to marry is intrinsic to the liberty which the Constitution guarantees as a fundamental right, is the ability of each individual to take decisions on matters central to the pursuit of happiness. Matters of belief and faith, including whether to believe are at the core of constitutional liberty.

LGBTQ Community Entitled to all Constitutional Rights (Navjet Singh Johar and others v. Union of India 2018):

- The SC held that members of the LGBTQ community “are entitled, as all other citizens, to the full range of constitutional rights including the liberties protected by the Constitution” and are entitled to equal citizenship and “equal protection of law”.

**Way Forward**

The LGTBQ community needs an anti-discrimination law that empowers them to build productive lives and relationships irrespective of gender identity or sexual orientation and place the onus to change on state and society and not the individual.

Once members of the LGBTQ community “are entitled to the full range of constitutional rights”, it is beyond doubt that the fundamental right to marry a person of one’s own choice has to be conferred on same sex couples intending to marry. More than two dozen countries have legalized same-sex marriage.

## INDIAN ECONOMY

### Flexible Inflation Target

The Reserve Bank of India (RBI) in its Currency and Finance (RCF) report for the year 2020-21 has said that the current inflation target band (4% +/-2%) is appropriate for next 5 years.

#### **Key Points**

##### **Inflation Targeting:**

- It is a central banking policy that revolves around adjusting monetary policy to achieve a specified annual rate of inflation.
- The principle of inflation targeting is based on the belief that long-term economic growth is best achieved by maintaining price stability, and price stability is achieved by controlling inflation.
- Strict inflation targeting is adopted when the central bank is only concerned about keeping inflation as close to a given inflation target as possible, and nothing else.
- Flexible inflation targeting is adopted when the central bank is to some extent also concerned about other things, for instance, the stability of interest rates, exchange rates, output and employment.

##### **India’s Flexible Inflation Target Framework:**

- The central bank and the government agreed in 2015 on a policy framework that stipulated a primary objective of ensuring price stability while keeping in mind the objective of growth.
- The Flexible Inflation Target (FIT) was adopted in 2016. This has put India on par with other nations in terms of flexible inflation targeting.
- The Reserve Bank of India Act, 1934 was amended to provide a statutory basis for a FIT framework.
- The amended Act provides for the inflation target to be set by the Government, in consultation with the RBI, once every five years.

##### **The FIT Framework:**

- India adopted a flexible inflation targeting mandate of 4 (+/-2) percent and headline consumer price inflation was chosen as a key indicator.
- Purpose: Inflation targeting is known to bring more stability, predictability, and transparency in deciding monetary policy.
- This is because of the argument that rising prices create uncertainties and adversely affect savings and investments.
- Fixed Accountability: The framework made the RBI more accountable to explain to the government if it fails to meet the inflation targets.
- The flip side of this is such targets will restrain the RBI from taking any tight or accommodating monetary policy stance.

##### **RBI’s Stand (Findings of the RCF Report):**

- The trend inflation has fallen from above 9% before FIT to a range of 3.8-4.3 % during FIT, indicating that 4% is the appropriate level of the inflation target for the country.
- An inflation rate of 6% is the appropriate upper tolerance limit for the inflation target.
- On the other hand, a lower bound above 2% can lead to actual inflation frequently dipping below the tolerance band.
- While, a lower bound below 2% will hamper growth, indicating that an inflation rate of 2% is the appropriate lower tolerance bound.
- During the FIT period, monetary transmission has been full and reasonably swift across the money market (trading in very short-term debt instruments) but less than complete in the bond markets.
- While there has been an improvement in transmission to lending and deposit rates of banks, external benchmarks across all categories of loans and deposits could improve transmission.

## INTERNATIONAL RELATION

### Ceasefire Along Line of Control

India and Pakistan have agreed to observe the 2003 ceasefire agreements along the Line of Control (LoC) and all other sectors.

The agreement comes in the wake of over 5000 instances of Cross Fire Violations (CFVs) along the Line of Control (LoC) and other areas in Jammu and Kashmir, resulting in 46 fatal casualties in 2020.

The decision was taken after discussion between the two Director Generals of Military Operations (DGsMO).



#### Key Points

##### 2003 Ceasefire Agreements:

- The original ceasefire agreement was reached in November 2003, four years after the Kargil War (1999).
- The 2003 ceasefire agreement remains a milestone as it brought peace along the LoC until 2006. Between 2003 and 2006, not a single bullet was fired by the jawans of India and Pakistan.
- But since 2006, ceasefire violations have become the norm with increasing frequency.

##### Backchannel Diplomacy:

- Several signs indicate that back channel diplomacy led up to the talks and helped produce a joint statement between the two sides, beginning with Pakistan Army chief General's call for resolving the Kashmir issue "peacefully" earlier in the month of February 2021.
- Pakistan supported India's five proposals for collaboration at the South Asian level on containing Covid-19.
- India allowed the aircraft carrying Pakistan Prime Minister a clear passage to Sri Lanka, where the Pakistani leader declared a USD 50 million defence line of credit for Colombo.
- However, during these apparent signs of back channel negotiations, both sides have maintained their respective positions on the Kashmir issue.
- After the Pakistan government moved to provide provisional provincial status for Gilgit Baltistan in November 2020, India hit out saying Gilgit Baltistan was an "integral part of India".

##### Significance of the Latest Re-commitment to the 2003 Agreement:

- The agreement may contribute to an improvement of the security situation on the ground in Kashmir.
- India has often alleged that many of the ceasefire violations were aimed at providing cover to infiltrating militants. Infiltration attempts may now drop, and go some way in meeting a key Indian demand on cross-border terrorism.

##### India - Pakistan Recent Developments:

- The two sides last connected at the highest level during the Christmas day of 2015, when Indian Prime Minister landed in Lahore for an unannounced visit to meet Pakistani Prime Minister.
- Dialogue broke down soon thereafter because of the Pathankot airbase attack of 2nd January, 2016, which was followed by the attack at the garrison in Uri and the Indian response with a surgical strike along the border.
- Bilateral ties continued to nosedive because of the Pulwama terror attack of 14th February, 2019, and the Balakot operation by India.

### Line of Control

The Line of Control (LoC) emerged from the 1948 ceasefire line negotiated by the United Nations (UN) after the Kashmir War.

It was designated as the LoC in 1972, following the Shimla Agreement between the two countries.

LoC is demarcated upto the Siachen Glacier (Point NJ9842)- the world's highest battlefield.

LoC is delineated on a map signed by the Director General of Military Operations (DGMO) of both armies and has the international sanctity of a legal agreement.

## SCIENCE AND TECHNOLOGY

### Genetically Modified Organisms as Imported Food Crops

The Food Safety and Standards Authority of India (FSSAI) in a recent order has set 1% threshold for Genetically Modified Organisms (GMO) in food crops imported into India.

Earlier in August 2020, FSSAI had issued the order that 24 food crops the country imports would need a 'non-GM-origin-cum-GM-free certificate' issued by a competent authority.

### Key Points

#### Genetically Modified Organisms (GMOs):

#### What is a GM crop?

A crop which has a gene artificially inserted into it from another species, even unrelated, to give it some desired properties. GM crops are mostly either pest-resistant or herbicide-tolerant

#### Are there other GM crops in India?

No, the government has not approved commercial cultivation of other GM crops, though efforts have been made for brinjal and mustard

### GM CROPS IN INDIA A PRIMER

#### When did India get its first GM crop?

The first GM crop variety approved for commercialisation was Bt cotton. Bollgard-I, which provided immunity against the pink bollworm and developed by Monsanto, was given the go ahead in 2002. Monsanto released Bollgard-II in 2006. India has become the world's largest producer of cotton partly due to Bt cotton, which accounts for over 90% of the total cotton acreage in the country

- These are living organisms whose genetic material has been artificially manipulated in a laboratory through genetic engineering.
- This creates combinations of plant, animal, bacteria, and virus genes that do not occur in nature or through traditional crossbreeding methods.

#### Genetically Modified Crops:

- Conventional plant breeding involves crossing of species of the same genus to provide the offspring with the desired traits of both parents.
- Genus is a class of items such as a group of animals or plants with similar traits, qualities or features.
- Bt cotton is the only Genetically Modified (GM) crop that is allowed in India. It has alien genes from the soil bacterium *Bacillus thuringiensis* (Bt) that allows the crop to develop a protein toxic to the common pest pink bollworm.
- Herbicide Tolerant Bt (Ht Bt) cotton, on the other hand is derived with the insertion of an additional gene, from another soil bacterium, which allows the plant to resist the common herbicide glyphosate.
- In Bt brinjal, a gene allows the plant to resist attacks of fruit and shoot borers.
- In DMH-11 mustard, genetic modification allows cross-pollination in a crop that self-pollinates in nature.

#### Legal Position of GM crops in India:

- In India, the Genetic Engineering Appraisal Committee (GEAC) is the apex body that allows for commercial release of GM crops.
- Use of the unapproved GM variant can attract a jail term of 5 years and fine of Rs. 1 lakh under the Environment Protection Act, 1986.

#### Regulation of Imported Crops:

The task of regulating GMO levels in imported consumables was initially with the Genetic Engineering Appraisal Committee (GEAC).

Its role was diluted with the enactment of the Food Safety and Standards Act, 2006 and FSSAI was asked to take over approvals of imported goods.

## **ENVIRONMENT AND BIODIVERSITY**

### **NGT Suggests National River Rejuvenation Mechanism**

Recently, the National Green Tribunal (NGT) directed the Ministry of Jal Shakti to devise an appropriate National River Rejuvenation Mechanism for effective monitoring of steps to curb pollution and for rejuvenation of all polluted river stretches across the country.

#### **Key Points**

##### **Assessment of the CPCB:**

##### **Findings:**

- According to the 2016-17 assessment of the Central Pollution Control Board (CPCB), the number of polluted stretches of the country's rivers has increased to 351 from 302 two years ago, and the number of critically polluted stretches — where water quality indicators are the poorest—has gone up to 45 from 34.
- Among them, 117 such river stretches are in the States of Assam, Gujarat, and Maharashtra.

##### **Basis of the CPCB Assessment:**

- The CPCB, since the 1990s, has a programme to monitor the quality of rivers primarily by measuring Biochemical Oxygen Demand (BOD), which is a proxy for organic pollution—the higher it is, the worse the river.
- The CPCB considers a BOD less than 3 mg/l an indicator of a healthy river.

##### **Initiative Taken:**

- The NGT had constituted a Central Monitoring Committee to prepare and enforce a national plan to make over 350 river stretches across the country pollution free as it has caused serious threat to safety of water and environment.

##### **About the Latest Direction:**

##### **Observation:**

- There has been deterioration in the quality of water in rivers in spite of the Water Act which was enacted way back in 1974 which was intended to bring about improvement.

##### **Establishment of NRRM:**

- NGT suggested the mechanism could be called 'National River Rejuvenation Mechanism (NRRM). NRRM may consider setting up a National, State or district environment data grid at appropriate levels as an effective monitoring strategy.

##### **Expansion in the Scope of NRRM:**

- The process of rejuvenation of rivers need not be confined to only 351 stretches but may be applicable to all small, medium and big polluted rivers, including those dried up.

##### **Implementation:**

- Effective measures should be taken by Chief Secretaries of all States and UTs in terms of action plans for abatement of pollution and rejuvenation of rivers.
- The Chief Secretaries are also required to personally monitor progress at least once every month and the NRRM every quarter.
- The accountability for failure to comply with the direction for payment of compensation will be of the Chief Secretaries concerned.

##### **Causes of Polluted River Stretches:**

- Rapid urbanisation and lack of efficient waste disposal systems.
- Industrial Cities on the banks of rivers.
- Run-off from agricultural activities, etc.

##### **Impact of Pollution:**

- The World Bank estimates that the health costs of water pollution in India equal three percent of India's GDP.
- It has also been suggested that eighty percent of all illnesses in India and one-third of deaths can be attributed to water-borne diseases.
- The danger Ganga's polluted water poses is not only to the humans but also to the animals. Some of the important threatened species include, more than 140 fish species, 90 amphibian species, reptiles such as the Gharials, and mammals such as the South Asian River Dolphin.

##### **Related Constitutional Provisions:**

- Article 21: The fundamental right to clean the environment, and further, pollution-free water, has been protected under the broad rubric of the right to life.
- Article 51-A (g): It mandates as a fundamental duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife.

**Initiatives to Tackle Water Pollution:****National Water Policy (2012):**

- It aims to take cognizance of the existing situation, to propose a framework for creation of a system of laws and institutions and for a plan of action with a unified national perspective.
- Started by the Ministry of Water Resources, it highlights the importance of water for human existence as well as for economic development related activities.
- It suggests frameworks to conserve water resources through optimal, economical, sustainable and equitable means.

**National Water Mission (2010):** It ensures integrated water resource management leading to water conservation, less wastage, equitable distribution forming better policies.

- National Mission for Clean Ganga (NMCG) which envisages a five-tier structure at national, state and district level to take measures for prevention, control, and abatement of environmental pollution in river Ganga.
- It aims to ensure continuous adequate flow of water so as to rejuvenate the river Ganga.

**Namami Gange Project:** It integrates the efforts to clean and protect the Ganga River in a comprehensive manner.

**ODISHA DEVELOPMENT****Migratory Birds and Chilika Lake**

Migratory birds in and around Chilika lake and Bhitarkanika National Park have started leaving earlier (in February) than other years, as temperatures in Odisha (in and around Chilika lake) began to soar.

- The birds usually arrive in the region in November and migrate back around mid-March or early April when the temperature hovers around 39 degree Celsius.

**Key Points**

- Migratory Species: Every year in winter, migratory birds arrive at the water bodies around Chilika Lake, Asia's largest salt-water lagoon and Bhitarkanika, the second-largest mangrove forest in India (the largest being the Sunderbans, West Bengal).
- They flew in from places as far off as Siberia, Afghanistan, Iran, Iraq, the Himalayan region and central Europe.

**Reasons for Early Departure:**

**Warming of the Region:** The average temperature of Bhubaneswar (located 35 kilometers from Chilika) recorded for the month of February was 34-35 degrees Celsius between 2015 and 2019.

**Decreasing Water Levels:** Rising temperature coupled with the decreasing water levels in the lake also contributed to this early migration.

**Chilika Lake:**

- Chilika is Asia's largest and world's second largest lagoon.
- It is the largest wintering ground for migratory birds on the Indian sub-continent and is home to a number of threatened species of plants and animals.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satpada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.

**Kalijai Temple** - Located on an island in the Chilika Lake.

**Bhitarkanika National Park:**

Bhitarkanika National Park is one of Odisha's finest biodiversity hotspots and is famous for its mangroves, migratory birds, turtles, estuarine crocodiles, and countless creeks.

The Bhitarkanika is represented by 3 Protected Areas, the Bhitarkanika National Park, the Bhitarkanika Wildlife Sanctuary and the Gahirmatha Marine Sanctuary.

Bhitarkanika is located in the estuary of Brahmani, Baitarani, Dhamra, and Mahanadi river systems.

It is said to house 70% of the country's estuarine or saltwater crocodiles, conservation of which was started way back in 1975.

**IMPORTANT FACTS FOR PRELIM****Saras Aajeevika Mela 2021**

Recently, the Union Minister for Rural Development inaugurated Saras Aajeevika Mela 2021 at Noida Haat.

More than 300 rural self-help groups and craftsmen from 27 states are participating in the Mela.

**Key Points****About:**

- It is a programme to transform rural India in general and the lives of rural women in particular.
- During the Mela, workshops on product packaging and design, communication skills, social media publicity and Business to Business marketing will be organised to educate the rural self-help groups and craftsmen.

**Organiser:**

- It is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) under the Ministry of Rural Development (MoRD) organised by the Council for Advancement of People's Action and Rural Technology (CAPART).
- CAPART is an autonomous body set up by the Ministry of Rural Development to interface between the government and Non-governmental Organizations (NGOs) that seek to improve the quality of life in India's rural areas.

**Objective:**

- To bring the rural women Self Help Groups (SHGs) under one platform so that they can showcase their skills, sell their products, and help them build linkages with bulk buyers.
- Through participation in SARAS Aajeevika Mela, these rural SHG women will get vital national level exposure to understand the demand and taste of urban customers.

**Significance:**

The Mela acts as an integrated approach towards women empowerment.

The Initiative is well aligned with the government's vision of Atma Nirbhar Bharat.

**DAILY ANSWER WRITING PRACTICE**

**Qns. Hydrogen is being dubbed as the alternative fuel. However, there are many problems associated with the leveraging of hydrogen technology. Discuss.**

Ans:

Recently, the government has launched the National Hydrogen Energy Mission (NHEM) in Budget 2021. The NHEM proposes a roadmap for using hydrogen as an energy source and augmenting India's growing renewable capacity with the hydrogen economy.

Hydrogen is a clean source of energy and considered an alternative source of renewable energy. However, there are many challenges before leveraging it.

**Pros of Hydrogen as a fuel**

- Renewable and Abundant: It's the most abundant element in the universe, is lighter, energy-dense, and two-three times more efficient than burning petrol.
- It may take some time to acquire it, but it is renewable, so no one would have to worry about wasting it like other sources of fuel.
- No Catastrophic Emissions: Another unique trait that separates hydrogen from other fuel sources is that it is non-toxic and non-polluting.
- India's electricity is heavily coal-dependent. Hydrogen will replace fossil fuels, address pollution, and oil-price rise.
- It will benefit transportation (contributes 1/3rd of India's greenhouse-gas emissions), iron and steel, and chemicals sectors.

**Cons of Hydrogen as a fuel**

- In spite of being a relatively cheaper source of energy for many, hydrogen also comes with its share of shortcomings as well.
- Expensive to Extract: Hydrogen only exists in chemical compounds like hydrocarbon and water. However, it can be separated using the method of electrolysis, which is quite expensive.
- Lack of Infrastructure: There is no infrastructure that is there to replace hydrogen as the prime source of fuel (e.g. petrol or diesel) for land vehicles.
- Safety Issue: Hydrogen is highly combustible. It is stored at very high (up to 700 bar) pressure, but the tank is outside the passenger bay. This makes the explosion risk very high.

- Further, hydrogen is at a lower density than gasoline, it has to be kept at lower temperatures to maintain its liquid form and effectiveness as a fuel source.

**Conclusion**

India has set the goal to decarbonize by 2050. In this pursuit, it envisages installing 175 GW of renewable energy capacity by 2022. In this context, the National Hydrogen Energy Mission is a step in the right direction.

**DAILY QUIZ**

1. Consider the following statements:

1. The development of the Bhakti movement took place in the eleventh century in northern India
2. Guru Ravidas was a devotee of lord Shiva.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) **Neither 1 nor 2**

2. Consider the following statements:

1. Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
2. Chilika Lake is the largest salt-water lagoon of Asia.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

3. Consider the following statements regarding 'Genetically Modified Crops':

1. It is a plant breeding process that involves crossing of species of the same genus to provide the offspring of desired traits.
2. DMH-11 mustard is the only Genetically Modified (GM) crop that is allowed in India.
3. Council of Scientific and Industrial Research (CSIR) is the apex body that allows for commercial release of GM crops.

Which of the statements given above is/are not correct?

- a) 1 and 2 only
- b) 2 only
- c) **2 and 3 only**
- d) 3 only

4. Consider the following statements:

1. Dissolved Oxygen (DO) is a measure of the amount of free oxygen available in river systems.
2. The higher value of Biochemical Oxygen Demand (BOD) indicates low DO content of water.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2

5. With reference to the Saras Aajeevika Mela 2021, consider the following statements:

1. It is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM).
2. It aims to provide a platform to rural women to showcase their skills and products.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) **Both 1 and 2**
- d) Neither 1 nor 2