

11 Aug 2019: Comprehensive News Analysis

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A. GS 1 Related

Category: GEOGRAPHY

1. Amount of Irrigation Linked to the Shifting of Rainfall to North Western India

Context:

Researchers from the Indian Institute of Technology (IIT) Bombay have found that even a change in irrigation policy has the potential to shift monsoon rainfall and intensify extreme rainfall in India through its feedback to atmosphere.

Details:

- Several studies have already shown that irrigation contributes moisture to the Indian summer monsoon.
- But the IIT Bombay team along with researchers from Pacific Northwest National Laboratory and Oak Ridge National Laboratory have shown that whenever there is a change in the irrigation management, there is a change in the moisture feedback to the atmosphere.
- The researchers considered three scenarios:
 - No irrigation
 - Irrigation that is based on soil moisture deficit
 - Uncontrolled irrigation as seen in India.
- The study has not looked at how irrigation and agriculture influence monsoon in southern India.

Land-surface model:

- The researchers developed a module of land-surface model that takes into account the actual soil irrigation and agriculture pattern seen in India.
- During the month of September, agriculture lands are highly irrigated and the crops are matured.
- As a result, there is maximum evapotranspiration taking place leading to highest contribution of moisture from the land to the atmosphere.
- Land-surface processes including irrigation affect the heat fluxes, temperature related and evapotranspiration.
- Modified heat fluxes along with changes in atmosphere moisture content and distribution result in a shift in rainfall towards north western part of the country and increased extreme rainfall over central India during September.

Earlier Model:

- Till now, the models that have been used widely for land-surface modelling were not designed for Indian conditions.
- The models used so far considered that irrigation starts only when soil moisture is very low (permanent wilting point) and stops when it reaches slightly below saturated soil moisture state (field capacity).
- But, amount and mode of irrigation in India is uncontrolled.
- Nearly 50% of crop area is covered by paddy where the fields are kept in submerged conditions.
- As a result, the contribution of moisture from the land to the atmosphere is very different from what is followed in the West, which is what the models used so far took into account.

Monsoon shift:

- The researchers found that as a result of excess irrigation over northern India, the summer monsoon rainfall in September shifts towards the north western part of the country.
- There is also intensification of extreme rainfall over central India during September.

Conclusion:

Any land-surface model used for India should take into account Indian irrigation and agriculture system. Otherwise, we will not add value and will come up with incorrect results.

B. GS 2 Related

1. UP, Delhi and Rajasthan among worst performers in breastfeeding

Context:

According to a report-card released recently by the Union Health Ministry, Uttar Pradesh, Delhi, Rajasthan, Uttarakhand and Punjab fare the worst when it comes to the practice of breastfeeding.

Background:

- The World Health Organisation says that if breastfeeding was scaled up to near-universal levels, lives of about 8 lakh children could be saved every year.
- Globally, only 40% infants are exclusively breastfed for the first six months.
- While breastfeeding is a natural act, it is also a learned behaviour, according to WHO.

Details:

- The report notes that these states have the lowest rate for breastfeeding within one hour of birth, exclusive breast feeding for six months and complementary breastfeeding from six to nine months.
- States that top the report card include Mizoram, Sikkim, Odisha and Manipur.
- These regions also show good indicators in terms of the other parameters where children are breast fed exclusively for six months etc.

Advantages of Breastfeeding:

- Breastfeeding contributes to:
 - The health and well-being of mothers.
 - The spacing of children.
 - The reducing the risk of ovarian cancer and breast cancer.
 - The growth of family and national resources
- Breastfeeding is one of the most cost-effective intervention which addresses both survival and growth of the child.
- Early initiation of breastfeeding within an hour of birth can prevent neonatal mortality.
- Exclusive breastfeeding for six months can reduce under-five deaths significantly.

Conclusion:

- Counselling and practical support to women, both during the time of birth and later, and linking them to community workers are key to promoting breastfeeding.

C. GS 3 Related

1. State-Run Oil Marketing Companies to Buy Biodiesel Made From Used Cooking Oil.

Context:

Petroleum and Natural Gas Minister announced that the state-run oil marketing companies would procure the entire supply of biodiesel produced from used cooking oil for a three-year period.

Background:

- The announcement was made on World Biofuel Day.
- Karnataka is the first State to have a Bio Energy Development Board and used cooking oil is being collected from big chain of restaurants by bio diesel manufacturing units.

FSSAI Directive:

- The announcement comes just a day after the Food Safety and Standards Authority of India's (FSSAI) has directed Food Safety Commissioners to ensure that Food Business Operators (FBOs), whose consumption of edible oils for frying is more than 50 litres per day, to stop reusing the oil more than three times.
- After extending the deadline twice for FBOs, FSSAI has directed Food Safety Commissioners to conduct inspections and ensure that the oil does not enter the food chain again.
- The order says all FBOs should compulsorily dispose their used cooking oil to authorised collection agencies or aggregators.
- FSSAI will soon come out with a mobile application for tracking and tracing used cooking oil.
- FSSAI will also ask cooking oil manufacturers to come out with colour charts that will help people to identify if the oil is fresh or re-used.
- The agency also invited bio diesel manufacturers to enrol for collection of used cooking oil from FBOs.

Details:

- Biodiesel plants using 'used cooking oil' as their raw material will be assured that their entire production will be procured by the oil marketing companies to be blended with normal diesel.
- The scheme is being launched in 100 cities across the country.
- A 'Repurpose Used Cooking Oil (RUCO)' sticker and a phone app were also launched to enable the collection of used cooking oil.

Advantages:

- The directive is aimed at ensuring that reused cooking oil is neither directly used in food preparation nor re-enters the food chain.
- Under the scheme, the OMCs will pay biodiesel producers ₹51 per litre in the first year, ₹52.7 per litre in the second, and ₹54.5 per litre in the third year.
- The oil companies will also bear the cost of transportation and GST for the first year.
- Restaurants and hotels interested in supplying used cooking oil can affix the sticker to show availability.

Other Initiatives:

- The National Policy on Biofuels 2018, released by the Ministry of New and Renewable Energy has set a blending target of 20% for ethanol in petrol and of 5% for biodiesel blending in diesel by 2030.

- The Ministry is working on a four-pronged strategy by promoting ethanol, second-generation ethanol, compressed biogas and biodiesel.
- Ethanol blending in petrol has gone up from 1.5% to about 8% and is likely to touch 10% soon.
- The government is planning to allow production of ethanol from surplus food grains which now sometimes go waste and also entail expenditure on storage.

Challenges:

- When used multiple times, cooking oil becomes acidic and darkens in colour. This may alter the fatty acid composition of the oil.
- There is the absence of a strong ecosystem that can facilitate the registration of biodiesel manufacturers and collection aggregators.
- The registration of manufacturing units and empanelment of re-purposed used cooking oil (RUCO) collecting aggregators is a difficult process.
- Without empanelment, many aggregators are finding it difficult to collect used cooking oil from hotel chains.

Conclusion:

- The Ministry of Petroleum and Natural Gas plans to bring down import dependency of oil products by 2022. This can be achieved by enhancing production, improving energy efficiency, promoting conservation and encouraging alternate fuels.

2. Mapping of Soil Worms

Context:

A team of over 50 researchers collected over 6,500 soil samples from all seven continents of the world and found that there are about 57 billion nematodes for every human being on Earth.

Soil Worms:

- Soil worms (nematodes) are roundworms and their size can vary from a tiny 0.2 millimetre to a few metres.
- There are 57 billion nematodes for every human being on Earth.
- Their total biomass comes to around 300 million tonnes which is about 80% of the combined weight of Earth's humans.

Details of the Mapping:

- The study was done only on the top 15 cm of soil.
- At 38% of the total, sub-Arctic regions have the highest abundance of nematodes.
- Soil organic matter content is the key driver for nematode abundance.
- The low temperature and high moisture in the sub-Arctic regions reduce the decomposition rate of organic matter.
- This leads to accumulation of organic matter and the nematodes happily thrive on them
- The temperate region has the next highest abundance followed by the tropical regions.

Soil Worms in Indian soils:

- Soils from Western and Eastern Ghats of India and the Himalayas were used for the study.
- Many nematicides (a substance used to kill nematode worms) have been indiscriminately used in our agricultural fields, posing a major threat to their survival.
- Biological control methods can be used to save these important organisms.

Ecological Importance of Soil Worms:

- Nematodes play a crucial role in the environment as they are responsible for production of about 19% of ammonia of the soil.
- They are also important bio indicators of soil ecosystem health.
- Nematodes are responsible for around 2.2% of the total carbon emission from soils.
- Predicting climate change requires that we understand global carbon and nutrient cycles.
- Improving our understanding of these organisms at a global level is critical if we are going to understand and address climate change.

3. Tackling poachers across borders

Context:

DNA forensics is being used by India and Nepal to analyse wildlife crimes.

Background:

- In July last year, officials of the Directorate of Revenue Intelligence (DRI) seized six pieces of ivory weighing nine kg at Siliguri in West Bengal's Darjeeling district.
- The ivory was suspected to have been sourced from an elephant killed in the Budhbare area of Nepal's Jhapa district a few weeks earlier.
- Over the past few years, several kilos of ivory have been seized by different agencies, including the DRI and the Wildlife Crime Control Bureau in north Bengal.
- The region falls under the 'Kanchenjunga landscape', an area shared by India, Nepal and Bhutan.

Coordinated Effort:

- It is important to estimate the population size, demographic history and gene flow between elephant populations in the Kanchenjunga landscape for better management of the species and combating wildlife trade.
- DNA forensics helps in resolving several cases of wildlife crimes.
- In Nepal, there had been at least two killings where poaching for ivory could be suspected.
- Elephants from India often migrate to southern and eastern region of Nepal.

Conclusion:

- There is a need to compile a genetic database of elephants in the landscape.

Category: SCIENCE AND TECHNOLOGY

1. Iron Ion Battery

Context:

For the first time, Indian Institute of Technology (IIT) Madras has fabricated a rechargeable iron ion battery using mild steel as the anode.

Background:

- With no lithium reserves in India and shortage of lithium reserves in the world, the stress is on developing rechargeable batteries of comparable performance using materials other than lithium.
- Iron has favourable physico-chemical properties like lithium.
- The redox potential of iron ion is higher than lithium ion and the radius of the Fe^{2+} ion is nearly the same as that of the lithium ion

Features:

- While lithium ions are the charge carriers in lithium ion battery, the Fe^{2+} ions perform that function in the case of iron ion battery.
- The performance of an iron ion battery can go up to 150 cycles of charging and discharging.
- In the iron ion battery, Vanadium Pentoxide is used as the cathode and iron perchlorate is used as the electrolyte.
- With 54% capacity retention at the end of 50 cycles of charging and discharging, the battery display good stability.
- It is possible to fabricate the battery under ambient conditions too.

Benefits:

- The iron ion battery is cost-effective and can store a high amount of energy.
- With the world turning its attention to electric vehicles, the focus is on developing batteries that are cheaper.
- Iron is more stable during the charging process and therefore prevents short-circuiting of the batteries.

Challenges:

- The amount of energy that can be drawn from the iron ion battery is 220 Wh per kg, which is 55-60% of lithium ion battery's performance.

2. Low-cost Handheld Device to Help Detect Bacteria

Context:

Researchers at the Indian Institute of Technology Guwahati (IIT-G) have developed a low-cost handheld biocompatible sensor that can detect bacteria almost instantaneously.

Background:

- Bacterial infection is a common cause of morbidity and mortality worldwide and despite the development of a range of antibiotics.
- The challenge continues to lie in detecting and diagnosing bacterial infection at an early stage.

- At present, the detection of bacteria in body fluids is done in laboratories.
- The cells that are derived from the patient are initially cultured or grown so that enough of the bacterial cells are available for microbiological analysis.

Significance of the Invention:

- It can detect bacteria without cell culture and microbiological assays.
- Rapid detection of bacteria is important not only in healthcare but also in anti-bioterrorism measures and environmental monitoring applications.
- The new device does not require cell culture and microbiological analyses.
- It is possible to distinguish between gram-positive and gram-negative bacteria almost immediately.

Category: INTERNAL SECURITY

1. Peace deal inked with last NLFT faction

Context:

- Four years after the initiation of dialogue, the Union Government signed a Memorandum of Settlement with the last remaining faction of the National Liberation Front of Tripura (NLFT).

Background:

- In 2015, the Centre's interlocutors had first arranged a tripartite meeting involving representatives from Delhi, the State government and NLFT at Shillong.
- The government of Meghalaya had facilitated the venue and logistics of the initial meeting.
- Though there were few talks since then, the peace process gained momentum in recent months only.

Details:

- Under the terms of the agreement, 88 cadres of the outlawed group are expected to surrender.
- They will receive benefits of the surrender-cum-rehabilitation scheme announced last year.
- The agreement marks the surrender of the fourth faction of the NLFT.

National Liberation Front of Tripura (NLFT):

- The NLFT was formed in 1989 to wage an armed insurgency demanding a separate tribal homeland.
- NLFT members are concentrated in Dhalai district, along the border with Bangladesh.

Category: ECONOMY

1. Certification of seeds to be made mandatory to step up farm output

Context:

The Union Government plans to mandate uniform certification of seed by amending the Seeds Act, 1966.

Background:

- More than half of all seeds sold in India are not certified by any proper testing agency.
- Currently, about 30% of seeds are saved from his crop itself.
- 45% come through the Indian Council of Agricultural Research (ICAR) system and have gone through the mandated certification process.
- The remaining is sold by private companies, most of which are not certified, but rather called as 'truthful label seeds'.

Details:

- Barcoding of seeds will also be made mandatory.
- The Centre also hopes to roll out a software to barcode seeds in order to ensure transparency and traceability.
- The National Informatics Centre has been collaborating with the Agriculture Ministry for the project.
- Planting materials such as cuttings, grafting and tissue culture, etc. also will be brought under the ambit of the law.
- The new act aims to regulate the quality of all seeds sold in the country, as well as exported and imported seeds.
- The new Bill will also increase penalties for non-compliance.

Advantages of the Move:

- The main aim is to bring uniformity to the process of quality regulation.
- Weeding out of poor quality seeds could increase productivity by 20 to 25%.
- Barcoding of seeds will ensure their traceability.
- It will hold the companies accountable for the quality of the seeds they sell.
- The software system will be able to track seeds through the testing, certification and manufacturing process.
- By connecting to a dealer licensing system, seeds will be tracked through the distribution process as well.

Challenges:

- Private seed companies fear whether the new mechanism will assure them that data on their seeds is not shared with their competitors
- There is little progress in the regime since the revised seeds legislation was originally proposed in 2004.

2. Draft Policy on Logistics Ignores Express Industry

Context:

The draft National Logistics Policy, released by the government earlier this year, has allegedly ignored the role of the express industry (courier and parcel) and air cargo sectors.

Draft National Logistics Policy:

- The government had issued the draft national logistics policy with a target to bring down logistics costs from 13-14% of GDP to 10% "in line with best-in-class global standards."

- The policy also seeks to optimise the current multimodal mix, where road has a share of 60%, while railways account for 31% and waterways 9%, to bring the sector on par with international benchmarks.
- The international benchmarks are 25-30% share of road, 50-55% share of railways, and 20-25% share of waterways.

What are the Concerns?

- The policy document does not focus on the express industry and air cargo sectors, which are integral parts of the logistics network.
- The air express has also been overlooked in the multimodal mix even though air is an essential segment of the movement of goods
- Excise duty and value-added tax, charged by central and State governments on ATF, add another 30-35% to the cost.
- For the air cargo sector, aviation turbine fuel (ATF) is the single largest component of direct operating cost with a share of 40%.
- The GST regime disallows input credit on ATF, increasing the tax burden on express cargo airlines further.

Solutions:

- The government should permit express cargo airlines to avail input credit of excise duty as was done before the GST regime.
- ATF should be brought under GST and input credit on GST paid on ATF should be made available to express cargo airlines.

Conclusion:

- In developing countries such as India, an efficient air express infrastructure could contribute directly to global competitiveness of the country by ensuring just-in-time deliveries and reducing clearance dwell time.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: POLITY

1. Asymmetric Federalism

Context:

A number of provision in the Constitution testifies that the Indian version of federalism is an Asymmetric one.

Federalism:

- Nations are described as federal or unitary, depending on the way in which governance is organised.
- **Unitary arrangement:** The Centre has plenary powers of administration and legislation, with its constituent units having little autonomy.
- **Federal arrangement:** The constituent units are identified on the basis of region or ethnicity, and conferred varying forms of autonomy or some level of administrative and legislative powers.

Quasi-Federalism in India:

- The **Supreme Court** has noted that the essence of a 'federation' is the existence of the Union of the States, and the distribution of powers between them.
- In **R. Bommai vs. Union of India**, it notes the commonly invoked model of federalism is the **United States** which is a federation of States:
- In **U.S.A**, the states were independent and sovereign in their territories, and decided to form a federation.
- Their territories cannot be altered by the federal government.
- In **India**, on the other hand, Parliament has the power to:
 - Admit new States.
 - Create new States.
 - Alter their boundaries and their names.
 - Unite or divide the States.
- The **concurrence of States** is not needed for the formation and unmaking of States and Union Territories.

Centre's Overriding Powers:

- Several provisions of the **Constitution** allow the Centre to override the powers of the States.
- In **India**, there are **three lists** based on which the power of legislation is distributed among the centre and the states.
- In the **S.**, the powers of the federal government are outlined and any matter not mentioned in it are left as the legislative field for the States.
- In **India**, the residuary powers of legislation, that is the power to make law in a field not specified in the Constitution, is vested in Parliament.
- In the **S.**, residuary powers are with the States.
- In **fiscal matters**, the power of the States to raise their own resources is limited, and there is a good deal of dependency on the Centre for financial assistance.

India and Asymmetric Federalism:

- The main forms of administrative units in India are the Centre and the States.
- But there are other forms set up to address specific local, historical and geographical contexts.
- **Union Territories** with a legislature (Puducherry and Delhi).
- Union Territories without a legislature.
- Even between Puducherry and Delhi, there is a notable difference.
- **Puducherry** has legislative powers on any matter mentioned in the State List or the Concurrent List, insofar as it applies to the Union Territory.
- **Delhi** has three further exceptions: police, land and public order are outside its purview.
- However, Parliament has overriding powers over any law made by the Assembly in the Union Territories.
- Puducherry has one more unique feature. Despite being a single administrative unit, the Union Territory is '**non-contiguous**'.
- That is, its territory is limited to one extent of land.

- Besides Puducherry and its adjoining areas, it has enclaves located within other States: **Karaikal** (within Tamil Nadu), **Yanam** (within Andhra Pradesh) and **Mahe** (within Kerala).

Initial Classification of States:

- When the Constitution came into force, the various States and other administrative units were divided into Parts A, B, C and D.
- **Part A** States were the erstwhile provinces.
- **Part B** consisted of erstwhile princely states and principalities.
- **Part C** areas were the erstwhile 'Chief Commissioner's Provinces'.
- **Part D** consisted on Andaman and Nicobar Islands alone.

Jammu and Kashmir

- The Union government has **recently withdrawn the special status** conferred on Jammu and Kashmir (J&K) under **Article 370** of the Constitution.
- It has also divided the State into two regions and declared them as **Union Territories**.
- Thus, the government has made a **significant alteration** in the unique form of federalism that it has been practising in respect of the sensitive border State.
- Instead, it has put in place an alternative form of federalism in which the two new units will be administered by the Centre.
- The unprecedented act of converting a State into a Union Territory has also been performed.
- Under **Article 370**, the State **was** allowed to have its own Constitution, its own definition of '**permanent residents**', the right to bar outsiders from holding property, and the **privilege** of not having any Indian law automatically applicable to its territory.
- Indian laws had to be specifically permitted by its Assembly before it could operate there.
- It was allowed to have **its own Penal and Criminal Procedure Codes**.
- The President was empowered to notify, from time to time, the provisions of the Constitution that could be extended to the State, with or without modifications.

States with Special Status:

- The 'special provisions' applicable to some other States are mainly in the form of empowering the Governors to discharge some special responsibilities.
- These States are **Maharashtra, Gujarat, Manipur, Nagaland, Sikkim and Arunachal Pradesh**.
- The common feature is that wherever **Governors** have been asked to discharge **special responsibilities**, their **discretionary power** overrides the process of consultation with the respective Council of Ministers.
- **Article 371** says the Governor of **Maharashtra** has a special responsibility to establish separate development boards for **Vidarbha, Marathwada**, and the rest of the State.
- The Governor of **Gujarat** has a similar responsibility towards **Saurashtra, Kutch** and the rest of Gujarat.
- The responsibilities cover equitable allocation of funds for development expenditure, and providing facilities for technical education and vocational training.
- **Article 371A** confers special status on **Nagaland**.
- Under this provision, no law made by Parliament in relation to **Naga customary law and procedure**, including civil and criminal justice matters, and ownership or transfer of land and resources will apply to Nagaland, unless the Legislative Assembly of Nagaland decides so.
- The protection of Naga laws and customs was written into the Constitution following the July 1960 agreement between the Centre and the Naga People's **Convention**, under which the State was later created.
- Further, the Governor of Nagaland has a 'special responsibility' regarding **law and order** in the State.

- **Article 371B** contained a special provision for **Assam** under which a committee of legislators from the tribal areas was formed to look after their interest.
- The **tribal areas** later became **Meghalaya**
- Under **Article 371C**, the Hill Areas of **Manipur** ought to have a committee of legislators.
- The Governor has a special responsibility to make an annual report to the President on the administration of the **Hill Areas**.
- The Centre is empowered to give directions to the State as far as these areas were concerned.
- **Article 371D** is a detailed provision under which the President can pass an order to provide equitable opportunities and facilities to people belonging to different parts of **Andhra Pradesh** in public employment and education.
- In particular, the President can create local cadres in various classes of **employment** and allot civil posts to specified local cadres only.
- The President can specify any part of the State as a '**local area**' for this purpose.
- To give effect to this arrangement, an Administrative Tribunal has been set up.
- No court, other than the Supreme Court, has any power of superintendence over this tribunal.
- **Article 371F** incorporated special provisions after the addition of **Sikkim** to India.
- One major objective was to grant protection to **existing laws in Sikkim** so that they are not declared unconstitutional after being brought under the Constitution of India.
- **Article 371G** contains special provisions to preserve the religious and social practices of Mizos in **Mizoram** and their **customary law** and procedure and administration of criminal and civil justice, besides ownership of land.
- **Article 371H** vests a special responsibility on the Governor of **Arunachal Pradesh** with respect to law and order.
- It makes clear that the Governor shall discharge this function after consulting the Council of Ministers, but exercise his individual judgment as to the action taken.

Other Examples of Decentralisation of Power:

- The **Sixth Schedule** to the Constitution contains provisions for the administration of **tribal areas in Assam, Meghalaya, Tripura and Mizoram**.
- These create autonomous districts and autonomous regions.
- Any **autonomous district** with different Scheduled Tribes will be divided into autonomous regions.
- These will be administered by **District Councils and Regional Councils**.
- These Councils can make laws with respect to **allotment, occupation and use of land, management of forests** other than reserve forests and water courses.
- Besides they can regulate **social customs**, marriage and divorce and property issues.
- In **Assam**, the **Karbi-Anglong** Autonomous Council, **Dima Hasao** Autonomous District Council and the **Bodoland** Territorial Council have been set up under the Sixth Schedule.
- Another six autonomous councils have been formed by Acts of the legislature.
- **Ladakh** has two autonomous hill development councils (**Leh and Kargil**).
- The **Darjeeling** Gorkha Hill Council is in **West Bengal**.

Category: INTERNATIONAL RELATIONS

1. Currency War

Context:

On Monday, the United States designated China as a '**currency manipulator**'.

Background:

- The move came immediately after the **People's Bank of China (PBoC)**, the Chinese central bank, let the Yuan weaken past the dollar mark.
- CNY or the Yuan is the basic unit of the renminbi, China's official currency.
- The Yuan was last at this level against the dollar more than **10 years ago** in April 2008.
- The present devaluation of the currency has gained significance in light of the **ongoing trade war** between the U.S. and China.
- Both countries have slapped **high tariffs on goods** worth billions imported into their countries from the other side.

Reasons behind the Chinese Move:

- Devaluing the currency is a common ploy employed by economies that **face a slowdown** in order to help boost demand for their goods.
- A currency is devalued using the central bank to **increase the supply of the currency in the forex market**.
- This allows more units of the currency to be purchased using fewer units of various other foreign currencies.
- In the case of the Yuan, increasing its supply will allow more units of it to be purchased in exchange for fewer U.S. dollars.
- This is a **way of transferring more of the purchasing power to buy Chinese goods away from the hands of the local Chinese and into the hands of Americans**.
- The Chinese believe this **will help boost the value of China's exports** and also kick-start growth.
- The **Chinese economy** has been witnessing a **general slowdown**, with growth dropping to a **27-year low of 6.2% in July**.

Reasons behind the U.S Move:

- The U.S. believes that China has been deliberately weakening its currency **in order to boost exports to the U.S.**
- The Trump Administration, which has been trying to **discourage the import of Chinese goods** into the U.S. by imposing high tariffs since early last year.
- S thinks that the inflow of Chinese goods will affect the business of **local U.S. manufacturers**.

Agenda of the People's Bank of China (PBoC):

- The PBoC exerts far more direct control over the **exchange rate** of its currency by intervening in the forex market.
- **Other central banks** such as the U.S. Federal Reserve for instance, usually employ general monetary policy tools, which they use to regulate the money supply in the overall economy, to weaken or strengthen the exchange rate of their currencies.
- Many analysts believe that while the PBoC may have intervened in the forex market in the past by deliberately selling Yuan to weaken the currency against the dollar.
- It is no longer the case.
- The PBoC may be selling dollars in the forex market to prop up the value of the Yuan against the dollar as the market tries to push the Yuan down.

Consequences of the U.S Move:

- The tag of a "currency manipulator" that has been slapped on China is **largely symbolic**.
- The tag does **not mean any penal action** against China.

- But it could be used by the United States as an excuse to justify other **retaliatory sanctions** against the country.
- The U.S. could also drag China to the **International Monetary Fund (IMF)** although the IMF does not have the teeth to punish China.
- However, it sends across the signal that **economic ties** between the U.S. and China are set to **worsen further**.

Implications for the Global Economy:

- If the U.S. weakens the dollar to **retaliate against China's Yuan devaluation**, it will enter a currency war.
- The **last time** the world was engaged in an all-out currency war was during the Great **Depression of the 1930s**, when countries facing a domestic slowdown tried to boost their economies by devaluing their currencies in a retaliatory fashion.
- This caused **terrible uncertainty for businesses**.
- Combined with **high tariffs**, this led to a **steep fall in international trade**.
- An **all-out currency war** would have similar effects today.
- Currency devaluation will also not undo any of the negative effects of the high tariffs that have already been slapped by the U.S. and Chinese administrations.
- Tariffs will remain and **discourage production**.
- Currency devaluation may **temporarily boost exports** by transferring more purchasing power to the hands of foreigners.
- But, it will **not boost domestic production**.
- Eventually, such competitive devaluations can cause the **size of global trade to shrink**.

F. Tidbits

1. Positive Engineering

- Rajasthan government has introduced a 'Positive Engineering' formula to save revenue and energy in the water supply infrastructure.
- It will be carried out through technical measures at the pumping stations with a high load factor.
- Energy planning and conservation at the points with the load of more than 200 KVA is set to help reduce the costs significantly.
- The new formula would make use of power factor incentive offered by the distribution companies by rationalising the contract demand with the power consumption

2. Male service personnel to get Child Care Leave

- Defence Minister has approved the extension of benefits of Child Care Leave (CCL) to single male service personnel.
- Certain relaxations of CCL provisions in case of women officers of defence forces were also approved.
- Presently, CCL is granted to women officers in defence forces.
- Single male service personnel and women officers of defence forces will also be able to avail CCL in respect of child with 40% disability without any restriction of age limit of the child.

- The minimum period of CCL that can be availed in each spell has been reduced to five days from the earlier limit of 15 days.
- This is in line with a recent Department of Personnel and Training (DoPT) order extending similar benefits of CCL to civilian employees.
- Recently, the DoPT made certain amendments for grant of CCL to civilian employees, extending the benefit to single male government servants as well.
- Further, the age limit of 22 years prescribed earlier in the case of a child with 40% disability has been removed for the purpose of availing CCL.

3. China continues to build Xinjiang camps

- The camps are built to eliminate what it described as the threat of Islamic radicalism and anti-government sentiment among the overwhelmingly Muslim population of Uighurs in Xinjiang.
- In late July, the government said most detainees had been released from the indoctrination camps.
- But recent reports have found that the vast network of detention camps continues to operate and even expand.
- Evidence has also pointed to a system of forced labour linked to the camps.
- Factories being built nearby provide a place to transfer detainees whom officials consider sufficiently reformed.
- The government's narrative of redemption through state enforced re-education remains the justification for the camps.

To know more about the Xinjiang issue:

<https://byjus.com/free-ias-prep/upsc-exam-comprehensive-news-analysis-jul19-2019/>

G. Prelims Facts

1. Kajin Sara Lake

- The newly-discovered Kajin Sara Lake in Nepal is likely to set a new record of being the world's highest lake.
- The Kajin Sara Lake in Manang district was discovered about a few months ago by a team of mountaineers.
- At present, Tilicho Lake, situated at an altitude of 4,919 metres in the same country is considered the world's highest lake.

2. Water Powered Spacecraft

- NASA successfully tested water powered spacecraft technology.
- Two [cubesats](#) executed the first coordinated manoeuvre using steam power in a low-Earth orbit.
- The propulsive movement happened after one of the twin spacecraft commanded the other to close the gap separating the cubesats.

- Each spacecraft carries fuel tanks filled with water, which thrusters converted to steam to help the cubesats move closer together.
- This steam-powered movement is part of the extended mission for the [Optical Communications and Sensor Demonstration mission](#), which aims to demonstrate how spacecraft can manoeuvre in swarms and while operating in close quarters.

3. Falaq

- Iran unveiled Falaq, a locally upgraded radar system with a range of 400 km (250 miles) that could help defend against cruise and ballistic missiles and drones.
- The Falaq is an improved version of the Gamma, a system that military experts said was of Russian origin.
- The announcement comes at a time of rising tension between Iran and United States.
- Iran shot down a U.S. military surveillance drone in the Gulf with a surface-to-air missile in June.
- Tehran says the drone was over its territory, but Washington says it was in international airspace.

H. UPSC Prelims Practice Questions

Q1. 1. What is the importance of 'Falaq' in international security?

- a) It is a nuclear powered sub marine commissioned by India
- b) It is an anti-satellite system developed by Israel.
- c) It is a locally upgraded radar system developed by Iran.
- d) It is a missile developed by North Korea.

Answer: c

Explanation:

Falaq is a locally upgraded radar system developed by Iran

Q2. With reference to the Food Safety and Standards Authority of India (FSSAI), consider the following statements:

- 1. FSSAI is an autonomous body established under the Ministry of Health & Family Welfare
- 2. The authority consists of a Chairperson and twenty-two members out of which 50% shall be women.
- 3. It has published 'The Pink Book: Your Guide for Safe and Nutritious Food at Home'.

Which of the given statement/s is/are correct?

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

Answer: d

Explanation:

The authority consists of a Chairperson and the following twenty-two members out of which one-third shall be women.

Q3. The Kanchenjunga landscape is shared by which of the following countries?

1. India
2. Nepal
3. Bhutan

Which of the given statement/s is/are correct?

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

Answer: c

Explanation:

The 'Kanchenjunga landscape' is an area shared by India, Nepal and Bhutan.

Q4. Consider the following statements:

1. Soil worms (nematodes) are roundworms and their size can vary from a tiny 0.2 millimetre to a few metres.
2. Nematodes are responsible for around 2.2% of the total carbon emission from soils.

Which of the given statement/s is/are correct?

- a) 1 only is correct
- b) 2 only is correct
- c) Both 1 and 2 are correct
- d) Neither 1 nor 2 is correct

Answer: c

Explanation:

Both the statements are correct.

I. UPSC Mains Practice Questions

1. Coverage of irrigation is an important factor impacting the socio-economic conditions of Indian states. Critically analyse. (250 words, 15 marks)
2. The neighbourhood countries have started to recognize India as a benevolent elder brother rather than an aggressive big brother. Discuss. (250 words, 15 marks)

Read previous [CNA](#).

