

# Forum IAS

## 7 PM COMPILATION

**1st to 15th February, 2021**

### Features of 7 PM compilation

- ❖ Comprehensive coverage of a given current topic
- ❖ Provide you all the information you need to frame a good answer
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## Coup in Myanmar and India-Myanmar bilateral relations – Explained

In a military coup in Myanmar, a state of emergency has been imposed for one year. The coup resulted in establishing military rule again in Myanmar. The military has detained democratically elected leader Aung San Suu Kyi and other politicians of the country. This action is condemned by the majority of countries around the world.

Myanmar's elected democratic government was about to swear in and convened the Parliamentary session on February 1. The coup occurred to stop the convening of Parliamentary session. Also, the Military owned TV (Myawaddy TV) has announced that the Military will remain in power for one year. This event has raised questions on the survival of democracy in Myanmar.

### Reason behind the Coup

Myanmar conducted elections democratically in November 2020. Aung San Suu Kyi led Party won 396 out of 476 seats (combined lower and upper houses of Parliament) and won the elections. The military reserves 25% of seats as per their 2008 Constitution.

The military ("Tatmadaw" in Myanmar) alleged, there was large scale "irregularities" in the general elections. But the United Elections Commission (UEC) of Myanmar said that no such irregularities have occurred during the elections.

The new parliament fixed February 1 for convening the session and swearing ceremony. To prevent the parliamentary session, the military staged the coup in the early morning of February 1 and detained the political leaders.

Apart from that, the military also declared a one-year state of Emergency. The military also threatened to revoke the 2008 Constitution, "If one does not follow the law".

The military had revoked two previous constitutions in Myanmar. Now, there is a possibility of revoking the present constitution. In fact, the 2008 Constitution was also the military-drafted one.

[Read more about modern Myanmar history and other details](#)

### What is the stand of various countries on the coup?

Ministry of External Affairs of India mentioned that India will "always been steadfast in its support to the process of democratic transition" in Myanmar.

UN Secretary-General has condemned the coup in strong words.

The US warned Myanmar's military officials against a coup attempt. It has threatened to "take action" if the military proceeded with the coup.

The Australian government calls for the release of detained leaders.

China, on the other hand, asks all the sides in Myanmar to resolve the dispute on its own.

### Why Myanmar is important for India?

**First, Myanmar's role in tackling insurgency in Northeast:** Myanmar shares a 1643 Km long boundary with India's North Eastern State. Insurgent groups such as ISCN-K, ISCN-IM have operational bases inside Myanmar. The democratically elected government cooperated with India in controlling the insurgent activities especially, the Naga insurgency.

**Second, Myanmar's role in India's "Neighborhood First" policy and "Act East" Policy:** Myanmar is strategically located between India and Southeast Asian countries. Due to that, Myanmar is important for India's connectivity with other South-East Asian countries.

**Third, Reduction of illegal migrants coming to India:** During the recent Rohingya issue, 14000 registered and 40000 unregistered refugees came to India. A stable Myanmar can prevent this fleeing of refugees.

**Fourth, Myanmar is the gateway to the development of North-Eastern India:** The success of infrastructure, developmental projects in the North-Eastern part of India directly depend on

the co-operation with Myanmar. For Example, the Development of **India-Myanmar-Thailand (IMT) trilateral highway**, **Kaladan Multi-Modal Transit Transport (KMMTT) corridor**, etc rely on Myanmar.

### Present areas of Co-operation between India and Myanmar:

**First, Co-operation in the field of Economy:** The bilateral trade among both the countries remained in and around \$2 bn. The trade will improve once there is a stable government in place.

**Second, Co-operation in the field of Infrastructure and Development projects:** In 2013 India provided a 500 million \$ LOC (Line of Credit) for the developmental projects in Myanmar. Apart from that **IMT trilateral highway** and **Kaladan Multi-Modal Transit Transport (KMMTT)** are also under implementation.

- **India-Myanmar-Thailand(IMT) trilateral highway:** The Highway connects Moreh in the Indian state of Manipur to the Mae Sot in Thailand. This route is interconnected via Mandalay in Myanmar.
- **Kaladan Multi-Modal Transit Transport (KMMTT) :**



- The Project is aimed at connecting the eastern Indian seaport of Kolkata with the Sittwe seaport in Myanmar.
- In Myanmar, it will then link Sittwe seaport to Paletwa in Chin State via the Kaladan riverboat route. Then from Paletwa by road to Mizoram state in Northeast India.
- India constructed **Sittwe Port** as a deepwater port in 2016 at Sittwe.
- **Significance:** The project will reduce the distance from Kolkata to Sittwe by approximately 1328 km. In other words, the project will reduce the need to transport goods through the narrow Siliguri corridor also known as Chicken's Neck.

**Third, Defence cooperation:** Both the countries conduct a joint military exercise named India – Myanmar Bilateral Military Exercise (IMBEX). Above all, both the armies jointly carried out **Operation Sunrise** twice. Under **Operation Sunrise**, the India-Myanmar armies jointly target the militant groups that operates in the border states.

**Fourth, In the field of education and research:** India developed **Myanmar Institute of Information and Technology in Mandalay**. Apart from that, an Advanced Center for Agricultural Research and Education (ACARE) has been set up with the collaboration of ICAR for conducting research on pulses and oilseeds.

**Fifth**, Other areas of co-operation. This includes India's **renovation of the 11th Century Ananda Temple in Myanmar** (it was damaged due to earthquake). Apart from that India also provides Humanitarian and Disaster Relief to Myanmar during emergencies.

#### Suggestions:

**First**, India can aid the democratically elected government if there was a request from Myanmar. Myanmar is India's strategic partner like Nepal, Bangladesh. India can help Myanmar like that of erstwhile Bangladesh in 1971.

**Second**, India has **to strengthen the existing cooperation**. India currently has an active co-operation with Myanmar in areas of security, counter-terrorism, trade and investment, energy co-operation. India has to encourage more active co-operation in these fields.

**Third**, India can **formalise border trade** with Myanmar. Currently, India's Border trade with Myanmar is at a very low level. By formalising border trade like that of Border Haats in India-Bangladesh and providing enough support, we can improve people to people tie. It will also provide peace in long run.

**Fourth**, India can assist Myanmar in the **implementation of the Kofi Annan Advisory Commission report** on Rohingya Refugee issues. The commission has recommended investing in infrastructure projects. The recent Indian government move in developing the Sittwe port in Myanmar's Rakhine state is one such move.

[Read also India- Myanmar relations after Coup](#)

Myanmar is not only strategically located but also in a strategic position to fulfill India's ambition on developing North-East, connection with South-East Asia, etc. So, it is high time for India to help the Myanmar government to be a stable and democratic one.

## Vehicle Scrappage Policy and the associated challenges: Explained

Recently, The Finance Minister announced the “Vehicle Scrapping Policy” in her Budget speech. The policy will phase out older, inefficient and polluting vehicles. Apart from that, the policy will also promote the use of more environment-friendly vehicles and reduce the oil import bill. But it is not an easy task and has a few challenges associated with it.

### What is the proposed Vehicle Scrappage Policy?

The Ministry of Road and Transport is yet to announce the proper guidelines. But according to the Budget speech, the important provisions of the scrappage policy will include the following features. Such as

- The private vehicles older than 20 years and commercial vehicles older than 15 years, can be scrapped voluntarily. To run these vehicles on the road, a fitness certificate (FC) will be mandatory.
- Automated vehicle fitness centres belong to the government will issue certificates after conducting fitness tests.
- Each fitness certificate is valid for five years. After that vehicle will undergo another fitness test.
- If a vehicle fails the fitness test, the government will not provide renewed Registration Certificates (RC) for those vehicles. As per the Motor Vehicle Act, 1988, driving a vehicle without an RC is illegal in India.
- Each vehicle is permitted to have three failures in the fitness test. After that, the vehicle might be forwarded to vehicle scrapping.
- The government is expected to provide monetary incentives to the owners scrapping the vehicles.

Each fitness test will approximately cost Rs 40,000. If the vehicle passed the fitness test, the owner of the vehicle has to pay road tax, and a possible “Green Tax” (Tax levied on goods that cause environmental pollution).

The total cost involved in pursuing a Fitness test and paying “Green tax” will act as a deterrent to have older vehicles. This will further facilitate voluntary Scrapping of the old vehicle and buying a newer one.

[Read more about the proposed Green tax](#)

### Need for such Vehicle Scrappage Policy:

**First**, According to the Centre for Science and Environment (CSE), **by 2025 India will have over two crore old vehicles nearing the end of their lives.** Not only that, India adds 1,400 vehicles every day. The scrappage policy will reduce the congestion on the roads.

**Second, A logical extension of NGT ruling for Delhi NCR and Scrappage policy of Government Vehicles.**

- In 2015, National Green Tribunal barred diesel vehicles older than 10 years to commute on Delhi NCR roads. The scrappage policy is the next step to prevent them from further commuting on roads.
- Further, the government accepted the Scrappage policy for Central and State Government vehicles older than 15 years on January 25, 2020. The policy will come into effect on April 1st, 2022.
- Apart from that, the government also introduced a draft **Vehicle Fleet Modernization Programme** in 2016. But the project never got materialized.

**Third**, IIT Bombay’s conducted a multi-city study in 2014. The study estimated that **pre-2005 vehicles were responsible for 70 per cent of the total pollution load from vehicles.** The scrappage policy will be a shot in the arm for these polluting vehicles.

### Benefits of the proposed policy:

**First,** The Scrapage policy will **benefit the following sectors at one go.**

- The policy will stimulate the domestic automobile and automotive industry. The **automobile industry is projected to grow at an annual rate of 22%** if this policy is implemented properly.
- Apart from that, it will provide a massive opportunity for players in the organised scrapping and recycling industry. The scrapping will provide **recovery of steel, aluminium, plastic** etc. and boost the industries associated with it.

**Second, Curbing air pollution:** Old vehicles are not compliant with Bharat Stage VI emission standards. This is leading to more air pollution. For example, one 15-year-old vehicle has emissions equivalent to 25 new-generation vehicles. The scrapping policy will reduce the pollution level by 25 percent as compared to old commuting vehicles.

**Third, Increase in tax revenue for the government.** The revival of the automobile and other sectors associated will boost the tax revenues. According to an estimate, taxes from the automobile sector will amount at Rs 10,000 Crores, if scrapping policy is implemented properly.

**Fourth, Containing oil imports:** According to the BEE (Bureau of Energy Efficiency) estimates, India has to enforce Scrapping old vehicles and shifting towards higher fuel efficiency norms. If it is achieved, then as per the BEE estimates, “there will be a reduction of 22.97 million tons of fuel demand in India by 2025”. This will help in saving oil import and associated costs.

**Fifth, Fulfilling India’s International commitments:** India has committed to the Paris Agreement on Climate Change and provided national targets for reducing emissions. The Scrapping policy will reduce the pollution level and also fulfil India’s commitment to reduce CO2 levels to tackle Climate Change.

Overall the Scrapping Policy has the potential to **revive the Indian Steel sector** and also has the potential to promote India as a **vehicle manufacturing hub** in the world.

### Challenges associated with the Vehicle Scrapping Policy:

**First, Who will bear the cost of monetary incentive provided to owners?** The scrapping industry may provide incentives for scrapping older vehicle (like recovery of scrap, steel etc.). The government is not a direct beneficiary except the environmental cost. Thus, providing incentives from public money might not be feasible.

**Second,** In rural areas, **old vehicles are being used** as the owners have very limited financial resources to purchase new vehicles.

**Third, Scrapping capacity of India is in doubt.** India so far has only one government-authorized scrapping workshop in Greater Noida. Also, the government do **not have any standard operating procedures (SOP)** for setting up of vehicle scrapping centres. Formulating a policy without having the capacity will lead to accumulation of old vehicles like solid wastes.

**Fourth,** Regulation of pollutants released during scrapping. The scrapping of Vehicle will release **toxic metals like mercury, lead, cadmium or hexavalent chromium.** If not properly regulated, it will pollute the environment and have long-lasting consequences.

[Read more about the taxing older vehicles: a way forward](#)

### Suggestions:

**First,** In the Electric Vehicle Policy of the Delhi government, they linked scrapping incentives with buying of electric vehicles. Such a special linkage of policy is necessary at the national level to promote the electric vehicle.

**Second,** There **must be an exception for Vintage and Classic cars.** The government also have to introduce a provision for Modern Classics. These are an important part of automotive

history and the history of humanity. Since most of these vehicles are used sparingly and in the well-maintained condition, they can be exempted.

**Third, Centre for Science and Environment (CSE)** released a report titled “**What to do with old vehicles: Towards effective scrappage policy and infrastructure**”. In that, the CSE gave a **few important suggestions for vehicle scrapping policy** in India. They are

- There should be a separate effort to **include Extended Producer Responsibility (EPR)** in collecting the car for scrapping. Apart from that, there should be legally binding rules **for scrapping**.
- The scrappage scheme should **incentivise replacement of old vehicles with EVs**. On the other hand, the government should also frame a policy **to reduce the purchasing of traditional petroleum-powered vehicles**.

The Scrappage policy has the potential to meet the government-set target of 30-40 percent electrification of the vehicle fleet by 2030. But it can be sustainable only when the government provide adequate support to Electric Vehicles such as by creating the necessary infrastructure for charging, manufacturing battery packs etc.



## Recommendation of 15th Finance Commission and challenges faced by Local Bodies

Recently, [15th Finance Commission](#) report has provided many recommendations for improving the functioning of Local Bodies. The challenges faced by local bodies in India are manifold and there is no one-stop solution to them.

### Approach of previous Finance Commissions with respect to Local Bodies:

So far four Finance Commissions (11th FC to 14th FC) have given their recommendations for local bodies. Overall they provided for,

**First, the increase in quantum of Funds:** In recent years, the grants recommended by successive Finance Commissions in absolute terms have increased. For example, the combined grants for rural and urban local bodies recommended by the 14th FC were three times the amount recommended by the 13th FC.

**Second, different Commissions followed distinct criteria** while recommending resources for local governments. The only common criteria considered by all of them were population and geographical area.

### Recommendations of Fifteenth Finance Commission:

**First**, the 15th FC suggested strict adherence to its recommendation for the constitution of State Finance Commissions(SFCs).

- It recommends “All States must constitute SFCs and also act upon their recommendations”.
- States also need to place the action taken report before the State legislature on or before March 2024.
- No grants should be released to the States that have not constituted SFC.
- MoPR(Ministry of Panchayati Raj) will certify the compliance of the State in this respect before the release of their share of grants.

**Second**, with respect to the **Grants to Local Governments**, the commission earmarked 60 per cent of funds for national priorities. These priorities include drinking water supply, rainwater harvesting and sanitation etc. The other recommendations include,

- The report favours a fixed amount rather than a proportion of the divisible pool of taxes. This is to ensure greater predictability of the quantum and timing of fund flow
- The report provides **entry-level condition to local bodies to avail grants. These conditions will include** online availability of both provisional accounts of the previous year and audited accounts of the year before that.

**Third**, the report calls for the **Integration of the Financial Management Systems** for transparency in the audit and functioning of local bodies.

**Fourth**, the report recognises **Urbanisation as the Engine of Growth**. It mentions few important recommendations like,

- **Establishment of Million-Plus Cities Challenge Fund** for cities having million-plus population. The devolution of the fund will be linked to the performance of these cities in improving their air quality and meeting the service level benchmarks for urban drinking water supply, sanitation, and solid waste management, etc.
- It also mentions that informal burning, as well as spontaneous combustion at landfills in Urban areas, should be monitored carefully.
- The report calls for **basic grants** for urban local bodies in the non-Million-Plus cities category.
- The report also asks for allocating grants on the basis of population for the Cantonment Boards falling within the State's territory.

**Fifth**, the 15th FC's other recommendations include:

- Involving Panchayati Raj Institutions as supervising agencies in primary health care institutions. The Commission believes, it would strengthen the overall primary health care system.
- The commission provided for a **performance-based challenge fund** of Rs. 8,000 crore to States for incubation of new cities.
- The commission recommends an **amendment to the Constitution** to revise the professions tax.

**Various challenges faced by the local bodies:**

**Challenges with respect to functions:**

**First**, there is an **Excessive control of State government** in the functions of PRIs. For example, state government approval is needed in project finalization, Local bodies Budget, Loan requirement, etc. States, instead of guiding PRIs, are restricting the functions of local bodies.

**Second**, local bodies **lack adequate data on essential services and cannot involve in Urban and Rural planning**. Though data on Census is available, it consists of data of previous years and not the current data. For example, they do not have data on local traffic, urban sewage, migration of people, etc.

**Challenges with respect to funding:**

**First**, Article 243-I of the Constitution requires SFCs(**State Finance Commission**) to be appointed at the 'expiration of every fifth year'. Several States have still not moved beyond the second or third SFC. Even if formed they face challenges like inadequate resources, poor administrative support and the delayed placement of action taken reports(ATR), etc.

**Second**, the tax base of Urban and Rural local bodies is **very narrow**. For example, Urban Local bodies **cannot levy a profession tax of more than 2500**. They also have a problem in levying entertainment taxes and property taxes.

**Third**, the Majority of the local bodies **do not have access to the Capital market to raise required funds** except few Urban local Bodies such as Pune, Chennai, etc

**Challenges with respect to the Functionaries:**

Role of **women elected members**. There are many instances where, in the name of elected women representative their husband operates and takes the decision on her behalf. This undermines the agenda to empower women by providing 33% reservation to them.

**Suggestions with respect to functions:**

**First**, the Second ARC has recommended a special problem-solving body to resolve the issue of disqualification of elected members. It also suggested an unbiased approval of Local body budgets, projects, etc. State governments need to implement this.

**Second**, State Governments **should provide local bodies with the power to recruit personnel** to fulfil their functions properly. Apart from that the State governments also have to allow the local bodies to collect the local data for future use and preliminary planning.

**Suggestions with respect to funding:**

**First**, States should implement 15th FC recommendation to appoint SFCs or else grants released to the respective State can be halted.

**Second**, the power to levy taxes on the Union and State Government properties can be provided to local governments. Apart from that, they should be empowered to levy taxes on wealthy people in their locality, impose water cess, irrigation cess etc. **For example**, a case

study in Karnataka has proved that the levy of water cess is a feasible alternative for local bodies.

**Third**, separate grants may be allocated to local bodies for creating public health infrastructure and primary health care clinics.

**Suggestions with respect to the functionaries:**

To improve the performance of functionaries, the **timely election** is the need of the hour. Apart from that, the State can encourage Public-Private Partnerships. It will improve the skills of elected local representatives with market expertise and modern methods.

The state government can form strict guidelines for the active involvement of elected women representatives in all spheres of the functioning of local bodies.

Apart from implementing the recommendations of the 15th FC, the voluntary contribution of States is also the need of the hour. The States have to understand that empowerment of local bodies is needed to find solutions to the number of issues faced by them like enhancing tax base, providing adequate primary health and education services, etc.

## Green Energy Initiatives in Budget 2021- Explained

Green energy initiatives are one of the most focused sectors in Budget 2021. India is already the 4th largest country in terms of total Renewable Energy installed capacity in the world. With the help of budgetary allocation and private participation, India has all the chances to be a global leader in green energy. But it is not an easy task as India is also facing many challenges in the implementation of its green energy initiatives.

### What is Green Energy?

The power generated from natural sources is termed as green energy. For example, wind, water, sunlight etc. Green energy is clean, eco-friendly and sustainable. Green energy has a very minimal negative impact on the environment and also provides the highest environmental benefit.

### Present installed capacity of India:

**First**, the economic survey mentions solar energy of cumulative capacity of 36.9 GW has commissioned till November 2020. Around 36 GW solar energy capacity is under installation, and an additional 19 GW capacity has been tendered.

**Second**, the Ministry of New and Renewable Energy (MNRE) mentions 38.6GW of Wind energy power plants has commissioned till December 2020. The MNRE also mentions around 10 GW of Biomass-based power plants has commissioned.

On an average, the renewable energy installed capacity till December 2020 stands above 91GW.

### Need to focus on Green Energy:

**First**, green energy will **reduce India's oil import bill**. India currently imports 84% of its oil needs. If India enhances its green energy capacity then the oil import bill of India will come down drastically.

**Second**, green energy being clean and eco-friendly **will reduce the level of Pollution in India**. Air pollution is the **third-highest** cause of death if we consider all health risks. Apart from that, India recorded the world's highest annual average concentration of PM 2.5 exposure in its air in 2019

**Third**, India's **international commitments**. India being a party to Paris Climate Agreement 2015, submitted its Nationally Determined Contributions (NDC). In this India promised to increase the share of non-fossil fuels-based electricity to 40 per cent by 2030. So the focus on green energy is much needed.

**Fourth**, the **failure of global commitments**. The year 2020 was supposed to be the year by which developed countries of Paris Agreement were about to fulfil the goal of jointly mobilizing US\$ 100 billion a year for climate finance. But it has not materialized. So India has to invest on its own and not rely on the global community as India is one of the **most vulnerable countries to Climate Change**.

**Fifth**, **current capacity is insufficient to meet India's target of 450 GW renewable energy by 2030**. India at present has the capacity to produce 2-3 GW solar PV(Photo Voltaic) per year. But to achieve the target of 450 GW, India needs to have at least 30 to 40 GW manufacturing capacity of renewable energy per year.

### Budgetary allocation on green energy:

This year's budget primarily focuses on spending on infrastructure development and also increasing the domestic capacity of green energy manufacturing in India.

**First**, the budget provided the target of 100% electrification of Broad Gauge Routes in Railways by 2023. At present 63 per cent of total broad-gauge routes are being electrified in India.

**Second**, the budget also has a proposal for the launch of the **National Hydrogen Energy Mission in 2021-22**. The government stressed on the green hydrogen (Hydrogen is obtained from clean and green sources).

#### **Benefits of Hydrogen:**

Department of Science and Technology has released a report 'India Country Status Report on Hydrogen and Fuel Cells'. That report mentions, "Hydrogen has better combustion characteristics, high energy density, nonpolluting nature etc, and also has vast advantages as compared to the conventional fuels".

Hydrogen can satisfy India's mobility and energy security demands. Today, India produces around 6 tonnes of hydrogen. TERI estimates that it will increase to 5 times by 2050. Benefits of Hydrogen will be

- 
- It can be used as fuel for long-distance mobility. For example, Railways, shipping and trucks etc can use Hydrogen as a fuel.
- It can co-exist with the Electric vehicle in long-distance travel. As the EVs require charging of vehicle which is not feasible for long-distance travel. For example, 1KG of hydrogen can give 100KM range for a car.
- Hydrogen can also act as a carrier device to store energy.
- Like Solar energy, Hydrogen is also **cost-effective in long run**. For example, the initial investment in solar was 17 Rs per unit in 2010. But today the cost was around 2 Rs per unit or even less than that.

Japan and Australia also focus on Hydrogen as future energy. On the other hand, Germany and Italy are planning to power trains with hydrogen.

The Department of Science and Technology under the hydrogen and fuel cell programme is currently supporting nearly 30 hydrogen research projects in India.

**Third**, the budget provided for **more metro and community transport** initiatives to reduce the carbon footprints of private transport. For example, Private financing of Rs. 80,000 crores for 20000 new busses in India and Innovative financing with Public-Private Partnership (PPP) models for the transport sector.

**Fourth**, the budget also provided for **Voluntary Vehicle Scrapping Policy** in India. This is applicable for private vehicles older than 20 years and commercial vehicles older than 15 years.

**Fifth**, more focus on the **capacity building of solar energy**. For example, duty on the solar inverter, solar lanterns were raised from 5 to 20 and 15% respectively. This will boost domestic manufacturing and deter imports.

**Sixth**, the government has earmarked Rs 2,217 crore for **42 urban centres with a million-plus population to focus on clean air**. The overall focus will be on segregated waste management, handling of construction and demolition debris, stress on public transportation and emphasis on renewable energy.

#### **Challenges faced by green energy initiatives:**

**First**, currently, India imports the majority of its solar equipment from China. The domestic solar equipment manufacturing needs a boost to reduce India's dependence.

**Second, weather-dependent:** Green energy sources like solar, wind, etc., are primarily dependent on weather conditions. If the favourable weather conditions are not available, it becomes inefficient and inconvenient.

**Third, location and occupation of space:** Most green energy plants occupy large areas. Land acquisition in India to implement projects is one of the worst-ranked factors in Ease of

Doing Business Report of the World Bank. Apart from that, there is also an issue of the cost of the vast land area.

**Fourth, high initial cost:** The coal-based power plants require an initial investment of about Rs. 4 crores per MW, the investments required for solar and wind energy plants are even much higher.

**Fifth, acceptance of green energy in society:** Despite government's incentives like installation of solar water heaters at home and solar pumps under KUSUM scheme, etc, the penetration of EVs, solar and other green energy initiatives are very low.

#### **Suggestions to improve green energy in India:**

**First, India needs to promote consumer awareness.** The government has to use the techniques like green labelling of products, allow more tax incentives and discouraging consumers from using conventional energy devices etc. The government can also launch a mass awareness campaign in rural India to improve penetration level.

**Second, India needs to build the capacity of Green technology and associated industries.** But it is only possible with proper land leasing and land acquisition policy, faster environmental clearance of projects etc.

**Third, India also has to focus on research capacities.** Not only we need to start manufacturing, but also we need to build research capacities in relevant technologies. So that India can be self-sufficient in long run and also avoid staying dependent on other countries like India was depending on China on solar and PV equipment.

**Fourth, India has to frame an integrated approach.** It should focus on the domestic and international front to get the necessary resources, market access to sell the green products and other essentials required for the improvement of green technology.

**Fifth, the collaboration of states is also needed.** There are 11 states that have rolled out E-mobility plans. Other states also have to release their individual State plans to support India's National Action Plan on Climate Change (NAPCC).

In conclusion, an estimate suggests that India has the capacity to extract 900 GW energy from commercially available sources like wind energy, solar energy etc. The estimate can turn into reality only when all the stakeholders (government, private and public) work and contribute towards it.

### Indigenisation of defence -Explained

Indigenization of the defence sector is one of the foremost targets for Indian government since Independence. Recently, Asia's biggest Aero Show **AeroIndia 2021** was conducted in Bengaluru. During the show, Defence Minister highlighted India's growing presence in designing and developing indigenous weapon systems. Let's see, how India is performing in indigenisation of defence despite the challenges.

#### Present status of Indigenisation in India:

- Millennium Aero Dynamics and Cochin Shipyard jointly developed and produced the **INS Vikrant**. It is the first aircraft carrier built in India completely.
- BARC and DRDO jointly developed India's first indigenous **nuclear submarine Arihant**.
- HAL along with Taneja Aerospace and Aviation Limited (TAAL) is developing Dhruv multirole helicopter, Light Combat Helicopter (LCH) and Rudra armed helicopter. They are also manufacturing Tejas Light Combat Aircraft in India.
- DRDO is currently working on an indigenous unmanned aerial vehicle named **Nishant**.
- Under the **Integrated Guided Missile Development Programme (IGMDP), India developed 5 missiles in India namely**
  - **Akash** (surface-to-air)
  - **Prithvi** (surface-to-surface)
  - **Nag** (anti-tank)
  - **Trishul** (the naval version of Prithvi)
  - **Agni** Ballistic missiles having different ranges – Agni V has given India an ICBM (Intercontinental ballistic missile) status in 2013.

#### Need for indigenous defence sector:

**First, reducing India's Fiscal Deficit:** Currently, India's defence sector imports stand at 70%. This makes India the 2nd largest **arms importer in the world, only** next to Saudi Arabia. According to the Stockholm International Peace Research Institute (SIPRI), in 2019, India became the third-largest defence spender in the world. So, indigenisation of the defence sector is necessary to reduce the Fiscal Deficit.

**Second, national security at risk:** India shares **porous borders with hostile neighbours**. Currently, imported equipment in India are creating multiple challenges related to their Maintenance, Repair & Overhaul (MRO) due to non-availability of spares and assemblies. These equipment without proper MRO can put India under major risks mainly during the war like situation. For example, recent military standoff with China. This will put India's national security at risk. So indigenisation is necessary.

**Third, generation of employment:** Defence manufacturing is one of the very few sectors that will lead to multiplicity of employment benefits. As per the government estimates, just 20-25% import reduction will directly create 100,000 to 120,000 additional highly skilled jobs in India. Apart from that, it will lead to large scale innovation, a huge number of spin-off industries and start-ups etc.

**Fourth, boosting Indian exports and generating forex reserve.** The SIPRI data mentions India as the 23rd largest country in terms of defence exports. This shows under-performance considering the fact that, India spent \$71.1 billion in the defence sector in 2019 alone. India can export indigenously produced defence technology and equipment to the neighbouring nations. Like space and nuclear research, R&D in defence sector will increase the focus on both civil and military economy.

**Fifth, indigenous equipment will** increase the trust and confidence of the Indian defence forces. It will also strengthen India's image in the global arena.

**Government initiatives to boost indigenisation in defence sector:**

**First**, India introduced the **Defence Procurement Policy** to focus on self-reliance. The policy allowed the (DAC) **Defence Acquisition Council** to “**fast-track**” ways to acquire weapons. The policy aims **2025 to be the year to become self-reliant in 13 weapons platforms**. These include missiles, warships, tanks, aircraft, and artillery. These comprise the bulk of Indian imports.

**Second**, the establishment of **E-Biz Portal**. It is an online portal to process applications for Industrial Licences (IL). The Government also set up **Innovations for Defence Excellence (iDEX) framework**. It aims to create an ecosystem to foster innovation and technology development in Defence and Aerospace.

**Third, removal of annual capacity restriction** criteria for defence industries. This is to facilitate more number of startups in the defence sector.

**Fourth**, the government also approved the **Strategic Partnership Policy**. This is to promote Joint Ventures (JV) between global defence majors and the indigenous private sector. Under this, the government will designate certain private players a status of Strategic Partner (SP). That SP will have long term relationships with global defence majors to learn the technology and also to build the capacity at the local level.

**Fifth**, the **change in FDI policy**. The government earlier allowed 49% of FDI under the automatic route. But in 2020 the government increased this to 74%. This will act as a major boost to the defence sector as it will not only increase FDI but it will also increase the number of startups.

**Sixth**, recently the government imposed a ban on **101 import items in the defence sector** to boost indigenisation. These include high tech weapons like artillery guns, sonar systems, assault rifles, radars, transport aircraft, etc. As a result of this, now the defence forces will procure these equipment only from the domestic manufacturers.

**Challenges in indigenisation of defence sector:**

**First, private sector participation is very low**. Currently, India depends on DRDO and defence PSUs for the majority of its needs. There is an issue of **land acquisition** in India. This, coupled with non-availability of Permanent arbitration committee to settle disputes in India leads to lower private participation.

**Second, manufacturing and procurement-related delay**. There are bureaucratic and political hurdles in India. Indian defence suppliers also take more time to complete the projects. There is also a problem of delay in the delivery of the projects. This **hurts** India's image as a **trusted supplier**.

**Third**, conflict between the **manufacturers & defence forces**. Defence forces being on the ground of the battlefield, know that the border areas demand some specific design and characteristics of the equipment. But there is a conflict between the manufacturers and defence forces in India regarding the design, capacity etc of the defence equipment. All this leads to inefficient coordination between the military, academy and industry.

**Fourth**, most of the Indian **defence budget goes towards salaries, retirement benefits, perks and benefits, MRO of equipment etc**. This limits the government capacity to focus on long-term budgeting towards the defence sector.



**Suggestions to improve indigenisation:**

**First**, the government can **implement the Shaketkar committee recommendations** on the **closure of Army Postal Establishments and Military Farms in peace locations** swiftly. Apart from that government can also consider the Chief of Defence Staff opinion. He mentioned increasing the retirement age to improve government spending on other relevant activities.

**Second, boosting private sector participation is the need of the hour.** This can be achieved by creating a **permanent arbitration cell**, ensuring level playing field for private companies like that of PSUs.

**Third**, the government can provide an autonomous status to DRDO. It will improve the number of sub-contracts to the private sector and also instil the confidence to private sectors.

**Fourth**, the government have to improve the in-house design capacity like that of Naval Design Bureau. This will reduce the conflict with manufacturers in design and capacity.

**Shaketkar committee** recommended transformation of 'The Military Intelligence School' at Pune into **'tri-service intelligence training establishment'**.

According to SIPRI, India's military expenditure in 2019 was 2.4% of its GDP. It was higher than the combined expenditure on health(1.5%GDP) and research (0.7% of GDP). The government needs to improve the indigenization in defence sector at the war pace as it has many benefits such as reducing Fiscal Deficit, improvement in manufacturing etc.

## DNA Technology Regulation Bill -Explained

Recently the Parliamentary Standing Committee (PSC) asked the government to pay “careful attention” to the DNA Technology (Use and Application) Regulation Bill, 2019. The PSC mentioned the DNA Technology Bill as very technical, complex and sensitive. But the PSC also mentioned the advantages of the Bill. All this raises the important question. Is India ready to have the DNA Technology Bill?

### Need for such DNA Technology Bill in India:

**First**, countries having such legislation like the USA, have proved a **significant increase in conviction rate**. According to NCRB, India’s **conviction rate is 48.8% only in 2017**. The conviction rate can improve significantly if the DNA Bill is enacted in India.

**Second**, in India, **Each year more than 4000 FIRs filed for not recognising the victim’s body**. Not only that, In India **around 175 persons missing each day**. The bill will help in identifying them very easily with scientific intrastate co-operation.

**Third**, the Bill will come in handy during the **parental disputes resolution**. The Bill can also **establish the identity of missing children and baby-swapping cases in hospitals**.

**Fourth**, **accurate and faster investigation of crime** is feasible. Since the Bill **maintains a database for convicts and suspects**, the crime scene investigation will completely be based on scientific principles. **This can result in a faster and accurate investigation** by police officers.

**Fifth**, the Bill will **help in research works in DNA** and also **create employment opportunities for skilled manpower and other non-skilled jobs**.

### Significance of DNA technology:

DNA analysis is **extremely useful and accurate**. DNA analysis can ascertain the identity of a person from his/her DNA sample. The DNA sample can also establish biological relationships between individuals. For example, A hair sample or blood stains from clothes taken from a scene of the crime can clearly establish whether the DNA in the sample belongs to the suspected individual or not.

As a result, DNA technology is being increasingly relied upon in **investigations of crime, identification of unidentified bodies, or in determining parentage, etc.**

### Salient provisions of the DNA Technology Bill, 2019:

First, the Bill mentions the **situations under which DNA Data will be used**. Under the Bill, **DNA testing is allowed only in respect of 4 matters**. They are,

1. For offences under the Indian Penal Code, 1860.
2. Civil disputes and other civil matters related to paternity suits, or to identify abandoned children.
3. Offences under certain special legislations like Immoral Trafficking prevention Act, MTP Act etc.
4. Medical negligence or unidentified human remains

**Second**, while preparing a DNA profile, bodily substances of persons may be collected by the investigating authorities. There are certain conditions mentioned under which the DNA will be collected. Like,

- For arrested persons, if the offence carries a punishment of up to seven years. Consent is needed to collect the DNA sample.
- If the offence carries more than seven years of imprisonment or death, consent is not required.

**Third**, **the Act establishes the DNA Data Bank**. The data banks will be established at the **National and regional level**. At the regional level, the data bank will be established for every state or two or more states.

**Fourth**, the Bill states that the **criteria for entry, retention or removal of the DNA profile** will be specified by regulations. **The Bill provides that the information contained in the crime scenes will be retained.**

**Fifth, the Bill also establishes a DNA Regulatory Board.** This DNA Regulatory Board will supervise the DNA Data Banks and DNA Laboratories. The Secretary, Department of Biotechnology, will be the ex officio Chairperson of the Board.

**Sixth, the Bill also has a provision of mandatory accreditation** from the Board to establish DNA Laboratories in India. **The Board may revoke the accreditation for reasons** such as failure to **undertake DNA testing or the non-compliance of DNA Lab with the conditions attached to the accreditation.**

#### **Arguments against the Bill:**

**First**, concerns **regarding the collection of DNA itself.** DNA is the base of any individual person. DNA not only not just reveal how a person looks, or what their eye colour or skin colour is. It will also reveal more intrusive information like their allergies, or susceptibility to diseases etc.

**Second**, the collection of DNA has also seen as a **violation of two Fundamental Rights.** Such as Right to Privacy under Article 21 and Right against self-discrimination under Article 23. The Bill is also seen as a violation of the **Universal Declaration of Human Rights.**

**Third, science advances more quickly than law.** Scientific laws if legislated, they need frequent course corrections to prevent misuse. In India, there are few legislations which are being used for centuries without any amendments. Failure to bring the amendment at a necessary stage will create a plethora of problems.

**Fourth**, there are **only 15 DNA profiling labs in India.** **DNA Training Academy** also faces a shortage of manpower. Considering this situation one cannot ensure a smooth implementation like DNA profiling, etc

**Fifth**, there is also a **privacy concern.** The DNA data can be misused just like other personal information like Cambridge Analytica scandal of Face book. For example, **the Andhra government signed up with a private firm to collect DNA data from all citizens.** The private firm may misuse the data for profit motives.

**Lastly**, there is also a possibility of **Miscarriage of Justice.** Like by planting innocent person DNA in crime scenes to confuse the investigation and if a crime scene is occurred in commonplace then many innocent might be harassed.

#### **Arguments favors DNA technology Bill:**

**First**, there will be **no racial and communal profiling possible.** The government mentions it will store very limited information in the DNA profile. That is just 17 sets of information (from the billions of information available in DNA sample). This will not reveal any personal data about an individual.

**Second**, DNA tests are already happening without any regulatory safeguards. The PSC in its recent report mentions the importance of the DNA Bill to bring the DNA tests into the ambit of the law.

**Third**, an **individual's privacy** is ensured in the Bill. The Bill has very specific provisions for the collection of DNA data. The DNA is not collected from common people and it is collected from the convicts and missing person. The PSC also supported the view in its recent report.

#### **Way forward:**

**First**, the law would be better implemented if the **Data Protection Bill** based on the **Sri Krishna Committee** is passed first. Since the Data Protection Bill fixes the privacy of data protection.

**Second**, there is also a **need for a robust procedure and policy** for collection of DNA samples, within the constitutional provisions like respecting Article 21. Apart from that the policy also has to respect the **Universal Declaration of Human Rights**.

In conclusion, It is much-needed legislation. If implemented clearly then there going to be the voluntary submission of DNA. But that will be possible if the government enacts the Bill with necessary checks and balances.

ForumIAS

## Glacial Lake Outburst Flood (GLOF) in Uttarakhand -Explained

Recently a glacial burst has occurred in Nanda Devi glacier in Uttarakhand's Chamoli district. 19 bodies have been recovered so far and over 150 persons went missing in the glacial outburst. Many geologists issued warnings that these types of climate-related disasters are going to increase. They all pointed out global warming as a major contributing factor to these disasters.

### What happened in Uttarakhand?

A part of the Nanda Devi glacier broke off and flooded the Rishiganga river in Chamoli district of Uttarakhand. It led to massive flood in the region that damaged many villages in its path. The flood also wiped out two hydroelectric power projects on its way;

1. The Rishiganga hydroelectric power project (13.2 MW)
2. The Tapovan hydroelectric power project on the Dhauliganga river (a tributary of the Alakananda).

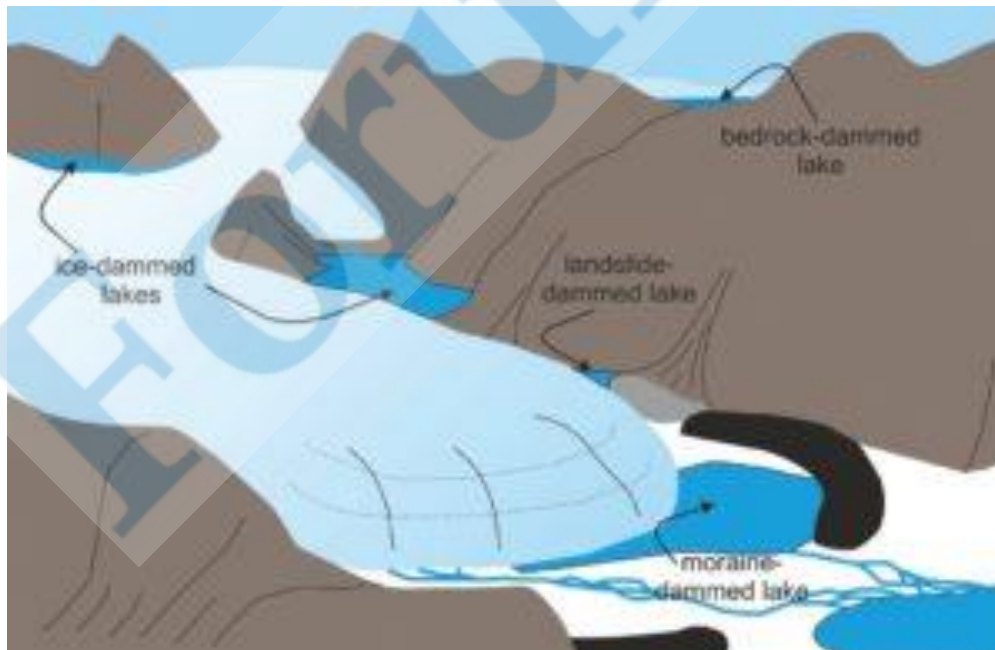
The scientists call the glacial burst an "extremely rare event". Whether it was a glacial lake burst or an avalanche, is still unknown.

Wadia Institute of Himalayan Geology, Dehradun has sent two teams of scientists to the area. The team will study the possible cause and find out the exact reason behind the glacial burst.

**What is a glacier? and what is glacier retreat?** Glaciers are large masses of ice that flow slowly downhill like water flowing down as a river. A glacier grows (advance) whenever snow accumulates faster than it melts. Glacier retreats (shrinks) whenever the melting exceeds accumulation. Most of the world's glaciers have been retreating since about 1850.

### What is Glacial burst?

Retreating glaciers, usually result in the formation of lakes at their tips. These lakes are called **proglacial lakes**. These proglacial lakes are often bound by sediments, boulders, and moraines.



If the boundaries of these lakes are breached, then flooding will take place downstream of that glacial lake. This is called a Glacial Lake Outburst Flood or GLOF.

The occurrence of GLOF will release a significant amount of water retained in a glacial lake. A large amount of water rush down to nearby streams and rivers (like the recent glacial burst

that flooded the Rishiganga river). This further gathers momentum by picking up sediments, rocks, and other materials on the way.

In conclusion, GLOF will result in large scale flooding downstream.

These GLOFs have three major characteristics. They are,

1. There will be a sudden release of water and sometimes this might be cyclic in nature.
2. GLOFs are generally rapid events. They can range from a few hours to days.
3. GLOFs result in large downstream discharges in the river. (This often depend on the amount of glacial lake size, level of the breach in the boundary of the glacial lake, etc).

### What are the possible reasons behind the Glacial burst?

Due to multiple reasons, there occurs breach of boundaries of the glacial lake. Like,

- A **build-up of water pressure or structural weakness of the boundary** due to an increase in the flow of water.
- **An earthquake** (Tectonic) or **cryoseism** (non-tectonic seismic event of the glacial cryosphere) can cause GLOF. During this, the boundary of the glacial lake will collapse suddenly and release the water of the glacial lake.
- An **avalanche of rock or heavy snow**: During this, the water in the glacial lake might be displaced by the avalanche.
- **Volcanic eruptions** under the ice can lead to GLOF. These volcanic eruptions might displace the boundary or increase the pressure on the glacial lake or both.
- **Heavy rainfall/melting of snow**: This can lead to massive displacement of water in a glacial lake.
- **Long-term dam degradation** can also cause GLOF.
- Other reasons include the collapse of an adjacent glacial lake, etc.

### Some significant glacial burst that occurred in the past:

The Glacial Lake Outburst Flood occurs all over the world **except Australia** (Glaciers are not found in Australia). **Peru and Nepal** in the past faced deadly or highly destructive glacial floods.

Dig Tsho glacial lake was present in Eastern Nepal (in a valley next to Mount Everest). In 1985 a GLOF occurred in Dig Tsho and brought out the dangerous **potential of glacial lakes nationally and internationally**. The Dig Tsho GLOF resulted in an estimated loss of US\$ 1.5 million but fortunately only 4-5 casualties.

So far 14 GLOF events have been recorded in Nepal. In another ten events, the outburst occurred in Tibet (China) but it affected Nepal.

A flood caused by a GLOF in 1941 in Peru led to the death of an estimated 1,800. This event has been described as a historic inspiration for getting into research regarding GLOF.

In India, in 1929, a GLOF occurred from the Chong Khumdan Glacier in the Karakoram. It resulted into flood in the Indus River.

### Vulnerability of Hindu Kush-Himalayan Region to Glacial Lake Outburst Flood(GLOF):

The **Hindu Kush Himalayan (HKH) region** is known as **Asia's water tower**. It has the maximum snow cover after the poles. The Hindu Kush Himalayan region sustains more than two billion people directly and indirectly.

**First**, there are numerous glaciers in the HKH region. For example, there are 8,800 glacial lakes in the Himalayas and these are spread across countries. Among these, more than 200 of these have been classified as dangerous. These glacial lakes can trigger the Glacial outburst.

**Second**, the **soil is getting loose in the HKH region**. The large human settlements and human activities have resulted in deforestation and large-scale agricultural activities in the region. This intensifies the GLOF, as there is no natural barrier to control the flood.

**Third**, the factor of **global warming and climate change**. These are one of the most important reasons for the Glacial Lake Outburst Flood. Global warming and climate change lead to **glacial retreat and glacier fragmentation** (big glaciers splitting into smaller ones). According to the **Hindu Kush Himalaya Assessment report**, even after fulfilling the commitments made under the Paris Agreement, one-third of the HKH region's glaciers would melt and will potentially destabilize the river regime in Asia.

**Fourth**, the **heat-island effect** in the HKH region. The Himalayas are getting warm faster than other mountain ranges. This is due to the increase in the use of reinforced concrete (RCC) in building construction instead of eco-friendly traditional wood and stone masonry. This adds to regional warming and increases the number of glacial lakes or the water level of glacial lakes.

**Fifth**, **tectonic activity in the region**. The Indian plate is continuously moving towards north about 2 cm every year. So the Himalayas is rising about 5 mm a year. This makes the Himalayan region geologically active and structurally unstable. Landslides and earthquakes will continue to happen in the region. This can trigger a Glacial outburst.

For example, the entire State of Uttarakhand is categorized as Zone IV (High-Risk Zone) and V (Very High-Risk zone) of the earthquake risk map of India.

#### **Way forward:**

**First**, a **long-term solution** will be feasible if **all the countries start working towards reducing global warming**.

**Second**, India needs to form **clear policy guidelines to restrict further human activities** like building roads, constructing hotels on banks, etc. Any further human activity without proper guidelines will harm the already fragile landscape.

**Third**, India needs to undertake a **cumulative assessment and strategic planning**. **Geological Survey of India** can use satellite images and technology like GIS (geographic information systems) and provide a clear analysis of the HKH region.

**Fourth**, **Capacity building of the local community** will ensure disaster mitigation in the near future.

**Fifth**, The **government has to be proactive and set up an early warning system** in the Himalayas. Like the one set up in coastal areas after the 2004 tsunami.

In conclusion, India is one of the most vulnerable countries to climate change and global warming. Even though international cooperation is required to restrict the global temperature to 1.5°C, India can move ahead and implement the suggestions. With this India can be a role model to the other countries in mitigating the disasters.

## Regulating tech giants in India- Explained

Recently Indian government issued a [notice to Twitter after](#) it restored more than 250 suspended accounts. On January 31st Twitter suspended these accounts as per the government's order. These accounts were allegedly promoting misinformation about the farmer's protests.

The tech giants with their power to influence the market, society, and governments are involved in unethical trade practices and antitrust activities all over the world. India is not an exception to them. This raises the important question to regulate tech giants in India.

### Tech giants controversial practices in India:

**First**, The photo-sharing app of Facebook (**Instagram**) went into controversy in 2020. **It failed to take any action over the controversy called Bois Locker Room** (mostly run by Indian teenagers).

**Second**, **Facebook** employees themselves are questioning the procedure and content regulation practice of Facebook's Indian team. **11 of its employees also wrote a letter to the Facebook management** about the policy head decision to allow certain posts that spread hate and racial content.

**Third**, CCI (Competition Commission of India) initiated two antitrust investigations against Google in 2020. One for **unfairly promoting its own payments app (Google Pay)**. The other for involving in anti-competitive practices by **restricting companies from creating modified versions of Android OS** for smart TVs.

**Fourth**, In 2019, the **Enforcement Directorate (E.D.)** commenced its investigation into **alleged violations by Amazon and Flipkart** for their prohibition of FDI in business-to-consumer (B2C) enterprises except where specific conditions are met.

**Fifth**, **Twitter** displayed a map of Leh as part of China and later as part of Jammu and Kashmir state (instead of a separate Union Territory). For that, a legal notice has been served to Twitter.

### Impact of Tech giants in India:

**First**, the **usage of the targeted algorithm**: tech giants are using users' search data to push advertisements to the users. The ads are specifically targeted to users based on their recent search over the internet.

**Second**, there is a **lack of transparency** in the way tech companies process user data. This has raised serious privacy concerns and also created anti-trust investigations by various governments. The Cambridge Analytica scandal of Facebook is one such example. The recent WhatsApp privacy policy also created widespread concern.

**Third**, the tech giants involved in **predatory pricing** and **monopolistic trade practices**. They usually drive out competitors using anti-competitive behaviour. For example, accusations on Amazon favouring their self-branded products over third-party products.

**Fourth**, the impact on **big tech giants on society**. The big techs are the foremost medium of **fake news, hate speech, etc.** These were seen as un-democratic activities by countries.

**Fifth**, their **potential to influence the country**. The combined market capitalization of the big techs is more than the GDP of most countries except China and the USA. The sheer economic presence and their market presence (like Google handles more than 90% of online searches) make them create aggressive clauses in their terms and conditions, contract agreements etc.

### How India is regulating big Techs?

**First**, The government enacted the **Competition Act, 2002**. The Act established the **Competition Commission of India (CCI)**. Later the Act was amended in 2007. The CCI has



been established to eliminate practices having an adverse effect on competition. The commission also promotes and sustain competition, protect the interests of consumers. The CCI will step in if any of the tech giants will get involved in the anti-competitive practice.

For example, In 2018, the **CCI concluded its investigation into Google's advertising policies**. The CCI declared that Google had abused its dominant position and involved in the anti-competitive practice. The CCI also imposed fine on Google of Rs.136 crore.

**Second, The Information and Technology Act, 2000** govern all activities related to the use of computer resources in India. Some of the important provisions of the Act are

- Section 69 of the Act gives power to the government to issue directions “to intercept, decrypt or monitor...any information generated, transmitted, received or stored” in any digital equipment.
- Section 69A of the Act provides power to the government to block access to any information generated, transmitted, received or stored or hosted in the digital space.
- Intermediaries (providers of network service, telecom service, Internet service and web hosting) are required to preserve and retain specified information. They also have to obey the directions issued by the government from time to time.
- In return intermediaries are protected from legal action for user-generated content (The big techs used this clause to move away from liability and responsibility in digital space).

#### **Challenges in regulating big techs:**

**First, smartphones and the Internet of Things (IoT)** have become a major driver for the growth of big tech companies in the last decade. India is currently witnessing a massive growth in smartphone usage and IoT. India is also witnessing increase in the population of users who are coming online for the first time. So regulating Big Techs strictly will leave the consumer with no other alternative. Hence, it is important to cater to the needs of people.

**Second, everyday life is dependent on various apps and technologies.** Nowadays technology is linked with remote working and studying, public transport, shopping, telemedicine, on-demand music, and video streaming, etc. Tech giants with their presence in digital space created a monopoly in essential services.

**Third, the essential nature of the services provided by them.** These tech giants provide Freedom of Expression to individual and also made billions of people to depend on their services. Like, Google on the internet, Amazon on e-commerce etc.

**Fourth, the challenge of cross-platform connectivity:** Users of Facebook and Google can sign in and access services over food, grocery delivery, and various other companies. This can be used to mine the accounts of users. This creates a challenge to regulate the tech giants alone. To get a proper desired output, one need to regulate the entire ecosystem. But it is not feasible.

#### **Suggestions to regulate Big Techs:**

It is essential to strengthen the Competition Law. In this regard, the Competition Law Review committee has recommended the following:

- **First, an introduction of a ‘Green Channel’:** This is to enable fast-paced regulatory approvals for the vast majority of mergers and acquisitions that have no concerns regarding adverse effects on competition.
- **Second, introducing a dedicated bench in NCLAT** (National Company Law Appellate Tribunal) to hear appeals under the Competition Act.
- **Third, opening up of CCI offices at the regional level:** This will help to carry out non-adjudicatory functions and interaction with State Governments in controlling the Big Techs.

Recently in the US also House of Representatives panel submitted the report of a bipartisan investigation into the working of Big Techs. They recommended,

- **First**, the **Structural separations of the big techs**: By breaking big tech's companies into many smaller ones. This will reduce their undue influence over the digital market space.
- **Second**, to **prohibit mergers and acquisitions**: putting a "presumptive prohibition" against big tech companies.
- **Third**, **companies should be prohibited** from operating in an "**adjacent line of business**".

Considering the size of the Indian economy which is in the top five Economies of the World, controlling Big Tech is the key to ensure fair competition. The need of the hour is the passage of the Personal Data Protection Bill along with the incorporation of the recommendations of the Competition Law Review Committee and exploring the possibility of implementing the US House of Representatives panel's report.

## Strategic Disinvestment Policy: Issues and Challenges – Explained

COVID-19 pandemic has hit the Indian economy very hard. At once, due to lockdowns, Indian economy was dried out of funds. Economic activities got reduced drastically. At present, the Indian economy is in urgent need of a revenue stream so that all activities can go back to normal.

Government expenditure was expected to help the economy out, just like it did during the 2008 financial crisis. However, all these factors have also reduced the revenue and capital receipts of the government.

Now, the government has announced a large-scale monetization of government sector assets. It includes the sale of vast tracts of land and disinvestment receipts of ₹1.75-lakh crore.

### Government Policy for strategic disinvestment

During Union Budget 2020-21 presentation, Government announced a new **policy** for **strategic disinvestment** of public sector enterprises. It will provide a clear roadmap for disinvestment in all non-strategic and strategic sectors. The government has aimed to receive **Rs. 1,75,000 crore from disinvestment** in BE 2020-21.

1. The policy will cover existing Central Public Sector Enterprises (CPSEs), Public Sector Banks, and Public Sector Insurance Companies.
2. The government has classified the public sector under 2 categories: 1. Strategic Sector and 2. Non- strategic sector.
3. In Non-strategic sectors, the government will exit from all businesses. It will keep only a 'bare minimum' presence in four broad strategic sectors, i.e.
  1. Atomic energy, Space and Defence
  2. Transport and Telecommunications
  3. Power, Petroleum, Coal, and other minerals
  4. Banking, Insurance, and financial services
4. The government will incentivize States for disinvestment of their Public Sector Companies. An **incentive package** of **Central Funds** for states will encourage them to do so.

The new disinvestment policy goes further than the past case-by-case approach and straight away allows the sale or closure of nearly 151 PSUs (83 holding companies and 68 subsidiaries) in non-strategic sectors.

Other than that, Government will monetize the surplus land with Government Ministries/Departments and Public Sector Enterprises. A **Special Purpose Vehicle** will be created in the form of a **company** to carry out **monetization**.

### What is Disinvestment?

- **Disinvestment means** the sale or liquidation of assets by the government. It usually consists of Central and state public sector enterprises, projects, or other fixed assets.
- The **government undertakes disinvestment to** reduce the fiscal burden on the exchequer. It raises money for meeting specific needs, such as to bridge the revenue shortfall from other regular sources.
- **Strategic disinvestment is** the transfer of the ownership and control of a public sector entity to some other entity (mostly to a private sector entity).
- The disinvestment commission defines strategic sale as **the sale of a substantial portion i.e. 50%, or higher percentage of the Government shareholding** in a central public sector enterprise (CPSE). It also involves a transfer of management control.
- **National Investment Fund (NIF)** was constituted in November 2005. In this fund, the proceeds from the disinvestment of Central Public Sector Enterprises were to be channelized.

**Need of disinvestment**

1. Under the aegis of the Atmanirbhar Bharat Mission, the rationalization of the participation of the CPSEs in commercial activities has been proposed.
2. As per the experts, the involvement of the government should only be limited to 'strategic sectors'. So that it can develop these crucial sectors of the economy with its full energy.
3. This will encourage healthy competition in the non-strategic corporate sector. It will lead to an increase in their efficiency under the pressure of competition.
4. Selling the non-productive companies will provide the government with non-debt revenue in this time of fund crunch. Moreover, it will increase the efficiency of the government investments in the Public sector.

**Performance of disinvestment in the recent scenario:**

- According to the Department of Investment and Public Asset Management (DIPAM), between 2004-05 to 2013-14, disinvestment raised Rs. 1.07 lakh crore, on an average yearly collection of Rs. 10,700 crores.
- However, from 2014-15 to 2017-18, the collection went up to Rs. 2.12 lakh crore, i.e., a yearly collection of Rs. 53,000 crores.
- The government has exceeded the target of Rs. 1 lakh crore in 2017-18 and Rs. 80,000 crores in 2018-19.
- The success of **BHARAT-22 Exchange Traded Funds (ETF)** takes government closer to the disinvestment target. The ETF is a benchmark to an index named BHARAT22 consisting of 22 companies (19 PSEs and 3 private).
- However, in 2020-21 due to the COVID-19 pandemic, the disinvestment process was hindered in between. It could only gather disinvestment revenues of Rs 31,000 crore against a target of Rs 2.1 lakh crore.

**Challenges of disinvestment policy:**

**First**, the Sale of profit-making and dividend-paying PSUs would result in the **loss of regular income to the Government**. It has become just a resource raising exercise by the government. There is no emphasize on reforming PSUs.

**Second**, the valuation of shares has been affected by the government's decision not to reduce government holdings below 51 percent. With the continuing majority ownership of the government, the public enterprises would continue to operate with the earlier culture of inefficiency.

**Third**, Government is **not willing to give up its control** even after strategic disinvestment. It is evident from the budget speech of 2019-20 by the Finance Minister. She stated that government is willing to change the extant policy of government. It will change the policy of "directly" holding 51 percent or above in a CPSU to one whereby it's total holding, "direct" plus "indirect", is maintained at 51 percent. It means government will still exercise its control over PSUs.

**Fourth**, The process of disinvestment is **suffering from bureaucratic control**. Almost all processes starting from conception to the selection of bidders are suffering due to it. Moreover, bureaucrats are reluctant to take timely decisions in the fear of prosecution after retirement.

**Fifth**, Strategic Disinvestment of Oil PSUs is seen by some experts as a threat to **National Security**. Oil is a strategic natural resource and possible ownership in the foreign hand is not consistent with our strategic goals. For example, disinvesting Bharat Petroleum Corporation Limited (BPCL).

**Sixth**, Loss-making units **don't attract investment so easily**. It depends upon the perception of investors about the PSU being offered. This perception becomes more important in the case of strategic sales, where the amount of investment is very high.

**Seventh**, Complete Privatization may result in public monopolies becoming **private monopolies**, which would then exploit their position to increase costs of various services and earn higher profits

**Eighth**, using funds from disinvestment to bridge the fiscal deficit is an unhealthy and short-term practice. It is said that it is the equivalent of selling **'family silver'** to meet short term monetary requirements.

### Way forward

Disinvestment and rationalization of some CPSEs are being planned. But there is also a need to strengthen the sectors retained by the government to fully meet the expectations.

For strengthening them, the government should take steps to completely revamp the Boards of the CPSEs and reorganize their structure.

The government should increase the operational autonomy in CPSEs. It can be supplemented by strong governance measures like listing on stock exchanges. It will increase the transparency in their performance.

The government must also try to provide the bidders with a fair valuation of the PSUs. It will boost their confidence in the disinvestment process.

The government should also avoid its involvement by any means in the management of operations of PSUs, after its strategic sale. Otherwise in the long run, it would discourage the buyers from investing in them.

Some steps taken by the Department of Public Enterprises will improve the performance of CPSEs. These are:

1. The performance monitoring system of the CPSEs has been reformed.
2. It has also improved the process of timely closure of sick and loss-making CPSEs and disposal of their assets.

## Medical Termination of Pregnancy (Amendment) Bill, 2020 – Explained

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- [What is the Medical Termination of Pregnancy \(MTP\) Act 1971?](#)
- [Need for the Amendment](#)
- [Salient provisions of MTP Amendment Bill 2020](#)
- [Advantages of the proposed Bill](#)
- [What are the challenges associated with the present Bill?](#)
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Recently Medical Termination of Pregnancy (Amendment) Bill 2020 is scheduled to be tabled in Rajya Sabha. The MTP bill was passed in Lok Sabha last year. The bill aims to strengthen the abortion rights of women from the earlier Medical Termination of Pregnancy Act 1971. But the bill has certain important challenges associated with it, preventing it to become a comprehensive legislation.

### What is the Medical Termination of Pregnancy (MTP) Act 1971?

The Act defines the conditions on which the termination of pregnancy can be made, and the qualified persons to perform the same. The Act aims to reduce the maternal mortality ratio due to unsafe abortions in India.

The act allows a woman to terminate her pregnancy within the first 12 weeks of pregnancy. After consulting an RMP (registered medical practitioner) woman can terminate her pregnancy.

If the women want to terminate her pregnancy between 12-20 weeks, she needs to get an opinion from 2 RMPs. The Medical practitioners have to ascertain that continuance of the pregnancy would **risk the life of the pregnant woman or** substantial risk (Physical or mental abnormalities) to the **child** if it is born.

### Need for the Amendment:

**First**, the present abortion law is five decades old. The law permits abortion up to a maximum foetal gestation period of 20 weeks only. **This denies reproductive rights to women.** (Abortion is one of the important aspects of women's reproductive health).

**Second**, currently, if a woman wants to terminate the pregnancy beyond 20 weeks, she has to follow legal procedure. The slow judicial process in India force woman to take **illegal means to terminate the pregnancy.** **India Journal of Medical Ethics report** in 2015 mentioned **unsafe abortions were leading to 10-13% of maternal deaths in India.** This makes unsafe abortions as the **third-highest cause of maternal death.**

**Third**, the advancement of science. **After the 20<sup>th</sup> week**, many **foetal abnormalities can be detected** using techniques like Ultrasonography. As the current law limit the time to 20 weeks, it can cause trouble to the mother as well as children in the near future. Hence, its extension is much needed.

**Fourth, International practice:** 52 % of global countries including the UK, Ethiopia, Austria, Spain, Italy, France allow termination of pregnancy beyond 20 weeks if there are any foetal abnormalities. 23 countries including Germany, Canada, Vietnam allow termination of pregnancy at any time based on the request of the mother.

### Salient provisions of MTP Amendment Bill 2020:

First, the Bill **extends the upper limit for permitting abortions from the current 20 weeks to 24 under special circumstances.** This is applicable to a **“special category of women”**. Victims of abuse, rape survivors, the differently-abled, and minors fall under this category.

**Second**, the Bill proposes the requirement of the opinion of one **registered medical practitioner (RMP) for termination** of pregnancy up to 20 weeks of gestation.

**Third**, the Bill provides for **two RMPs opinions for termination of pregnancy between 20 and 24 weeks**.

**Fourth**, Bill **constitutes a Medical Board**. Every state government has to constitute a medical board. These medical boards will diagnose pregnant women for substantial foetal abnormalities. **If any such substantial foetal abnormalities** get detected then the **termination** of pregnancy can be done even after 24 weeks of gestation (no upper limit for the termination of pregnancy in this case).

The Medical Boards will consist of the following members:

1. a gynecologist,
2. a pediatrician,
3. a radiologist or sonologist,
4. any other number of members, as may be notified by the state government.

**Fifth**, Bill **protects the privacy of a woman**. No RMP can reveal the name and other particulars of a woman who performs the abortion. However, RMP can reveal the identity to a person authorised by law. The violation of this provision is punishable with imprisonment up to one year, or a fine, or both.

#### **Advantages of the proposed Bill:**

**First**, the Bill raises the **foetal gestation period** for termination of pregnancy **beyond 20 weeks**. The MTP Bill also includes a **special category of women**. In short, the bill enables access to safe abortion and curb illegal abortion practices.

**Second**, the 1971 MTP Act states that, if a **minor** wants to terminate her pregnancy, the guardian has to provide written consent. The proposed bill has excluded this provision.

**Third**, the Bill will **strengthen the reproductive rights of women**. The Supreme Court in *Mrs X v. Union of India, 2017 case* has recognised women's right to make reproductive choices and their decision to abort as a dimension of their personal liberty. The court also mentioned abortion primarily fall within the Right to Privacy.

**Fourth**, the Bill will **reduce the burden on the Judiciary**. At present, there are many cases registered in court seeking permission for abortion beyond 20 weeks. Meanwhile, with the establishment of the Medical Board, the burden on the judiciary will reduce.

#### **What are the challenges associated with the present Bill?**

**First**, the **constitution of the Medical board**. The constitution of the medical board presents a variety of challenges such as

1. The present **healthcare budgetary allocation** (1.5% of GDP) makes setting up a board across the country, both financially and practically impossible.
2. Apart from that, even if it is set up, **access to the board** by pregnant women in remote areas of the state is a matter of concern.
3. No time limit is set for the board to respond to the requests.
4. The board subject women to multiple examinations before allowing her to terminate her pregnancy. This is a **violation of rights to privacy** and dignity.
5. **Personal beliefs could impact** the medical board's opinion. For example, Madhya Pradesh High Court denied terminating the pregnancy of 13-year-old rape survivor only because a psychiatrist on the medical board had not supported her abortion.

**Second**, the amendments continue the **patriarchal population control legacy**. The bill does not give women control over their own bodies. It requires the medical practitioner's opinion and not the request or will of pregnant women alone.

**Third**, the current **bill does not consider** a few important things in the termination of pregnancy. Such as **personal choice, a sudden change in circumstances** (due to separation from or death of a partner), and **domestic violence**.

**Fourth**, the amendment also fails to consider the abortion rights of intersex, transgender, and gender diverse persons.

**Suggestions:**

**First**, the government needs to amend the bill to include a few changes in the Medical Board.

1. The government has to specify a time limit for the board.
2. The government have to consider the majority of opinion of the board members to avoid personal belief's interfering with the board opinions.

**Second**, the government has to introduce **personal choice, a sudden change in circumstances**, and **domestic violence** as a criterion. Apart from that, the bill must include abortion among intersex, transgender, and gender diverse persons.

**Third**, the government might include a provision of will to terminate the pregnancy at an early stage within 20 weeks without the opinion of RMP. On the other hand, the government also have to release clear guidelines to restrict,

- Women performing abortions to **prefer a male child**
- Women performing abortions due to family pressures etc.

In conclusion, the MTP bill 2020 is a step in the right direction to ensure access to safe and legal abortion. But, it falls a few steps behind in terms of ensuring **dignity, autonomy and justice for women**. This can be done by including the necessary suggestions under the Act.



## Issue of Digital Services Tax between India and US – Explained

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- [What is Digital Services Tax \(DST\)?](#)
- [Why India introduced the Digital Service Tax?](#)
- [What are the accusations mentioned by the US? What India said in reply?](#)
- [What are the concerns associated with DST?](#)
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Recently the U.S. determined India's Digital Services Tax (DST) as discriminatory. It concluded that the DST is causing an adverse impact on American commerce and hence, an action needs to be taken under trade act. Meanwhile, [The USTR](#) also said, "DST by its structure and operation discriminates against U.S. digital companies". But the USTR in its **special 301 report** missed few important aspects and also completely neglected the global need to tax digital services.

### What is Digital Services Tax (DST)?

In 2016 India introduced a 6% equalisation levy. But the levy was restricted to online advertisement services (commonly known as "**digital advertising taxes**" or DATs). In simple terms, the levy applied on the payments made to a non-resident by the Indians for advertising on their platform.

The government in 2020 introduced an amendment to the equalisation levy in the Finance Bill 2020-21. The important amendments include,

- A **2% Digital Service Tax (DST)** was imposed on non-resident, digital service providers. With this amendment, the **foreign digital service providers** have to pay their fair share of **tax on revenues generated in the Indian digital market**.
- The amendment **widens the tax to include a range of digital services**. These services include digital platform services, software as a service, data-related services, and several other categories including e-commerce operations.
- Companies with a turnover of more than Rs. 2 crores, will pay this tax.

### Why India introduced the Digital Service Tax?

**First**, the **nature of digital service companies**. These companies don't have any physical presence in the markets. Instead, they use intangibles to provide services. For example, one can pay for the Amazon Prime membership in India. But the services of prime membership like watching movies, listening to songs are intangible.

Determining the value of these intangibles is tough. So the government introduced the Digital Service Tax of 2% on non-resident service provider's revenue in India.

**Second**, the **failure of international consensus**. In 2013, the OECD (Organisation for Economic Co-operation and Development) launched the Base Erosion and Profit Shifting (BEPS) programme. It was launched primarily to find a way to tax digital companies. But no consensus has been achieved yet. So, in 2016 India became the first country to implement the equalisation levy as a temporary way of taxation. This is then followed by countries like France, UK, etc.

**Third**, India's **right to tax** digital service providers. If a company has users in India and also has an economic connection with India then, India has the right to tax its economic operation. India being a developing country provides large markets for digital corporations. So taxing them is a matter of right.

**Fourth**, These DST create a level playing field between online and regular (brick and mortar businesses). In 2016, **the Akhilesh Ranjan Committee Report** had also suggested to tax the digital companies as they enjoy a sustainable economic presence.

**What are the accusations mentioned by the US? What India said in reply?**

**The first accusation**, DST is inconsistent with the principles of international taxation. International taxation laws apply to the revenue of companies (not on income), extraterritorial application of DST (Digital service companies present outside India), etc.

- **Indian reply:** Several global tax measures like royalty, technical fees are not levied on revenue. Similarly, all US states have laws on remote sellers, and they tax non-US resident entities.

**The second accusation**, DST does not extend to identical services provided by non-digital service providers. This is a violation of trade practices.

- **Indian reply:** When the company is non-digital (i.e., brick and mortar) then that company is subject to **Indian income tax**. Further, this DST has been introduced to provide a level-playing field.

**The third accusation**, DST is discriminatory because it targets US companies.

- **Indian reply:** The DST is applicable to all digital service providers having an annual turnover of more than ₹2 crores in India-based digital services. As per USTR's own analysis, only 119 companies in the world would likely be subject to the DST, of which 86 are U.S. companies. So the criteria do not target anyone. It is the result of the asymmetric digital power of US companies.

**Concerns associated with DST:**

**First**, the DST as a **tax policy targets a single sector** (digital services). Economic experts argue that framing a tax policy to **target a particular sector** is unfair and have disastrous consequences for the growth of that sector.

**Second**, digital service providers **might pass on the tax to consumers. Ultimately, burdening consumers.** Just like service tax passed on to consumers, DST can also pass on to consumers if the service provider wishes.

**Third, not feasible to separate the digital economy and the global economy.** The growing digitization has blurred the line between them. This is one of the prime reasons due to which OECD is unable to arrive at a consensus.

**Fourth**, the DST might attract **Retaliatory Tariffs**. The USTR investigations pose a threat of retaliatory tariffs and might trigger the trade war between India and the US. Even the slightest retaliatory tariff will affect the Indian ICT industry's growth.

**Suggestions:**

**First**, India can follow the U.K. model of DST. The major advantages of the U.K. model are,

- The U.K. allows companies to not pay any tax if their net operating margin is negative. By including this, India can avoid criticisms like India's equalization levy is on revenue and shift towards the profit of the company.
- India can consider taxing only 50% of the revenues from the transactions involving three jurisdictions. For example, an Australian user located in India receiving services from a U.S. company. This will make Indian DST more inclusive and also garners international support.

**Second**, India has to remain committed to the OECD process. Apart from that, India can mention the ways to tweak DST design or try to achieve consensus. This will make India move ahead and phase out DST and roll out the new agreed tax policy of OECD.

**Third**, the U.S. government has to realize the challenges in taxing digital service providers and also have to participate in these global talks. This will not be only beneficial for other countries but also a way to make these digital giants accountable.

More than 24 countries have either adopted or are considering adopting, a DST or a DAT after the concept got introduced in India. So the tax challenges posed by the digital economy is not a problem between India and the US. It is a global problem and the US has to accept this and act accordingly.

## Disengagement agreement at Pangong Tso Lake – Explained

### Table of contents

- **Background**
- **What are the important points of the agreement?**
- **What are the reasons leading to the present agreement?**
- **Concerns with the disengagement agreement**
- **Suggestions to improve the disengagement**

Recently, a military [disengagement agreement signed](#) between India and China. This is the first major breakthrough to resolve the **nine-month-long military stand-off** along the Line of Actual Control (LAC) in Ladakh. Both the Chinese and Indian troops present on the south and north of [Pangong Tso lake](#) already started a **“synchronized and organized disengagement”**.

### Background:

- Line of Actual Control is the disputed boundary between India and China. LAC is divided into three sectors: western, middle, and eastern.
- **Both countries disagree on the actual location of the LAC.** India claims that the LAC is 3,488 km long. But the Chinese believe it is around 2,000 km only.
- LAC mostly passes on the land, but in [Pangong Tso lake](#), LAC passes through the water as well.
- The contested area of the lake is divided into 8 Fingers.
- Chinese contested that the LAC is at finger 4. But, India’s perceived LAC (Line of Actual Control) is at finger 8. This led to frequent disputes in the area.
- Previously India patrolled on foot up to Finger 8. But there is no motorable road access from India’s side to the areas east of Finger 4.
- China on the other hand already built a road on their side and dominated up to Finger 4.



- The recent (in May 2020) standoff on North and South bank of the lake is one such dispute.
- During the stand-off, Chinese troops marched to the ridgeline of finger 3 and 4. Indian forces were forced to stay within finger 3.
- But, in August 2020, India obtained **some strategic advantages** in the region by occupying certain peaks in the Kailash ranges. After that, Indian troops started positioning in Magar Hill, Mukhpari, Gurung Hill, etc. This pressurized China to enter into a negotiation.
- Later, India and China finally reached to an agreement on disengagement at Pangong Lake.
- The agreement was reached in the **9th corps commander meeting** held on 24th January 2021.

#### What are the important points of agreement?

1. The agreement calls for **disengagement along the Pangong Tso region**. It includes the pulling of tanks and troops from both sides.
2. The troops will return to pre standoff position in a gradual manner on the north and south banks of the lake.
3. In the north bank, **China will pull back to finger 8** and **India will get back** to its Dhan Singh Thapa post **near finger 3**.
4. The area between finger 3 and 8 will become a **no patrolling zone** for a temporary period.
5. All the **construction** done after April 2020 will be **removed** by both sides
6. Negotiation of the agreement through military and diplomatic discussions will take place to decide the patrolling on the area between finger 3 and 8.

#### What are the reasons leading to the present agreement?

**First**, India's **strategic advantage and ability to remain strong**. China started the standoff in March and soon captured Finger 4 area. Chinese thought that they were in an advantageous position both militarily and strategically as compared to India (As the move coincides with COVID pandemic). China never expected such prolonged opposition from India. But India achieved this, which resulted into the agreement.

**Second**, there is also a climatic reason for it. The icy-cold winter in Ladakh with temperature as low as minus 20 degrees Celsius forced China for an agreement. Chinese forces are not habituated to such extreme temperature. For example, 10,000 troops from the Western Theatre Command (WTC) had moved to lower locations due to fatigue and other complications in January.

**Third, sensible diplomacy of India**. India handled the pressure from China very well. For example, handling the Chinese provoking tactics, India did not turn out aggressive at any point of dispute. All these along with India's diplomatic will to ban Chinese apps **forced China to engage in talks**.

**Fourth, International Pressure on China**. China's image in the international arena got deteriorated due to various reasons like

- China's opaque way of handling COVID outbreak
- The way China forces its maritime neighbours in the South China Sea.

All these forces along with the standoff deteriorated China's image. With the nations recovering from COVID pandemic, China wanted to create a positive image (as Chinese manufactured goods need markets). So China agreed to disengagement.

**Fifth, New Biden-Harris alliance** in the US promised greater stability in the South China Sea region. China cannot afford a conflict on its two fronts (East – South China Sea dispute, West – India – China standoff). So China agreed to return to pre-stand off position.

**Concerns with the disengagement agreement:**

**First**, there is a **lack of trust** amongst the countries. This restricts them from the attainment of lasting peace in the region.

**Second, Ambiguity with respect to China's intent.** Even the US warned India to remain vigilant in disengagement.

**Third**, there is still a **higher probability of escalation of violence** in the region. For example, **clashes in Galwan Valley** started when the troops were pulling back in June last year.

**Fourth**, Pangong Tso is just one point of friction. **Focus on other areas is also required.** Else the efficacy of this disengagement is also at risk. The other areas include,

1. **Gogra Post** at Patrolling Point 17A (PP17A)
2. **Hot Springs area** near PP15
3. PP14 in **Galwan Valley**
4. **Depsang Plains**, which is close to India's strategic Daulat Beg Oldie base

According to the present agreement, the discussion on Gogra Post and Hot Springs area will take place 48 hours after the disengagement at Pangong Tso Lake will complete.

**Fifth**, there is also an accusation on India for getting into agreement despite being in a dominant position. They are,

1. Prior to the standoff, Finger 4 belonged to Indian territory. But in the agreement, India agreed to move to Finger 3 and not to stay on Finger 4.
2. Indian troops, after capturing Kailash ranges are now moving back.

But one has to realize following points,

1. China moving back to Finger 8 after capturing Finger 4.
2. Focus on long term solution instead of the short term needs.
3. Falling behind itself is like a defeat to China considering its military potential.
4. The area between finger 3 to finger 8 is currently under negotiation.

**Suggestions to improve the disengagement:**

**First**, The immediate focus should be on the **disengagement and gradual withdrawal in the entire region** along with the proper implementation of Pangong Tso disengagement agreement.

**Second**, Both countries can **reach a diplomatic solution** like the **creation of buffer zones or demilitarized zone** in disputed areas. As the next step of the solution, they can also create further improvements. Such as **Neither side** will deploy/patrol/develop infrastructure in the buffer zone or permitting joint patrolling of troops.

**Third**, **Both** the countries should **sign an agreement** to resolve the conflict in the long run by,

1. Accepting and respecting the LAC by both the parties.
2. Neither party should attempt to change the status quo unilaterally.
3. Both parties should adhere to all the agreements.

Despite the Chinese agreement India always has to remain cautious of earlier Chinese aggressions such as non-adherence to the principles, frequent violation in the region, creating infrastructure in disputed areas, etc. Once the disengagement is done India will have to keep the momentum and move ahead to resolve all the boundary conflicts. That is the only solution beneficial for both the countries.

## Link between Dam and Natural disasters – Explained Pointwise

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3. [Dams aided disasters in the past](#)
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6. [Suggestions to make dams disaster-resilient](#)

Rishiganga dam in Uttarakhand was recently destroyed by the [Glacial Lake Outburst Flood](#) and intensified the GLOF in the region. This is not the first time a Dam is aiding and intensifying the disaster in India. It can be a potential hazard to both human life and the environment. This raises a larger question on the net benefit of big dams.

### What is Dam?

It is a structure built across a stream or river to hold back water. There are many reasons to build a dam. Such as,

1. Generation of hydropower
2. Reducing the run-off water from a river to sea
3. Fulfill the drinking, irrigation, and industrial needs of water
4. Reduce floods in the area
5. Provide inland navigation, etc.

### How dams are aiding disasters?

Dams were built to provide benefits to human. But many times instead of providing benefits, dams are harming the region by aiding a disaster. The reasons are:

1. **Dams as a hydropower plant:** Construction of hydro-power plant requires diversion of rivers through tunnels to generate power. The construction of these tunnels **unsettles the mountainous terrain by displacing the supportive sediment**. It results in the slipping down of rocks due to the removal of their support system (Landslides).
2. **Dams as a reason for frequent floods:** Due to poor maintenance, siltation, etc. dams are not able to hold adequate water. This is responsible for the increasing frequency of floods in India.
3. **Dam as a solution to prevent/divert large run-off water:** To protect the river run-off, many bigger dams have been constructed in highly vulnerable locations, like the Himalayas. **For example**, the entire state of Uttarakhand is vulnerable to earthquakes, but there are large dams planned in the fragile region that disturb the ecosystem. Dams in these locations aggravate the natural disaster.
4. **Dams as a reason for an earthquake:** When a large quantity of water is loaded and unloaded frequently in the region, it might lead to **reservoir induced seismicity**. For example, Koyna earthquake of December 1967.

All these reasons lead to **dam failure**. This is then followed by a large-scale release of water, downstream of the river and creating floods. This will create economical, infrastructural, environmental, and livelihood losses.

### Dams aided disasters in the past:

1. **The worst dam disaster** in India was the Machu dam failure (Gujarat) in 1979. The **torrential rainfall** in the area created a large scale flood and a failure in the dam. According to the official estimates, around 2000 people had lost their lives.

2. In August 2018 **Kerala witnessed its worst floods since 1924** due to the torrential rainfall. Too much water stored in the dam aggravated the disaster. At least 35 of 50 large dams had been opened for releasing water in to the already flooded areas. The flood took the lives of around 503 people in the state.
3. Similarly, in **2019** heavy rain caused a breach in Tiwre dam (Maharashtra). This led to the flooding of seven villages and 20 people swept away.
4. Most recently, a Glacial Lake Outburst Flood destroyed the Rishiganga dam. This led to a large surge of water downstream which breached the [Tapovan Hydropower Plant](#).

#### Vulnerability of Indian dams:

1. **India has more old dams.** India in total has 5,745 reservoirs in the country, of which, 293 are more than 100 years old. The age of 25% of the dams is between 50 and 100 years and the remaining 80% are over 25 years old. Ageing dams face the following issues,
  1. Differential settlement of foundation in the dam,
  2. Clogging of filters, increase of uplift pressures,
  3. Cracks in the dam core,
  4. Loss of bond between the concrete structure and embankment,
  5. Reduction in slope stability in earthen and rockfill dams,
  6. Erosion of earthen slopes,
  7. Deformation of the dam body itself. All these aids the intensification of any disaster.
2. Many dams have **structural deficiencies and shortcomings in operation and monitoring** facilities. Few dams not even meet the present safety standards on structural and hydrological conditions.
3. Many states are **not providing sufficient budgets for the maintenance and repair** of the dam. There is also a **lack of institutional and technical capacities** for addressing dam safety issues. For example, According to Central Water Commission data, **“Not even a single dam in Kerala was inspected before monsoon during Kerala floods”**.
4. **The current legal framework does not have any provision for penalizing** the person/trust/state responsible for dam failure.
5. **Real-time inflow forecasting systems** are not in place even in important reservoirs. This creates vulnerability to dam safety and dam operation.

#### Government Initiatives to improve dam safety:

1. **Dam Rehabilitation and Improvement Project (DRIP)**
  - It is a World Bank assisted project. The project aims to improve the safety and operational performance of selected existing dams and associated appurtenances sustainably.
  - Ministry of Water Resources, River Development & Ganga Rejuvenation through the Central Water Commission, is implementing the project.
2. **Dam Safety Bill, 2019.**
  - The Bill provides for proper surveillance, operation, inspection, and maintenance of all specified dams in the country.
  - The Bill aims to constitute the **National Committee on Dam Safety**. The committee shall suggest dam safety policies and also recommend any necessary regulations.
  - The Bill also establishes the **National Dam Safety Authority**. The NDSA is a regulatory body that discharges functions to implement the policy, guidelines, and standards in the country.
  - The Bill also provides for the constitution of a State-level Committee on Dam Safety by State Governments.
3. **Dam Health And Rehabilitation Monitoring Application (DHARMA)**

- It is a web-based software package. It supports the effective collection and management of Dam Safety data in **all large dams** of India.
  - The major aim of DHARMA is to **digitize all dam related data**.
4. **Seismic Hazard Assessment Information System (SHAISYS)** for mapping **Seismic Hazards**.
- It is an application tool (currently under development) of CWC (Central Water Commission). The tool will estimate the seismic hazard of the Indian region at any given time. This will aid in dam water management.

**Suggestions to make dams disaster-resilient:**

1. State governments should strictly follow **the dam safety manual**.
2. **Creation of the buffer zone:** States have to ensure that there is no encroachment in the nearby area.
3. Need to **integrate urban-rural planning with dam safety**. Since India is a populous country, it is impossible to shift people during calamities. Proper dissemination of information on a real-time basis and regular flushing of water has to be carried out downstream to keep the river beds dry. This can be done only through an integrated approach.
4. A Standing Committee recommended a **penal provision for dam failures on authorities**. The government has to incorporate this into law. Along with that, the government has to **increase the capacity building of locals and associated institutions**.
5. The government has to create a **well-planned monitoring system using modern instruments**. This is the key to the early detection of defects and averts disasters.

The government must consider the issue holistically and avoid building large dams for political gains in fragile regions. The construction of a dam is not a disaster, but the mismanagement and poor planning of the dam is a disaster which affects all of us in a severe manner. It is a high time for the government to understand this.