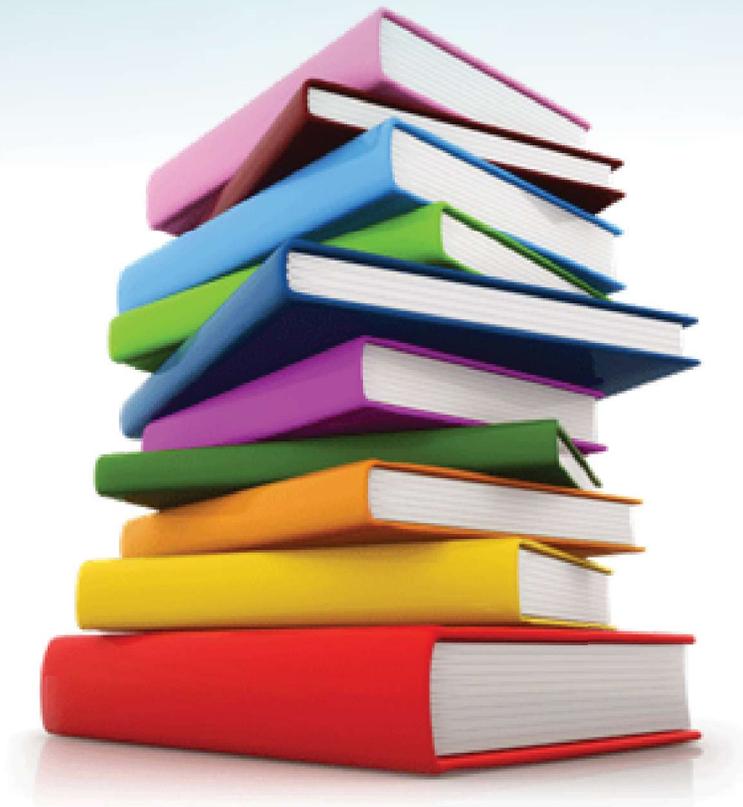




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CURRENT AFFAIRS

AUGUST 2022

Sovereign Gold Bond

What is the Sovereign Gold Bond?

If we buy gold bars and gold coins as an investment, then we are buying physical gold. But if we invest in these gold bonds floated in the market, which allow us to capture the price movement and also pay a fixed interest just like bank fixed deposits, then it will give great returns. A sovereign gold bond is a simple and a superior alternative to buying physical gold.

Sovereign Gold Bond Scheme 2022-23

- Government is in consultation with the Reserve Bank of India and decided to issue Sovereign Gold Bonds in tranches for 2022-23. These Gold Bonds are issued as Government of India Stock under the Government Securities (GS) Act, 2006
- In November-2015, the SGB scheme was also launched. Its main objectives are:- to reduce the demand for physical gold, shift a part of the domestic savings which is used for the purchase of physical gold into financial savings.
- SGB are issued by the Reserve Bank of India (RBI) on behalf of the GOI.
- SGB are sold through Commercial banks, post offices, Stock Holding Corporation of India Limited (SHCIL), and recognised stock exchanges, NSE and BSE, either directly or through agents.
- These bonds are restricted for sale to resident individuals, Hindu Undivided Families (HUFs), trusts and charitable institutions.
- SGB prices are linked to the price of gold of 999 purity (24 carats) published by India Bullion and Jewelers Association (IBJA), Mumbai.

- A fixed rate of 2.5% per annum is applicable on the scheme, payable semi-annually.
- The interest on Gold Bonds is taxable as per the provision of Income Tax Act, 1961.
- The capital gains tax arising on redemption of SGB to an individual has been exempted.
- Gold bonds can be purchased in the multiples of one unit, up to certain thresholds limit for different investors. Minimum permissible investment is 1 gram and maximum limit for retail (individual) investors and HUFs is 4 kilograms (4,000 units) each per financial year. For trusts and similar entities, an upper limit of 20 kilograms per financial year is applicable.
- Maturity period of gold bonds is of eight years, with an option to exit the investment after the first five years.

SOVEREIGN GOLD BOND ADVANTAGES OVER PHYSICAL GOLD

- SGB allows you to get a lower price than physical gold when applied online.
- It gives a fixed interest rate.
- It has no holding or storage cost.
- These bonds carry a sovereign guarantee since they are issued by the government.
- There is no capital gains tax at maturity or redemption for individual investors.
- There is an indexation benefit if the same is transferred before maturity for non-individual investors.
- These bonds are highly liquid. This is because the investment can be used as collateral for loans

Source :- PIB.Gov

Puneet Bhatia

CLOUDBURSTS- A THREAT

CONTEXT: In this season of the monsoon rainfall HILLY STATES have witnessed the consistent incidences of the cloudbusting phenomenon. These led to consequent flash floods and landslides in those regions leading to discontinuity in regular mode of life.

IN-DEPTH

India being a monsoonal country and a land with diverse topography has also occurrences of the various climatic phenomenon. The cloudbursts is one such major issue, particularly in the hilly and mountainous states where its occurrence is most frequent and common in the rainy season.

WHAT ARE CLOUDBURSTS?

Cloudbursts, as defined by the IMD, is so intense rainfall in any region which is 10cm or above in an hour and over a spread of 10km * 10 km. This definition makes the identification of it easier. However, in many regions, due to lack of gauging and measuring mechanism sometimes only higher rainfall can be termed as cloudbursts. But we need to consider that it essentially involves a high rainfall in a short time and also a localized phenomenon.

THE REASONS FOR ITS OCCURRENCE ?

The cloudbursts is, as mentioned , a localized phenomenon and hence effective reasons to generalize are difficult. But, still most commonly it occurs when over in the region has high cloud cover and high relative humidity. However the cloud failed to condensate timely and gathered more humidity. When those clouds get uplifted by the mountain or any obstruction, it leads to condensation immediately. This led to intense rain in a very short time as happened in a well known cloudburst event in 2013 in Kedarnath.

WHERE DO THEY OCCUR ?

In India, the occurrence of it is so common in the hilly region as it offers upliftment and condensation. States as Himachal Pradesh, Uttarakhand and Jammu and Kashmir union territory are more prone to it. Some incidents in Arunachal Pradesh, Meghalaya also noted. The Himalayan states are, thus more prone to it than other mountainous region as conditions of high relative humidity and mighty height of the Himalayas makes it possible to happen.

WHAT ARE THE AFTER RESULTS?

Cloudbursts as severe climatic condition and hence leads to after ripple effects as

- Flash floods
- Landslides
- Mudslides
- Mass movements

Which lead to significant impact on socio-economic activities of the region as road blockage, death toll (Kedarnath, Himachal Pradesh), migration and rehabilitation etc.

ARE THEY PREDICTABLE ?

Cloudbursts are difficult to predict well in advance like monsoon forecasting. As it is mainly driven by localized conditions, predictions require many data inputs and detailed analysis.

DOES IT INVOLVE ANY ROLE OF CLIMATE CHANGE?

According to Down to Earth, as like any other climatic phenomenon, the occurrence of the cloudbursts also has a role of climate change. The Oceans are warming more which boosts the moisture content of the clouds and their potential for intense rain. Thus, climate change has direct and indirect bearing on this phenomenon.

PREVENTION AND MITIGATION MEASURES

Well in advance weather forecasting is the best strategy to deal with. Use of local weather data collection and analysis is needed. Doppler radar can be an effective information provider.

Identifying the possible hotspots and zone of frequent occurrences can help to manage the disaster. The management strategy as given by NDMA plan and formulation of local disaster management committee to deal with such localised disasters must be ensured.

Cloudburst as a climatic extremity has a huge impact on the development and stability of the hilly region. Effective weather forecasting and prevention and mitigation strategies can avoid significant damage led by cloudbursts.

Akshay gurubhaiye

Undertrials – A case study of denial of justice

Recently in *Satender Kumar Antil v. CBI* case, the SC has asserted mandatory compliance with Sections 41 and 41A of the Criminal Procedure Code (CrPC) to give primacy to bail for undertrials. This has again reignited the debate on the rights of undertrials and the denial of justice.

- Previously in a 2014 judgement, SC has asked not to arrest the accused automatically when the offence is punishable with imprisonment for a term which may be less than seven years.
- On the contrary, SC (in *Vijay Madanlal Chaudhary v. Union of India* (PMLA case)) upheld the arbitrary conditions of bail under Section 45 of the Prevention of Money Laundering Act, thus discarding the “presumption of innocence” principle.

Right of Speedy Trails:

SC in *Husain ara Khatoon* case has held that under Art. 21 a person has the right to speedy trial and justice.

Undertrials in India:

According to the ‘Prison Statistics India 2015’ report, released by the National Crime Records Bureau (NCRB), 67% of the people in Indian jails are under trials (people not convicted of any crime and currently on trial in a court of law). In which Bihar had the highest proportion of under trials, followed by Jammu & Kashmir. The occupancy rate at the all-India level at the end of 2015 was around 114%.

Reasons for the delay in justice:

- Overburdened and understaffed judiciary as according to the Law Ministry (2016) there are only 18 judges per million population, while the Law Commission has recommended a minimum of 50 judges per million.
- According to “Access to Justice survey”, legal system in India is too expensive for most of the citizens. About 90% of the litigants earn less than Rs. 3 lakh/annum.
- Most of the people don’t use govt. legal aid because of the lack of communication and accountability.

- There are a smaller number of Prison officials, who have to regularly review the legal status of under trials to determine whether they have spent enough time in custody to warrant release under Section 436 A of Cr.P.C.

Laws in this regard:

The Cr.P.C was amended to introduce Section 436A, to reduce overcrowding of prisons. Under this section, an undertrial prisoner shall be released on personal bond if he or she has undergone detention for a period extending to half of the maximum period of imprisonment s/he likely to get.

What needs to be done?

- Keeping in view the human rights of the prisoners, it is essential that they are given reasonable space and facilities in jails. [US Multi story building model can be used].
- An undertrial review committee, as asked by the SC to review the status of under trails.
- The Legal Services Authorities, Lok Adalat and ADRs must be popularized to be used.

Alternatives:

- Open Prisons: Supreme Court has directed the Centre to consider setting up of open prisons, also called as minimum-security prison under Prisons Act, 1900. There are around 69 open prisons in India but only convicts can come here, not the under-Trailers. It has various benefits like reduced overcrowding, Psychological benefits and skill enhancement.
- Justice Roy Committee: Free phone call a day to his family members, trial through video-conferencing, at least 1 lawyer for every 30 prisoners and Special fast-track courts.
- Currently, there are no laws in India that expressly allow conjugal visits to inmates.

Efforts:

- National Legal Services Authority (NALSA) has launched a Web Application for free Legal Services to Prisoners.
 - It will show data regarding the status of representation through a barrister

(pvt. or govt. or not represented), among inmates languishing in jails.

- Thus, this will be useful for all the relevant authorities to monitor the grant of legal aid to the prisoners in order to ensure that absolutely no prisoner goes unrepresented right from the first day of his production in the court.
- **Project Progress Monitoring System (PPMS)/E-courts mission project:**
 - The project implements ICT in Indian judiciary from filing of appeal to execution level. It also provides regional languages support.
 - It will increase transparency, accountability & cost-effectiveness.

Thus, from above debate it can be seen that the denial of justice is indeed a problem in case of undertrials. The blame for the same lies not only at government but also at judiciary. For this the suggestions mentioned above must be implemented.

Vikas gupta

Non Fungible Tokens (NFTs)

- NFTs are tokens that we can use to represent ownership of unique items.
- Items like videos, photos, drawings, GIFs, music, selfies, art, collectibles, real estate and even a tweet can be turned into an NFT, which can then be traded online by using cryptocurrency.
- “Tokenizing” these real-world tangible assets makes buying, selling, and trading them more efficient while reducing the probability of fraud.
- NFTs can also function to represent individuals’ property rights, identities and more.
- They can only have one official owner at a time and they’re secured by the blockchain.
- NFT stands for non-fungible token. Non-fungible is an economic term that you could use to describe things like your art, song, furniture etc. These things are not interchangeable for other items because they have unique properties.
- NFTs are cryptographic assets on a blockchain with unique identification codes and metadata.

- In early March 2021, a group of NFTs by digital artist Beeple sold for over \$69 million. The sale set a precedent and a record for the most expensive pieces of digital art sold thus far. The artwork was a collage of Beeple's first 5,000 days of work.
- **Currently, popular NFT marketplaces are: OpenSea.io, Rarible, Foundation.**
- Although these NFTs platforms are host to thousands of NFT creators and collectors, before buying them, proper research should be done. Some artists have fallen victim to impersonators who have listed and sold their work without their permission.
- Unlike cryptocurrencies, they cannot be traded or exchanged at equivalency. This differs from fungible tokens like cryptocurrencies, which are identical to each other and, therefore, can serve as a medium for commercial transactions.

How Is an NFT Different from Cryptocurrency?

- NFT stands for non-fungible token. It's generally built using the same kind of programming as cryptocurrency, like Bitcoin or Ethereum and both being built on Blockchain but still both are different from each other
- Cryptocurrencies are "fungible," it means they can be traded or exchanged for one another. They're also equal in value— one Bitcoin is always equal to another Bitcoin. Crypto's fungibility makes it a more trusted means of transactions on the blockchain.
- NFTs are non-fungible. Each has a digital signature that makes it impossible for NFTs to be exchanged for or equal to one another. Non Fungible means NFTs aren't mutually interchangeable.

NFTs are used for the following cases

- Investments and collateral
- Digital content
- Physical items
- Gaming items
- Domain names

Risks associated with buying NFTs

- Several incidents of NFT scams have been reported including the emergence of fake marketplaces, unverified sellers.
- Unverified sellers also impact real artists and sell copies of their artworks for half prices.
- Hacking of the NFT collections.
- Ownership issues
- Environment issues, for validation of transactions require crypto mining, as a result high powered computers that run at a very high capacity, affecting the environment

Anoop singh

Cheetah from Namibia set to reach in sept: union minister

GS paper 3, conservation

Prelims: kuno palpur national park, NTCA

Mains: specification of cheetah,

Why is it in the news?

India is reintroduction 6 to 8 cheetah to the kuno-palpur in Madhya Pradesh, translocating from Namibia, these are African cheetah

Recently, the Union Minister for Environment, Forests, and Climate Change launched the 'Action Plan for Introduction of Cheetah in India' under which 50 of these big cats will be introduced in the next five years.

Background of the news

The Asiatic cheetah become extinct in India in 1948. Why so?



Cheetahs are the only carnivore to have gone extinct in India. The main reason for the extinction of cheetahs is hunting and habitat loss due to the rapid growth of industrialization in that era by the British government.

It is being recorded that the last three cheetahs were killed by the maharajah Ramanuja Pratap Singh Deo of Surgunja state, Koriya district now in Chhattisgarh in 1948

And in 1952, the Indian government officially declared the extinction of cheetahs in the country. It was also found in the book of historians of the medieval era, that the Mughal emperor Akbar, who reigned from 1556 to 1605, collected 9000 cheetahs for coursing.



Even some British policies were responsible for the extinction of the cheetah in India.

The Asiatic cheetahs are extinct in India, Iran, Central Asia, Afghanistan, and Pakistan. African cheetahs are vulnerable Asiatic is critically endangered with Iran having left with only 12 Asiatic Cheetahs in the Country.

The state wildlife board of Andhra Pradesh was the 1st who suggested the Indian government reintroduce cheetahs in India in 1955 on an experimental basis.

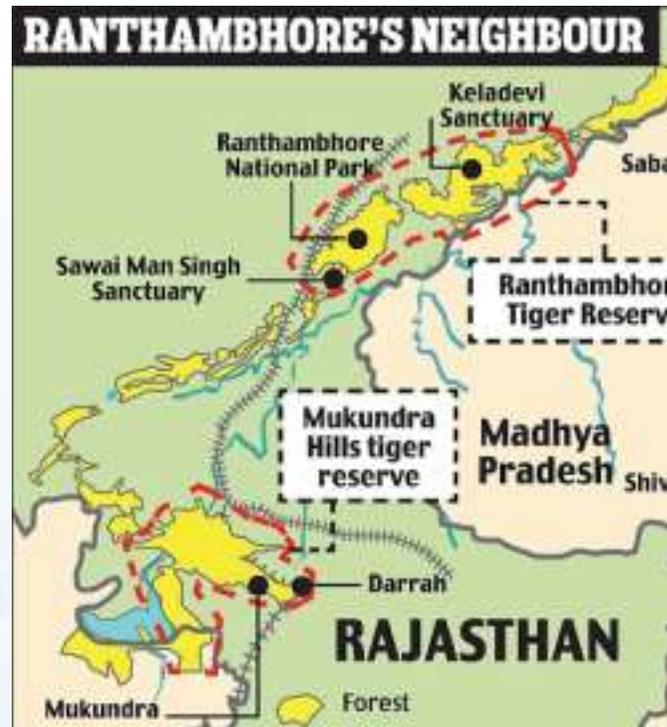
But, the attempt to bring cheetahs to India was revived once more in 2009, after a number of sites were checked and at last, Kuno-palpur was chosen as the most suitable for the reintroduction of cheetahs in India.

However, in 2010, the supreme court stayed the order to introduce cheetahs to Kuno-palpur. In January 2020 the supreme court passed the approval.

Finally, after 70 years, the cheetah will be welcomed by the Kuno-palpur of Madhya Pradesh, India which will be the only wildlife protected area in the world to host all four major cat species, i.e.

lion, tiger, cheetah, and leopard.

On their arrival, the cheetah will be kept at the enclosure in Mukundara Reserve in Rajasthan. Keeping, and breeding cheetahs in captivity is against the law in Namibia, so they can hunt in the wild.



The other sites recommended for holding and conservation breeding of cheetah in India, in controlled wild conditions are:

1. Nauradehi Wildlife Sanctuary (1,197 sq. km, habitat 5,500 sq.km), Madhya Pradesh
2. Gandhi Sagar Wildlife Sanctuary – Bhainsrorgarh Wildlife Sanctuary complex (~2500 sq.km), Madhya Pradesh
3. Shahgarh bulge in Jaisalmer, Rajasthan (4,220 sq.km)
4. Mukundara Tiger Reserve as fenced enclosure (~80 sq.km), Rajasthan

The animals will be maintained in 3-4 metapopulations with Kuno-palpur getting 6-8 cheetahs. The male cheetahs will be released prior to the female cheetah. This will prevent males from wandering away. Over 3 -4 years, we will acquire 50 cheetahs from South Africa and Namibia.

What is the national tiger conservation authority (NTCA)?

The National Tiger Conservation Authority (NTCA) has been constituted under section 38 L (1) of the Wildlife (Protection) Act, 1972.

The authority is consist of

the Chairperson, Vice-Chairperson, and members.

the authority is structured as the Minister in charge of the Ministry of Environment and Forests (as Chairperson),

the Minister of State in the Ministry of Environment and Forests (as Vice-Chairperson),
three members of Parliament, the Secretary,

Ministry of Environment and Forests and other members.

The National Tiger Conservation Authority (NTCA) inked a memorandum of understanding (MoU) with Indian Oil Corporation to relocate cheetahs from Africa to India, under Project Cheetah.

NTCA is the nodal agency authorized by MoEF&CC for funding, supervision and hand holding. Indian Oil will contribute its CSR funds to NTCA, which shall coordinate with the State Govt. of Madhya Pradesh and other agencies involved in the project.

What will be the benefits of the reintroduction of cheetahs in India?

There will be higher protection status in the Kuno-palpur national park as the whole world keeps an eye on it.

There will be a boost in the entire ecology

Resources brought in the protection will enhance livelihood options for locals of the Kuno-palpur national park

The project will create tremendous opportunities for ecotourism.

farhin

Anganwadi Scheme

Anganwadi Scheme

Why in news?

The Anganwadi scheme, created to assist children under the age of six, has not yet reached its full potential.

The Integrated Child Development Scheme (ICDS):

- One of the Government of India's major programmes, the initiative was introduced on October 2, 1975.
- It stands for one of the biggest and most distinctive early childhood care and development programmes in the entire globe.
- It is the most important representation of the nation's dedication to its children and nursing moms.
- The programme is a solution to the conflict between stopping the cycle of hunger, illness, diminished learning capacity, and mortality on the one hand and providing non-formal pre-school education on the other.
- The Scheme's beneficiaries include pregnant women, breastfeeding mothers, and children between the ages of 0 and 6.
- The government's Integrated Child Development Scheme (ICDS), which serves approximately 30 million children in the age range of 3-6 in 1.3 million centres nationwide, includes the Anganwadi system.

What role do parents play in the Anganwadi system?

- Parents are frequently referred to in ICDS reports as beneficiaries, passive recipients of rations, immunisation clinics, and more recently, schooling.
- Parents, on the other hand, do not see themselves or their kids in this way.
- For them, education is a method to achieve their goals and a route to social mobility so that their offspring can benefit from the possibilities they didn't get.
- Primary enrollment rates above 90% are a direct result of parents believing that education provides prospects for a better life.
- needs for their kids' math, writing, and English language abilities.
- It's simple to accomplish this.
- introducing young children to the English language in a comfortable, age-appropriate manner
- The greatest method to become fluent in any other language is to realise that it is the language that is spoken at home.

- A fantastic technique to encourage fine motor skills and future writing is to give them a pencil to scribble with for a few minutes each day, obviously without making them write letters and numbers constantly.
- By showing the wonder of math through enjoyable tasks like estimating, comparison, sorting, and seriation, math might be made simple.
- This lessens their aversion to arithmetic and the paralysis by analysis that prevents them from succeeding in STEM fields.

Way Forward

- Anganwadi centres might adhere to regular daily schedules that divide time between teacher-led and self-directed activities aimed at fostering the development of cognitive, literacy, and numeracy abilities.
- They can also have frequent Shiksha Choupals (parent-teacher gatherings) to show the parent community what learning is taking place in the Anganwadi and to increase their confidence in this organisation.
- In the next five years, it will be critical to launch a widespread awareness campaign about age-appropriate ECCE that includes parents as stakeholders.
- To activate Anganwadi 2.0 in the ECCE ecosystem, it is vital to embrace the power of “abhibhavaak-bhagidari” (parent participation).

Puneet Bhatia

‘SEEING THE UNSEEN: THE VALUE OF WATER’

August 23 to September 01 in the year 2022, is the week where the water experts, enthusiasts and environmentalists will gather in Stockholm, Sweden. The reason being the WORLD WATER WEEK CONFERENCE which invites all stakeholders to participate and deliberate on the status of the water and its related issues. The theme is **‘Seeing the unseen: The value of water’**.

DETAILS OF THE CONFERENCE

The conference has been organised by the Stockholm International water Institute(SIWI) since 1991 to bring all stakeholders at common place and discuss the

ways to deal with water issues. It brings out the participation of NGOs, water activists, research scientists, business enthusiasts and various international organisations.

WATER AND ITS UNSEEN VALUE

The Earth is possibly the only known planet which hosts a significant amount of the water. Surface has **71%** area occupied by the water leaving **29%** space for the continental landmass. The water distribution is highly uneven in the world and thus makes it more significant.

WATER AND LIFE

Of overall water on the surface hardly **2.5%** is drinkable freshwater in different forms and thus involves use by the living. It is possibly the mutual relation of the solar radiation and the water which makes life on the surface possible. In fact, of the living body it forms a significant proportion like for example the human body is made up of almost 60-70% water which can be tagged as '**water body**'. Water by means of hydrological cycle re-circulates and maintains its balance over the globe.

WATER AND CULTURE

Water is the most important determinant of the civilisation of humans. Even in ancient times, the preference of humans to settle was in the periphery of the lake, well and river which gives circular, semi-circular patterns of settlements. It is no wonder that the most ancient and enriching civilisations flourished on the banks of the rivers. The best example is **Indus valley civilisation** at the banks of the Indus, **Egyptian** at the Nile and **Mesopotamian** at the Euphrates-Tigris. Even in technology bombarded civilisation of modern times the preference for sea facing apartments and lake view houses shows the affinity of man towards water.

Many festivals of the world are water related and depend on the nature of water. As **Songkran** in

Thailand, Thingyan in Myanmar are a few examples. The water sports are also common and promote tourism as in **Kerala's snake boat race**.

WATER AND ECONOMY

Water dependent economy is the major thrust behind the current civilisation. Almost all major industries are dependent on the availability of water, for example the steel industry in Jamshedpur. Also the water as a means of transportation actually drives our economic growth. In the world, almost **80%** of world trade by volume is by marine routes and additionally supported by the inland navigational channels. Also booming water exporting industry, meat and processing, fishing and canning and tourism are major parts of the water economy.

WATER AND POLITICS

Water is a **major driver** of politics in the world and with incremental development of mankind the importance of water as a political tool will, no doubt, increase. The world can trace many political disputes originating from the water as it negatively impacts the federal character in India. Almost 10 water dispute tribunals are formed till date and many more demands are in the pipelines. Even internationally, there are numerous examples of countries fighting for water but rare examples of cooperation like **the Sankosh river treaty** between India- Bhutan.

WATER AND ECOSYSTEM

Water is the most important abiotic component of an ecosystem. It activates all major ecosystems phenomena and makes them enriching the earth. Water is an important biological resource which when utilised to the fullest potential can bring degrading ecosystem balance backtrack.

Thus water is **“life”** and everyone of us has to take his own part to make it more equitably and sustainably available to everyone (flora and fauna). Governments are taking their part seriously now with few exceptions and conferences like this are real breeding ground for water changes. The need is also to promote individual responsibility as problems like water scarcity can only be solved by it.

Akshay gurubhaiye

Tomato Flu/Fever

Tomato Flu

- Tomato flu/fever is a rare contagious disease of viral nature in humans.
- It is caused by Coxsackievirus A 16. It belongs to the Enterovirus family.
- It has been called tomato virus because the symptoms include small grape-like blisters that can actually grow as big as a tomato and are red like a tomato.
- Its symptoms are similar to dengue fever and Chikungunya virus.
- The flu is said to affect children below five years of age and infected children have skin irritation and severe dehydration issues.

Tomato Flu in India

Tomato flu is an unexplainable viral disease spreading in some states of India. It is a clinical variant of the Hand, Foot and Mouth Disease (HFMD), which was first reported in Kollam district in Kerala on May-6-2022, has now spread to three other states – Tamil Nadu, Haryana, and Odisha.

Symptoms of Tomato Flu

The symptoms of tomato flu are similar to chikungunya or dengue infection. The chief identified symptoms of this infectious disease are the following:

- Large, red-colored, and spherical blisters on multiple body parts.
- Body pain
- Tiredness and fatigue
- Rashes and irritation
- Nausea and vomiting
- Dehydration
- High-grade fever
- Swollen and painful joints
- Frequent coughing

- Patches and discoloration on various body areas: – hands, buttocks, and knees
- Runny nose and sneezing
- Abdominal pain and cramps

Cause of Tomato Flu

Presently, the exact cause of the infection is still undisclosed. Many researchers are still investigating the causative organism responsible for tomato flu. And it is a transmissible disease, the healthcare providers advise taking precautionary measures to avoid infection.

Is tomato flu a contagious infection?

Yes, Tomato flu is a contagious disease that spreads through direct contact. It is common among children due to lack of hygiene maintenance. The infectious virus remains in a child's body for many weeks after the infection subsides, making them favorable carriers. Adults can also transmit the virus while handling children without showing any signs and symptoms of the disease.

Treatment of Tomato Flu

- Tomato flu is a self-limiting infectious disease as the signs and symptoms resolve after a few days. It is a rare disease and has recently emerged, so no disease-specific medications are available.
- But still treatment of tomato flu is similar to diseases like chikungunya and dengue— isolation, rest, plenty of fluids, and hot water sponge for the relief of irritation and rashes.
- The doctors provide symptomatic care according to the infected child's needs and prescribe antipyretic and pain-relievers to subside symptoms.

Prevention of Tomato Flu

As we all know, prevention is the best treatment in a sudden unknown disease outbreak. That's why following are some preventive measures we should keep in mind:

- Avoid close & immediate contact with the infected person.
- Aware the children about the signs, symptoms and its side effects.

- Encourage children about hygiene maintenance and stopping thumb or finger sucking habits.
- Encourage the children to use a handkerchief in case of a runny nose or coughing.
- Fluid (water, milk or juice) intake should be increased to counter dehydration.
- Balanced & nutrition-rich diet to boost immunity.
- Isolate the infected patient.
- Good & sufficient rest and sleep to promote healing.
- Use warm water to clean skin or for bathing

Anoop Singh

India's Refugee Crisis

PLUTUS

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Current Affairs

India's Refugee Crisis

By the beginning of 2010, the nation had taken in close to 450,000 refugees from both within and beyond the area. The refugee flood started with the partition of India in 1947.

India did not ratify either the 1967 Protocol on the Reputation of Refugees or the 1951 Refugee Conference. India has no laws governing refugees, therefore there is no standard way to treat refugees there.

However, the greater issue of human rights and humanitarian law, as well as other areas of international law, like State responsibility and peacekeeping, have grown to be inextricably interwoven with refugee law.

What is India's current legal framework for handling refugees?

- All foreigners, including those who enter the country illegally, seek asylum, or overstay their visas, are treated equally in India.
- The Central government is authorised to find, arrest, and deport unauthorised foreign people under Section 3 of the Foreigners Act of 1946.
- Article 258(1) of the Indian Constitution allows for the removal of an illegal

foreigner by force, according to Section 5 of the Passport (Entry into India) Act, 1920.

- All foreign nationals (except Indian citizens living abroad) entering India on a long-term visa (more than 180 days) are required by law to register with a registration officer within 14 days of their arrival. This is in accordance with the Registration of Foreigners Act of 1939.
- 1955's Citizenship Act included provisions for citizenship renunciation, termination, and deprivation.
- Additionally, the Citizenship Amendment Act, 2019 (CAA) aims to offer citizenship solely to immigrants who were persecuted in Bangladesh, Pakistan, and Afghanistan who are Hindu, Christian, Jain, Parsi, Sikh, or Buddhist.
- India published a Standard Operating Procedure (SOP) that all relevant authorities must adhere to when interacting with foreign nationals who make refugee claims.
- Additionally, the life, liberty, and dignity of every human being are respected by the Indian Constitution.
- In *National Human Rights Commission v. State of Arunachal Pradesh* (1996), the Supreme Court ruled that while all rights are available to residents, everyone has the right to equality and the right to life. This includes foreign nationals.

How are refugees faring in India?

- Since gaining its independence, India has taken in many different refugee groups from its neighbours, including: Pakistani Partition refugees in 1947.
- Tibetan migrants who came in 1959.
- Early 1960s: Chakma and Hajong from modern-day Bangladesh.
- In 1965 and 1971, further Bangladeshi refugees.
- Tamils from Sri Lanka who fled during the 1980s.
- The most recent refugees from Myanmar were Rohingya in 2022.

Why does India not sign the 1951 Convention on Refugees?

- Problem with the Refugee Definition: The 1951 agreement defines refugees as those who have been denied their economic rights, but not their civil or

political rights.

- It is obvious that the developed world would bear a heavy burden if the violation of economic rights were to be considered a refugee.
- India believes that the 1951 treaty is mostly eurocentric and pays little attention to the South Asian nations. It will also have an impact on India's domestic laws and safety.

What difficulties do refugees in India face?

- **Fear and Uncertainty:** In society, refugees are not given much weight. They experience poor treatment from the locals and grow fearful and uneasy as a result.
- Because they do not share the same soil as the locals, they are frequently physically and emotionally abused by them.
- **Lack of Basic Amenities:** They struggle to obtain needs of life including food, housing, and job.
- They are compelled to work for meagre pay with no special rights or status.
- **Lack of a Clear Plan for Their Protection:** India's Ad Hoc Administrative Policy on Refugees has Produced a Confusion of Environment.
- Insecurity and exclusivity are caused by ignorance and misinformation within the refugee groups.
- **Time-consuming Identification Process:** The United Nations High Commissioner for Refugees issues a refugee card after determining the person's refugee status, however this procedure is laborious and can take up to 20 months to complete.
- If someone is apprehended by the police during that time, they will be imprisoned, arrested, and deported without even having access to the UNHCR.
- **Mislabeled as Immigrants:** Over the past few decades, a large number of residents of nearby nations have entered India illegally, not as a result of government persecution but rather to benefit from the country's better economic conditions.

What should be the next step?

- **Equitable and Effective Registration Procedure:** Procedures for determining

status should be made more equitable and effective while strengthening or maintaining standards in registration and identification.

- **Enhancing Basic Facilities:** It is important to provide access to necessities and services.
- These include expanding educational opportunities, supporting special needs programmes, and sustaining healthcare infrastructure.
- Making local residents aware of the need to provide housing for refugees and increase their ability to rely on themselves by giving them a temporary source of income.
- **Providing for the Safety of Women and Children:** In accordance with the Fundamental Duty contained in our Constitution, we must protect women and children who are refugees from violence and harassment on the part of locals or authorities.
- Every citizen is required by Article 51A (e) to disavow actions that are disrespectful to women's dignity.
- **Support in Emotions:** A person becomes a refugee due to events that are out of their control.
- He or she runs away because of political, socioeconomic, and human rights violations that make them fearful of being persecuted. In this case, in addition to financial support, we should strive to offer inclusivity and emotional support.

Vivek Raj

DRDO tested indigenous missile VL- SRSAM

Current Affairs

GS Paper 3

Prelims: About VL- SRSAM, DRDO

Mains: capabilities of VL- SRSAM

Why is it in the news?

The Defence Research and Development Organisation (DRDO) and the Indian

Navy on Tuesday successfully flight-tested the indigenously developed Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM) from the Integrated Test Range (ITR) at **Chandipur off the coast of Odisha.**



About VL- SRSAM

- **VL-SRSAM** stands for Vertical Launch – **Short Range Surface to Air Missile.**
- It is a quick reaction **surface-to-air missile** developed by Defence Research and Development Organisation (DRDO)

(A **surface-to-air missile** (SAM), also known as a ground-to-air missile (GTAM) or surface-to-air guided weapon (SAGW), is a missile designed to be launched from the ground to destroy aircraft or other missiles.)

- It has been designed and developed jointly by three facilities of the Defence Research and Development Organisation for the deployment of Indian Naval warships.
- It has **been designed in a way to neutralise various aerial threats** at close ranges including sea-skimming targets.

(**Sea skimming** is a technique many anti-ship missiles and some fighter or strike aircraft use **to avoid radar and infrared detection.**)



Design of VL-SRSAM

The design of VL-SRSAM is based on the Astra missile, which is a **Beyond Visual Range Air to Air missile**

- (Astra (“weapon”) is India’s first air-to-air all-weather beyond-visual-range active radar homing air-to-air missile, developed by the Defence Research and Development Organisation.)
- (A Beyond-Visual-Range missile (BVR) is an air-to-air missile that is capable of engaging at ranges of 20 nautical miles or beyond.)

VL-SRSAM is designed in such a way that it will be able to strike high-speed airborne targets at the range of 40 to 50 km and at an altitude of around 15 km.

What are the features of VL-SRSAM?

- **Cruciform wings:** they are four small wings arranged like a cross on four sides and give the projectile a stable aerodynamic posture.
- **Thrust Vectoring:** thrust vectoring is an ability to change the direction of the thrust from its engine to control the angular velocity and the attitude of the missile, an official said. (**Thrust** is the force that moves an aircraft through the air.)
- It is a **canisters system**, which means it is stored and operated from specially designed compartments.
- the canister controls the environment inside, thus making its transport and storage easier and improving the shelf life of weapons.

Significance

This favourable result will further intensify the defence capability of Indian Naval Ships against aerial threats.

Defence Mechanism:

Chaffs(originally called Window):

- It is a radar countermeasure in which aircraft or other targets spread a cloud of small, thin pieces of aluminium, metallized glass fibre or plastic, which either appears as a cluster of primary targets on radar screens or swamps the screen with multiple returns, in order to confuse and distract, developed in the 2nd world war
- Missiles to counter Anti-Ship missiles:
- These systems have to have a swift detection mechanism and quick response to warships.

What is DRDO?

- DRDO is the R&D wing of the Ministry of Defence, under the government of India with a perception to empower India with cutting-edge defence technologies and a mission to achieve self-reliance in critical defence technologies and systems, while equipping our armed forces with state-of-the-art weapon systems and equipment in accordance with requirements laid down by the three Services.
- The tag line of DRDO says “**Balasya Mulam Vigyanam**” which says the source of strength is science-drives the nation in peace and war. DRDO has a firm determination to make the nation strong and self-reliant in terms of science and technology, especially in the field of military technologies.
- DRDO was formed in 1958 from the amalgamation of the then already functioning Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO). DRDO was then a small organisation with 10 establishments or laboratories. Over the years, it has grown multi-directionally in terms of the variety of subject disciplines, number of laboratories, achievements and stature.
- Today the headquarter of DRDO is in New Delhi, with a network of more than 50 laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing and simulation, special materials, naval systems, life sciences, training, information systems and agriculture.

Farhin

Jupiter's new image

Gs paper 3

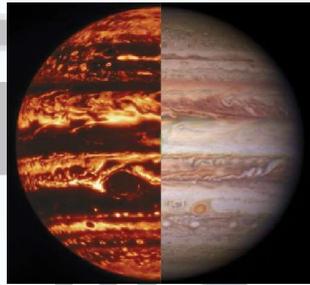
Prelims: about Jupiter, James Webb telescope

Mains: technological development in telescope and space study,

Why it is in news?

NASA has clicked new images of Jupiter, with the help of The JAMES Webb space telescope, the most powerful telescope till now.

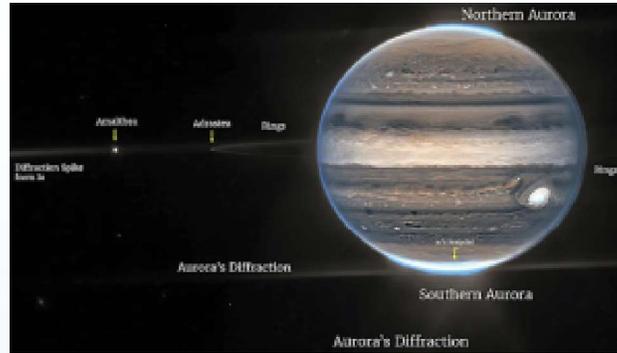
Things to know about Jupiter



- Jupiter is the 5th planet in our solar system, it is, by far, the largest planet in the solar system – more than twice as big as all the other planets combined. Jupiter, Saturn, Uranus, and Neptune are also known as Jovian or Gas Giant Planets. These are covered with a thick atmosphere, mostly consisting of helium and hydrogen.
- Jupiter's iconic Great Red Spot is a giant storm bigger than Earth that has raged for hundreds of years.
- Jupiter completes its single day in 10 hours called a Jovian day, however, takes about 12 Earth years to complete one orbit of the Sun called a Jovian year. Jupiter has a maximum number of moons i.e natural satellite, more than 75 moons.
- Jupiter's four largest moons are called the Galilean satellites named after Italian astronomer Galileo Galilei, who first observed them in 1610. These large moons, named Io, Europa, Ganymede, and Callisto, are each distinctive world.

- the Voyager mission, in 1979, discovered Jupiter's faint ring system. the most recent spacecraft arrived at Jupiter in 2016, there are nine spacecraft that have visited Jupiter till now. 7 of them flew by and 2 of them orbited the gas giant. Juno,

The new image of Jupiter



- Till now the image of Jupiter has always been the same, a yellowish-orange giant sphere. But, the latest images of Jupiter captured by NASA's newest James Webb telescope show the planet in a very different avatar.
- A greenish blue view of Jupiter can be seen in the latest infrared images of the planet reported by NASA.
- Earlier images of Jupiter's stormy Great Red Spot, Ring, Aurora, and Aurora at the North and South Poles were not clearly visible in any photo taken to date.
- The famous Great Red Spot of Jupiter, a storm so big that it could swallow Earth, appeared bright white in the image since it was reflecting a lot of sunlight, the space agency stated.
- Apart from this, all the parts of this planet are visible in a single line in a wide field picture. Its dim rings, its two satellites i.e. the moons Amalthea and Adrastea, and the bright stars are visible in the Milky Way behind them. The format of the picture was infrared. The infrared images were artificially tinted blue, white, green, yellow, and orange.

What is the James Webb telescope.?

- The James Webb Space Telescope is a large infrared telescope. It is designed in a way that it can study every phase in the history of the universe. This includes the formation of the solar system, the Big Bang, and other theories that support life on other planets.
- It has the capability to look at the past such as the first galaxies formed in the

early universe through its longer wavelengths. These wavelengths will help the telescope peer inside dust clouds from where the planets and stars are formed. NASA developed the James Webb Telescope worth \$10 billion with the assistance of the European Space Agency and the Canadian Space Agency.

- The telescope was launched to space on December 25, 2021, in Ariane 5 ECA rocket from French Guiana in South America. and is currently observing from Lagrange point 2, approximately 1.5 million km beyond Earth's orbit around the Sun. The telescope released its first image on July 11, 2022.

What are the main objectives of the James Webb Space Telescope?

- It is to find the first galaxies formed after Big Bang.
- It is to calculate and determine how galaxies evolved from their earlier formation
- It is also to observe the formation of stars from the first stages
- And To measure the physical and chemical properties of planetary systems

National Aeronautics and Space Administration (NASA)

The National Aeronautics and Space Administration is America's civil space program and the global leader in space exploration.

Established under the National Aeronautics and Space Act 1958

Headquarters: Washington, DC, USA

the main objectives of NASA

- To expand human knowledge of space
- To lead the world in space-related technological innovation
- To develop vehicles that can carry both equipment and living organisms into space
- To coordinate with international space agencies to achieve the greatest possible scientific advancements.

Farhin

Nepal Citizenship Amendment Act

Why in the news?

Nepali President Bidhya Devi Bhandari had sent back the Citizenship Amendment Act, 2006 back to the Pratinidhi Sabha i.e. the House of Representatives or the lower house of the Nepal Parliament, urging the members to reconsider the Act, which is claimed to be violating the principles of gender justices.

Why is this citizenship act needed?

1. Nepal was earlier a monarchy but it transitioned into a democracy beginning with the fall of the monarchy in 2006 and thus subsequent election of the Maoist government in 2008.
2. After the emergence of the multiparty system there was an adoption of the new constitution on 20 September 2015
3. All the Nepali citizens who were born before 20 September 2015 got citizenship through naturalization but their children remained without citizenship as for that there was need of a federal law which by that time had not been framed.
4. This amendment Act is expected to pave the way to citizenship for many such stateless youth as well as their parents.

What are the issues with Nepal Citizenship Amendment Act?

1. **GENDER INJUSTICES:** It has been criticized on the fact that it goes against the parameters of Gender injustices. It is described as follows:
 - **Article 11(2b):** According to this, a person born to a father or a mother with Nepalese citizenship can get citizenship by descent.
 - **Article 11(5):** According to this a person who is born to a Nepalese mother (who has lived in the country) and an unidentified father will also get citizenship by descent but this section is **humiliating for a mother as she has to declare that her husband is unidentified**, for the child to be eligible for citizenship.
 - But in this case the Nepali father, he will not have to make such declaration.

- It places a condition of permanent residency on the mother (and the child) which will determine the grant of citizenship for the child.

2. **CONTRAVENTION WITH THE PRESENT LAW:**

- **Article 11(7)** : According to this , a child born to a Nepalese mother and a father holding a foreign citizenship can get “naturalized citizenship” in accordance with the laws of Nepal which appears to contradict Article 11(2b).

Why has the amendment been framed?

- **Undermining of the culture:** There is always a concern among the orthodox sections of Nepal that Nepalese men, particularly from the Terai region that if continue to marry women from northern India then Nepalese cultural and social identity would be undermined because of this “Roti-Beti Ka Rishta” i.e Nepalese men marrying Indian women .
- **Cooling of period:** Many women could not become citizens of Nepal as they were legally subjected to the seven-year cooling off period before they could apply for citizenship in Nepal.
- As such women were stateless, children of such families were also often found to be without Nepalese citizenship.
- The new amendments have done away with the cooling off period for these stateless women.
- This will not only benefit the children of such families where the mother and children remained stateless for years but would also ensure a social egalitarian society.

Way Forward

- The reconsideration in the act is needed at this point of the hour but a real balance is to be required to maintained with the cultural identity as well. This will ensure both the goal of culture and social justice.

Samarth singh

'MISSING' SCIENTIFIC TEMPER IN INDIA

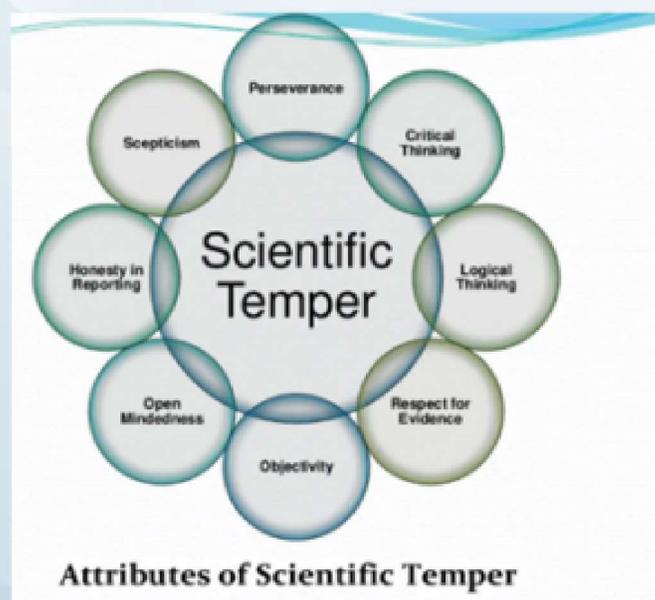
On the 75th independence day PM gave us the mantra to be a developed country by 2047. He also emphasised on the scientific temper and inculcation of that attitude in the society.

Scientific temper is not a new term to Indians as well to our highest law of the land i.e., the Constitution. It forms the very psyche of the rational and modern value based society which believes in science and its potential. The term holds much significance in the prevalence of some unscientific practices like witch hunting, irrational treatment of the disease and others. In this article I will try to explore more.

WHAT IS SCIENTIFIC TEMPER?

The term is also difficult to define as like to follow. It is a modest temper which is ready **to accept** new values, ideas and practices based on scientific clarity **even if** they are against the established norms and culture. It is a broad term which **demand**s analytical inquiry of the facts and then putting them on the burner of the science to test. The result is, no doubt, a more rational and humanistic approach.

Former PM Nehru famously said “scientific approach or temper and, or should be, **a way of life, a process of thinking, a way of acting and associating** with our fellowmen”.



DOES CONSTITUTION RECOGNISE IT?

Indian constitution being a '**Living document**' has ample space for rational and scientific society. It was added by **42nd** constitutional amendment as the **Part IVA** of the constitution. Part IVA deals with the citizenry duties and to make the Indian state an active citizen participating society.

There it mentions , in article 51A, "*It shall be the duty of every citizen of India to develop the scientific temper, humanism and the spirit of inquiry and reform.*" Thus it shall be the duty of every citizen to follow it in every sphere of life.

ARE WE FOLLOWING THIS DUTY?

Indian society as a mix of various cultures and values, practices inherently holds the value of scientific temper and humanism. The societal values of equality, rights, donation and other practices are indicative of duty bound citizens. Our school books and even religious textbooks also promote the spirit of inquiry and value of reform on which our child builds a culture of scientific achievements such as IPRs, various tech inventions and many supertech officers are Indians.

BUT,

Any duty is partially corrupt. Though we follow scientific temper by laws and on its face value, the following in its spirit still seems a distant dream. Take for example, even in the Government offices we still do 'Pooja' of the instruments and infrastructure which does not have any scientific rationality as such. Even in elections some jinx's are famous as Noida Jinx. Such a state promoted irrationality in the affairs which citizens considered then legitimate.

Even lack of scientific temperament is still prevalent by the untouchability (against Art 17), discrimination based on religion and work and social boycott for inter-caste marriage and witch hunting are examples of societal violations of the duty.

On an individual level we still think of ourselves as more rational and full of scientific temper. But here also seems some discrepancy as it's common family practice to keep menstruating women isolated though science says against it. We still change the root if black cat cuts in between. Even we see our results on specific PC or in a café or on mobile as if the result would change on others. Don't we do it?

HOW TO FIND – A MISSING ?

The scientific temper is **not the need but the necessity**. Active efforts are needed to put rational temperament in the society. Short term and long term measures can be put in place. As laws and regulations act against superstitions in states like Maharashtra and awareness in the society for rational values. State also needs to rectify its approach that should send the correct signal.

In the long run, **education is the best tool to change the world (Nelson Mandela)**. Our Gen Z and generations to come must be value based and scientifically oriented to contribute positively towards national development. Thus, it is our legal as well as humanly duty to follow scientific temper, humanism and continue the ignited flame of inquiry to make this great nation great again.

Akshay gurubhaiye

PLUTUS SGB Scheme 2022

SGB Scheme Series-II 2022-23

Why in News: SGB Scheme 2022-23 (Series II). In terms of Government of India Notification dated June 15, 2022, SGB 2022-23 (Series II) will be opened for subscription during the period August 22-26, 2022 with Settlement date August 30, 2022.

Sovereign gold bond scheme (SGB Series-II): The issue price of the Bond during the subscription period shall be Rs 5,197 (Rupees five thousand one hundred ninety seven only) per gram, as also published by RBI in their Press Release dated August 19, 2022.

Government of India in consultation with the Reserve Bank of India has decided to allow a discount of Rs 50 (Rupees Fifty only) per gram from the issue price to those investors who apply online and the payment is made through digital mode.

For such investors the issue price of Gold Bond will be Rs 5,147 (Rupees five thousand one hundred forty seven only) per gram of gold.

New issue of the government-backed gold bond scheme has opened and the scheme will remain open for subscription till 26th August 2022. The Reserve

Bank of India ((RBI) on behalf of the center has fixed issue price at ₹5,197 per gram. The bonds will be sold through banks, Stock Holding Corporation of India Limited (SHCIL), designated post offices and recognized stock exchanges — NSE and BSE. The tenor of the bond will be for a period of 8 years with an exit option after the 5th year to be exercised on the next interest payment dates.

According to market experts, one should subscribe to the second tranche of the sovereign gold bond scheme as it provided an alternative to gold investment giving an additional return in the form of interest income. They said that is opportune for the investors as the outlook for gold price is positive in the wake of rising global inflation.

Advising gold investors to subscribe to the new tranche of sovereign gold bond scheme 2022, Sugandha Sachdeva, Vice President — Commodity & Currency Research at Religare Broking said, “The latest and the second tranche of Sovereign Gold Bond Scheme 2022-23 is open for subscription from today onwards and would last for five days till August 26.SGB is a great alternative to investing in gold as it not only provides additional returns in the form of interest income, but is also free from default risk, and issues like maintenance, security, and purity. So yes, SGB would be the right choice for investors, who look for steady and hassle-free investment in gold.”

Echoing Sugandha Sachdeva’s views, Megh Mody, Commodities & Currencies Research Analyst at Prabhudas Lilladher said, “Gold is considered a hedge against inflation and in India, demand for gold is going to stay. Long term investors will buy gold whether it is physical or sovereign gold bond. With geopolitical worries and inflation still not controlled across the globe, one can subscribe to the new tranche of sovereign gold bond scheme 2022.”

Sovereign gold bond scheme benefits

Giving ‘subscribe’ tag to sovereign gold bond scheme, Nirpendra Yadav, Sr. Analyst — Commodity Research at Swastika Investmart listed out the following benefits of the gold bond scheme:

- 1] You will receive 2.5 per cent interest rate every year;
- 2] No expenses or other charges like ETF and Mutual funds; and
- 3] Guaranteed by the Government of India.

“Apart from the above-mentioned benefits, Sovereign Gold Bond prices are linked with Gold prices which most of the time rise on uncertainty, War, Pandemic, or

any natural calamity. So investors get the benefit of Gold prices along with interest on their investment,” said Nirpendra Yadav of Swastika Investmart.

“It is an opportune time to invest in Sovereign Gold Bonds, as the overall outlook for gold is positive with elevated inflationary pressures worldwide working as a key tailwind for the precious metal. Besides, worries about a global economic slowdown and lingering geopolitical risks will keep gold in demand for its safe haven status. Even as there may be short-term volatility in prices owing to the concerns about the monetary tightening path of the US Fed, the US central bank is likely to slow down the pace of rate hikes, considering its impact on the economic growth that will underpin gold prices.

Rising central bank gold purchases and upcoming festival demand will further support gold prices,” said Sugandha Sachdeva of Religare Broking adding, “Considering the macro-economic backdrop, gold is a safe and steady investment and a great tool to diversify one’s portfolio for better risk-adjusted returns over the long run.”

On gold price outlook, Megh Mody of Prabhudas Lilladher said, “MCX Gold has an overhead supply placed at ₹52,500, the yellow metal can plunge below ₹50,000 and reach in the zone of ₹48,500 levels. In the next one year it is likely to remain in the range of ₹48,500 to ₹52,500 levels. Comex Gold has a crucial support placed at \$1,680 per ounce levels. Breaching of this level can sink prices near to \$1,560 levels. For a couple of years it will be below \$1,700 and can remain in a range of \$1,450 to \$1,550 levels.”

Sovereign gold bond scheme details:

The minimum permissible investment limit in sovereign gold bond schemes is 1 gm of gold whereas maximum limit of subscription is 4 KG for individuals, 4 Kg for HUF and 20 Kg for trusts and similar entities per fiscal (April-March).

The central government, in consultation with the Reserve Bank of India, has decided to offer a discount of ₹50 per gram, less than the nominal value, to those investors applying online and the payment against the application is made through digital mode.

The price of the bond is fixed in Indian currency on the basis of a simple average closing price of gold of 999 purity, published by the India Bullion and Jewelers Association Limited for the last 3 working days of the week preceding the subscription period.

Sovereign Gold Bond Scheme: Was launched by Govt in November 2015, un-

der Gold Monetization Scheme. Under the scheme, the issues are made open for subscription in tranches by RBI in consultation with GOI. RBI Notifies the terms and conditions for the scheme from time to time. The subscription for SGB will be open as per the following calendar. The rate of SGB will be declared by RBI before every new tranche by issuing a Press Release.

As per RBI instructions “Every application must be accompanied by the ‘PAN Number’ issued by the Income Tax Department to the investor(s)” as the PAN number of the first/ sole applicant is mandatory.

Features

- To be issued by Reserve Bank India on behalf of the Government of India.
- The Bonds will be denominated in multiples of gram(s) of gold with a basic unit of 1 gram.
- The tenor of the Bond will be for a period of 8 years with exit option in 5th, 6th and 7th year, to be exercised on the interest payment dates.
- Minimum permissible investment will be 1 gram of gold.
- The maximum limit of subscribed shall be 4 KG for individuals, 4 Kg for HUF and 20 Kg for trusts and similar entities per fiscal year (April-March) notified by the Government from time to time. A self-declaration to this effect will be obtained. The annual ceiling will include bonds subscribed under different tranches during initial issuance by the Government and those purchased from the Secondary Market.
- In case of joint holding, the investment limit of 4 KG will be applied to the first applicant only.
- RBI will issue a Press Release stating issue price of the Bond before new Issue. Price of Bond will be fixed in Indian Rupees on the basis of simple average of closing price of gold of 999 purity published by the India Bullion and Jewelers Association Limited (IBJA) for the last 3 business days of the week preceding the subscription period.
- Payment for the Bonds will be through cash payment (up to a maximum of Rs. 20,000/-) or demand draft or cheque or electronic banking.
- The Gold Bonds will be issued as Government of India Stocks under Government Security Act, 2006. The investors will be issued a Holding Certificate for the same. The Bonds are eligible for conversion into Demat form.

- The redemption price will be in Indian Rupees based on the simple average of closing price of gold of 999 purity of previous 3 working days published by IBJA.
- All the branches of the State Bank of India are authorized to accept the subscription
- The investors will be compensated at a fixed rate of 2.50 per cent per annum payable semi-annually on the nominal value.
- Bonds can be used as collateral for loans. The loan-to-value (LTV) ratio is to be set equal to ordinary gold loans mandated by the Reserve Bank from time to time. The lien on the bond shall be marked in the depository by the authorized banks.

Note: The loan against SGBs would be subject to the decision of the bank/financing agency and cannot be inferred as a matter of right.

- Bonds will be tradable on stock exchanges within a fortnight of the issuance on a date as notified by the RBI.

Puneet Bhatia

Aadhaar and voter ID linking

Aadhaar and voter ID linking

Why in news?

The Election Commission has stated that filling out Form 6B's Aadhaar and Voter ID connection is entirely optional.

What past attempts have been made in this regard?

In the districts of Nizamabad and Hyderabad in 2014, the Election Commission of India (ECI) ran two pilot projects to integrate voter identification with Aadhaar.

The National Electoral Roll Purification and Authentication Programme (NER-PAP) was introduced by the ECI in April 2015.

However, the initiative was stopped by a Supreme Court decision in August 2015.

Why is Aadhaar linked to voter identification?

The Election Laws (Amendment) Bill, 2021, which aims to connect the Aadhaar to voter ID, was approved by the Lok Sabha.

The primary goal of the linkage is to prevent mistakes like duplicate voters on the electoral roster.

It is required to clean up the voting records due to the rise in migrant populations in urban sprawls, demographic changes brought on by the arrival of more eligible voters, and the death of elderly persons.

If the citizen has an Aadhaar ID card, the Ministry of Law and Justice modified Form 6 to make providing an Aadhaar number mandatory. Form 6 is used to authenticate the electoral roll.

But the Government has claimed that this process will be optional, as have later ECI authorities.

What objections have been raised to the linking?

- **Unconstitutional:** Activists point out that since an Indian citizen just needs to show proof of citizenship in order to receive a voter identification card, the rule may be deemed unconstitutional.
- Given the proportionality requirements that had to be completed in order to limit the right to privacy, linking Aadhaar and voter IDs may also infringe citizens' basic rights.
- Not necessary—only adult citizens who reside in India are eligible to vote, but Aadhaar is intended to be provided to residents.
- Linking Aadhaar is useless because voters can register using documents attesting to their age and present address.
- A recent study by the comptroller and auditor general noted that about 5 lakh Aadhaar cards were removed for being duplicates, which has led to an increase in fraud instances.
- **Voter profiling:** By connecting Aadhaar to voter IDs, organisations may abuse their access to create voter profiles based on collected data, which may then be used to drive more focused campaigning.
- **Security issues** – This potential is also made more likely by the lack of a data

protection regulation.

- Issues with data quality: Linking Aadhaar might compromise the integrity of the voter ID database.
- Data from the Internet Freedom Foundation demonstrate that the Aadhaar database has more self-reported mistakes than the electoral database does.
- Disenfranchisement: After voter IDs in Telangana and Andhra Pradesh were linked to Aadhaar numbers, nearly 55 lakh voters had their names removed from the voter list.
- According to Article 326 of the Constitution, the right to vote cannot be curtailed unless in cases of ineligibility, insanity, crime, or corrupt or illegal activity.
- Utilizing data for elections will be made simpler for political parties in power by online trends on election day and voter microtargeting using their data.

Vivek Raj

Flood Forecasting and Early Warning System

Flood Forecasting and Early Warning System

Forecasting system is essential to predict the likely increase in water level in rivers.

Central Water Commission (CWC) provides statistical methodology (gauge to gauge correlation) based short range flood forecast. Presently, flood forecasts are issued by CWC at 332 stations (133 Inflow Forecast Stations and 199 Level Forecast Stations). Annually, about 10,000 flood forecasts are issued by CWC.

CWC is currently providing a near real time five-day advisory flood forecast on its web portal <https://aff.india-water.gov.in/> for 20 major river basins of the country. The five day advance forecast is generated using various available rainfall data products like forecast rainfall data GFS (Global Forecast System) and WRF (Weather Research and Forecasting) provided by IMD (Indian Meteorological Department), rainfall estimates namely GsMaP (Global Satellite Mapping of Precipitation) & GPM (Global Precipitation Measurement), as a major input into the model system.

The system is developed in-house using modeling software for flood forecasting

which is updated every three hours for all the stations simultaneously in automatic mode during monsoon season.

CWC has also taken up the work of development of near real time Inundation Forecast for Ganga Basin through consultancy under National Hydrology Project (NHP) using High Resolution Digital Elevation Model (DEM) received from NRSC/ Survey of India / State Govt.

The data collected from field stations is transmitted from the site to the concerned Flood Forecasting Center of CWC through wireless and/or telephone/mobile and satellite based telemetry system & VSAT. The Central Water Commission maintains Wireless Stations for near real-time data communication.

These wireless sets work on pre-fixed schedules for receiving the vital hydro-meteorological data immediately after its observation. Now under the modernization program, a satellite based Telemetry System has been installed at various stations for sensor based automatic data collection and satellite based communication.

The data is transmitted to the Earth Receiving Station through Satellite and then to various Modeling Centers through VSAT Systems. The nodal officer of the dam/reservoir shares reservoir related data with CWC through uploading on Water Information Management System (WIMS) or sending through email/SMS/Phone/Wireless etc.

Dissemination of flood forecasts has also been modernized by having a dedicated website <https://ffs.india-water.gov.in>. In addition, telephone/mobile phone, fax and internet are used for dissemination of flood forecasts to user agencies. Daily Flood Situation Reports cum Advisories are shared with all stakeholders as well as the general public using social media platforms.

This information was given by the Minister of State for Jal Shakti, Shri Bishweswar Tudu in a written reply in Rajya Sabha.

This tool is designed to provide a practical, step-by-step guide to developing and operating the total flood warning system to agencies responsible for creating and communicating flood warnings. It covers predicting flood levels and the likely impacts of a flood, designing and disseminating warning messages, as well as the means of reviewing the system's effectiveness following an event.

It has been prepared to guide flood managers and can be used before, during and after emergencies. It is intended to help decision-makers establish an effective overview of the situation and find answers to their questions quickly. Many countries have already begun to incorporate flood forecasting and early warning in local and national emergency planning systems, and this tool is meant to provide

information on developing flood forecasting and early warning schemes to help with this.

In particular, the tool aims to: (i) provide basic information about flood forecasting and early warning, focusing specifically on riverine floods; (ii) identify flood forecasting and early warning components necessary to address flood risks; (iii) provide perspectives on flood forecasting and early warning strategies that are important for planning flood management activities; and (iv) provide guidance for involving local communities and individuals in flood forecasting and early warning.

Current Issue: As the 2022 monsoon season spreads across India, triggering devastating floods in Assam and other parts of northeast India, and with climate change exacerbating extreme weather events, we take stock of India's early warning systems in preventing loss of lives, property, crops and infrastructure.

The Indian government says it has modern, sophisticated early warning systems for floods and cyclones. But the lack of impact-based forecasts that identify risks, poor dissemination of information to people, lack of scientific data on the effectiveness of warning systems and lack of localized action plans to follow warnings, are some issues that plague India's Early Warning Systems (EWS), we found.

India experienced two of the world's 10 most financially devastating climate events in 2021.

Both events, Cyclone Tauktae and Cyclone Yaas, caused financial losses worth more than \$1 billion each, apart from the loss of lives.

Between 2010 and 2021, the number of people dying due to cyclonic storms has increased, and floods and heavy rains have killed around 1,000 every year from 2013 onwards.

We wrote to the Ministry of Earth Sciences (MoES) for the reasons behind this increase in mortality, especially with early warning systems. The story will be updated when they respond.

Why early flood warning systems do not work

Floods can be riverine, such as the ones seen frequently in Assam or Bihar, or they can be urban floods largely caused by extremely heavy rainfall coupled with poor stormwater drainage systems. In India, heavy rainfall that causes urban floods is monitored by the India Meteorological Department (IMD), while rising water levels in rivers are monitored by the Central Water Commission (CWC).

Presently, they are operated 1,600 hydro meteorological sites by the CWC across the country, covering 20 river basins. Many of these stations are used as flood

monitoring stations for formulating flood forecasts.

Flood forecasting comprises level forecasting and inflow forecasting. Level forecasts help the disaster management agencies in deciding mitigating measures like evacuation, shifting people and their movable property to safer locations. Inflow forecasting is used by various dam authorities to optimize the operation of reservoirs and ensure safe passage of floodwaters downstream. It also helps ensure adequate storage in the reservoirs for meeting the demand of water during the non-monsoon period.

Flood forecasts are issued by CWC at 325 stations (132 Inflow Forecast Stations + 199 Level Forecast Stations), as per a standard operating procedure, and it annually issues over 10,000 flood forecasts. CWC has tied up with Google for dissemination of alerts regarding inundation.

For urban floods, among other things, IMD has a doppler weather radar network of 33 stations to support monitoring and forecast of severe weather, such as thunderstorms and cyclones.

The IMD also operates Flood Meteorological Offices(FMOs) at 14 locations (Agra, Ahmedabad, Asansol, Bhubaneshwar, Bengaluru, Chennai, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar and Thiruvananthapuram).

But flash floods also pose a challenge to planning agencies, as they cause widespread destruction in a short span. A 2021 NITI Aayog report recommended a “focus on scientific research in development of a model-based system to forecast flash flood (sic) with sufficient lead time”.

Puneet Bhatia

COMPETITION AMENDMENT BILL 2022

Why in the news?

The Competition (Amendment) Bill, 2022 was introduced in Lok Sabha on August 5, 2022. It seeks to amend the Competition Act, 2002. The bill has currently been referred to the standing committee for further discussion and analysis.

Difference between the Competition Act 2002 and Competition Amendment Bill 2022

ASPECT	COMPETITION Act 2002	COMPETITION AMMENDMENT BILL 2022
Regulation of combinations based on transaction value	<p>The Act prohibits any person or enterprise from entering into a combination which may cause an appreciable adverse effect on competition. Combinations imply mergers, acquisitions, or amalgamation of enterprises. The prohibition applies to transactions where parties involved have:</p> <p>(i) cumulative assets of more than Rs 1,000 crore, or</p> <p>(ii) cumulative turnover of more than Rs 3,000 crore, subject to certain other conditions</p>	<p>The Bill expands the definition of combinations to include transactions with a value above Rs 2,000 crore.</p>
Definition of control for classification of combination:	<p>For classification of combinations, the Act defines control as control over the affairs or management by one or more enterprises over another enterprise or group</p>	<p>The Bill modifies the definition of control as the ability to exercise material influence over the management, affairs, or strategic commercial decisions.</p>
Time limit for approval of combinations	<p>The Act specifies that any combination shall not come into effect until the CCI has passed an order or 210 days have passed from the day when an application for approval was filed, whichever is earlier.</p>	<p>The Bill reduces the time limit in the latter case to 150 days.</p>

<p>Anti-competitive agreements</p>	<p>Under the Act, anti-competitive agreements include any agreement related to production, supply, storage, or control of goods or services, which can cause an appreciable adverse effect on competition in India. Any agreement between enterprises or persons, engaged in identical or similar businesses, will have such adverse effect on competition if it meets certain criteria. These include:</p> <ul style="list-style-type: none"> (i) directly or indirectly determining purchase or sale prices, (ii) controlling production, supply, markets, or provision of services, or (iii) directly or indirectly leading to collusive bidding. 	<p>The Bill adds that enterprises or persons not engaged in identical or similar businesses shall be presumed to be part of such agreements, if they actively participate in the furtherance of such agreements.</p>
<p>Settlement and Commitment in anti-competitive proceedings:</p>	<p>Under the Act, CCI may initiate proceedings against enterprises on grounds of:</p> <ul style="list-style-type: none"> (i) entering into anticompetitive agreements, or (ii) abuse of dominant position. Abuse of dominant position includes: discriminatory conditions in the purchase or sale of goods or services restricting production of goods or services, or indulging in practices leading to the denial of market access. 	<p>The Bill permits CCI to close inquiry proceedings if the enterprise offers:</p> <ul style="list-style-type: none"> (i) settlement (may involve payment), or (ii) commitments (may be structural or behavioural in nature). The manner and implementation of settlement and commitment may be specified by CCI through regulations.

Relevant product market	The Act defines relevant product market as products and services which are considered substitutable by the consumer.	The Bill widens this to include the production or supply of products and services considered substitutable by the suppliers.
Appointment of Director General	The Act empowers the central government to appoint a Director General to CCI. The Director General assists in conducting inquiries into contraventions of any provisions of the Act.	The Bill amends this to empower the CCI to appoint the Director General, with prior approval of the government.
Qualification of members of CCI	As per the Act, the chairperson and members of CCI should have professional experience of at least 15 years in fields such as: (i) economics (ii) competition matters (iii) Law (iv) management (v) business.	The Bill expands this to include experience in the field of technology.
Decriminalisation of certain offences	Act has several criminal provisions for the violation.	The Bill changes the nature of punishment for certain offences from imposition of fine to penalty. These offences include failure to comply with orders of CCI and directions of Director General with regard to anti-competitive agreements and abuse of dominant position.

Way forward

The bill is currently at a very nascent stage. Further amendments will have to be based keeping in mind the the administrative fluidity and corporate autonomy.

References:

PRS India

Samarth Singh

Aircraft carrier: INS Vikrant

Context :

The carrier is set to be commissioned on September 2 in the presence of Prime Minister Narendra Modi.

About the aircraft carrier Vikrant



- INS Vikrant is India's first Indigenous aircraft carrier (IAC-1), a part of **Atmanirbhar Bharat**, It is a shining example in the nation's quest for 'Atma Nirbhar Bharat' and 'Make in India Initiative,' with more than 76 percent indigenous content.”.
- INS Vikrant was named after the warship that played a crucial role in the 1971 war.
- It is designed: By the Indian Navy's Directorate of Naval Design (DND), the carrier was built at Cochin Shipyard Limited, a public sector shipyard under the Ministry of Shipping.
- Vikrant will be the fourth aircraft carrier to be operated by the Indian Navy – the first Vikrant (British origin) from 1961 to 1997.
- INS Viraat (British origin) from 1987 to 2016 and INS Vikramaditya (Russian origin) from 2013 onwards.

- It is the largest and most complex warship ever to be designed and built in India.

What are the features of INS Vikrant?

- It has expected to have a top speed of around 28 knots and a cruising speed of 18 knots with an endurance of about 7,500 nautical miles.
- The ship can accommodate an assortment of fixed-wing and rotary aircraft.
- It has over 2,300 compartments, designed for a crew of around 1,700 people, including specialised cabins to accommodate women officers.
- The ship includes Barak LR SAM and AK-630, while it has MFSTAR and RAN-40L 3D radars as sensors. The vessel has a Shakti EW (Electronic Warfare) Suite.

How it will help?

- INS-Vikrant will inflate peace, security and stability in the Indian Ocean and Indo-Pacific Region.
- The combat capability, reach and versatility of the aircraft carrier will add formidable capabilities in the defence of the country and help secure India's interests in the maritime domain.
- It would offer an incomparable military instrument with its ability to project air power over long distances, including air interdiction, anti-surface warfare, offensive and defensive counter-air, airborne anti-submarine warfare and airborne

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De-Silting of Rivers

De-Silting of Rivers

Why in News: Inland Waterways Authority of India (IWAI), on the basis of analysis of 25 years of data of river Yamuna has informed that, in general, there has been bed level changes in deep channels in the range of 1 to 2 meter which include erosion as well as deposition.

Major changes in bed profile have been observed in the years of high floods. Based on a Detailed Project Report completed in January 2020, IWAI has assessed the minimum depth of river Yamuna from Jagatpur in Delhi to the confluence of the

Ganga and Yamuna rivers at Sangam, Prayagraj (1,089 km)

Erosion and deposition of silt is a natural process in alluvial rivers. Rivers pickup, carry and drop silt load as per their regime conditions i.e. discharge in the river slope, morphology, nature of silt etc.

The issue of desilting of rivers has been considered by the Government since long and in this context a multi-disciplinary **Committee headed by former Chairman, Central Water Commission in 2002 (Mittal Committee) had studied the siltation pattern in few rivers in India.**

The Committee has opined that large scale desilting of rivers, in general, is not feasible technically due to several reasons like non-sustainability, non-availability of vast land required for the disposal of dredged material etc.

Desilting of rivers in vulnerable reaches may be undertaken based on model study, if it is found techno-economically viable. Cost effective measures for removal of drainage congestion in specific reaches of rivers for channel capacity improvement and navigation purposes are formulated and implemented by concerned States/ agencies as per requirement. The Union Government renders assistance to States which is technical, advisory, catalytic and promotional in nature.

The Ministry of Environment, Forest and Climate Change has issued Sustainable Sand Mining Guidelines, 2016 and Enforcement & Monitoring Guidelines for Sand Mining, 2020 for matters related to sand mining.

This information was given by the Minister of State for Jal Shakti, Shri Bishweswar Tudu in a written reply in Rajya Sabha.

Guidelines for works on De-siltation of river Ganga

- **An Expert Committee (Chair: Dr. M.A. Chitale) submitted its report on 'Preparation of Guidelines for Works on De-siltation from Bhimgauda (Uttarakhand) to Farakka (West Bengal) of river Ganga' to the Ministry of Water Resources, River Development and Ganga Rejuvenation in May 2017.**
- The terms of reference of the Committee included: (i) establishing the need for desilting for ecology and flow of river Ganga, and (ii) forming guidelines for works on de-siltation of river Ganga. Key observations and recommendations of the Committee include:
- De-siltation and ecology: The Committee noted that siltation is a natural phenomenon in rivers. However, factors such as heavy rainfall, deforestation, structural interventions and enclosure of water in reservoirs increases the rate

of siltation in rivers. Siltation results in the reduction in the carrying capacity of rivers and results in floods and loss of created useful storage. Desilting is the removal of fine silt and sediment that has collected in a river in order to restore its natural capacity, without widening or deepening of the river. De-siltation works have the potential to improve the hydraulic performance of a river. However, indiscriminate desilting can cause adverse impacts on a river's ecology and flow.

- Principles for de-siltation works: The Committee proposed basic principles for planning and execution of de-siltation works in rivers. These include:
- Catchment area treatment and watershed development activities, along with suitable agricultural practices and river bank protection/anti-erosion activities are necessary to reduce silt inflow into the river system and must be undertaken in a comprehensive manner;
- Erosion, movement and deposition of sediment in a river occur naturally. Arrangements should be made to pass the incoming sediment into a river to downstream of the dams/ barrage structures to maintain the sediment equilibrium;
- Dredging (desilting) should generally be avoided. The de-siltation quantity should not exceed the deposition rate, i.e., the amount of boulders, pebbles, and sand deposited in river bed minus the amount transported downstream each year;
- Rivers should be provided with sufficient corridor for meandering without any hindrance to their flow; and
- Precautions must be taken to avoid deposition of sediment loads within the river, and instead they should be deposited on other suitable land.
- Guidelines for de-siltation works: For better assessment and management of de-siltation works, the Committee recommended some measures that should be undertaken:
- Sediment transport (sediment transported through the basin of the river) processes must be studied along with establishing annual sediment budgets to guide desilting activities; and
- A technical institute must be entrusted to prepare the sediment budget, and flood routing studies to substantiate the necessity of undertaking desilting activities.
- De-siltation works in river Ganga: With regard to river Ganga, some of the guide-

lines suggested by the Committee include:

- The river should be provided with sufficient area for flood plain and lakes along it to moderate the flood level. Any encroachment of flood plain, and reclamation of lakes should be avoided. Instead, adjoining lakes should be desilted to increase their storage capacities.
- In cases when constriction works (e.g., barrages/bridges) cause large scale siltation, de-siltation along a pre-selected channel can be undertaken to deepen the river flow, thus guiding its main course of flow. The dredged material can be dumped along an alternate channel.

What is De-siltation?

- Silts are earthy matter, fine sand, or the like carried by moving or running water and deposited as a sediment, removal of such silts for the proper flow of river is known as desilting.
- The basic reasons given for the necessity of desilting are **increasing the storage capacity and checking eutrophic conditions.**
- What is done in the name of desilting is practically digging or excavation of lake bed.
- Increasing storage capacity by digging lake bed is the most costly proposal when compared to other alternatives.
- Desilting, if not done in a planned way, **creates isolated pits of considerable size** in the submergence area which may have lower bottom levels than the main storage.
- Thus, desilting said to be carried out for increasing storage capacity, practically reduces the actual utilizable storage in most of the cases.

What are the key findings of the report?

- The committee in its report says erosion, sediment transport and siltation are very complex phenomena.
- It is **impossible to apply a one-size-fits-all approach** to sediment management and control, because the issues involved are frequently very regionally-specific.
- Local factors such as topography, river control structures, soil and water conservation measures, tree cover, and riparian land-use or land disturbance can have a large impact on sediment loads in rivers.

- River control structures (such as reservoirs), soil conservation measures and sediment control programmes can cause downstream sediment loads to decrease, while factors such as land disturbance or agricultural practices can cause increased sediment loads.

Puneet Bhatia

LUMPY SKIN DISEASE



WHY IN THE NEWS?

There has been a recent spread of the infectious Lumpy Skin Disease among the cattle which is spreading to a more wider areas with several regions getting affected by it. It has already taken the lives of around 5000 cattle's in the last one month.

What is Lumpy Skin Disease?

1. Lumpy Skin disease is a viral disease of domestic cattle, water buffalo and certain wild ruminants.
2. Incubation of LSD period is around 28 days but experimentally affected cattle may develop clinical signs in 6 to 9 days.
3. It heavily impacts animal health and welfare and can lead to severe economic losses to the farmers in affected farms.

WHAT COULD BE THE SOURCES OF TRANSMISSION

- Lumpy skin disease is primarily spread between animals by biting insects (vectors) such as biting flies and mosquitoes.

SYMPTOMS OF LUMPY SKIN DISEASE

- The animal stops eating and faces several problems while eating or chewing which results in reduced milk production.
- It primarily consists of fever, fluid excretion from eyes and nose, dribbling of saliva from the mouth and blisters on the body.

CAUSES OF LUMPY SKIN DISEASE:

1. LSD is caused by infection of the water buffalo or cattle with the poxvirus Lumpy Skin Disease Virus (LSDV).
2. Lumpy skin disease was first seen as an epidemic in Zambia in 1929.
3. According to the FAO the mortality rate is less than 10%.

WHAT ARE THE PREVENTIVE AND TREATMENT MEASURES

1. Vaccination of the Lumpy Skin Disease is covered under the Livestock Health and Disease Control Programme of India.
2. Vaccination could be done through the indigenous vaccines like Lumpi-ProVaxInd.
3. Anti-inflammatory painkillers can also be used in order to keep the appetite of the affected animal high.
4. The supportive care of the cattle is needed because there are no anti-viral drugs which are available.
5. This can include treatment of skin lesions using wound care sprays and the use of antibiotics to prevent secondary skin infections and pneumonia.

Samarth Singh