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for

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1. GST Compensation in India

- Origin of Tax Devolution in India
- Idea of GST
- What is CGST,SGST,IGST
- GST Compensation
- Demerit Goods
- Revenue Neutral Rate
- Present Challenges
- Way Forward

What is the News?

- The distribution of GST proceeds has triggered a new flashpoint in Centre-state relations amid fresh indications of delayed compensation payments and dues to the states.

Let us start with a Question

1. Choose the correct statements:

1. The Government of India Act, 1919, which was enacted as a result of the Montague-Chelmsford Report provided for devolution rules for taxation.
 2. GST system came into effect through the implementation of the One Hundred and First Amendment of the Constitution of India by the Indian government.
- A. Only 1
B. Only 2
C. Both 1 and 2
D. Neither 1 nor 2

Origin of devolution of tax in India

- The Government of India Act, 1919, which was enacted as a result of the Montague-Chelmsford Report, for the first time, provided for devolution rules.
- The devolution of resources was criticized by the provinces as they were inadequate to meet their needs.
- Soon, expert studies followed, which were incorporated in the Government of India Act, 1935.
- This 1935 Act, which was indeed used as a template for the constitution, provided for four modes of taxes:
 - ✓ Levied and collected by the Federal Government;
 - ✓ Levied and collected by the provinces;
 - ✓ Levied by the Federal Government but shared with provinces; and

✓ Levied by the Federal Government but collected and retained by the provinces.

- At the time of drafting of the constitution, an Expert Committee headed by Nalini Ranjan Sarkar was asked to study the provisions of the 1935 Act and make recommendations relating to taxation and borrowing powers of the states.
- While acknowledging the need to provide adequate resources to the states without placing too much strain on the Union, the Expert Committee recommended setting up of a Finance Commission, an independent body, to devise the allocation of shareable taxes between the Union and the states.
- The Finance Commission, set up under Article 280 of the constitution, has been bestowed with the exclusive power to make recommendations to the president as to the distribution between the Union and the states of the net proceeds of taxes which are to be, or may be, divided between them and the allocation between the states of respective shares of such proceeds.
- The states obeyed and took home whatever the Finance Commission allocated.
- Finally GST came into effect from 1 July 2017 through the implementation of the One Hundred and First Amendment of the Constitution of India by the Indian government

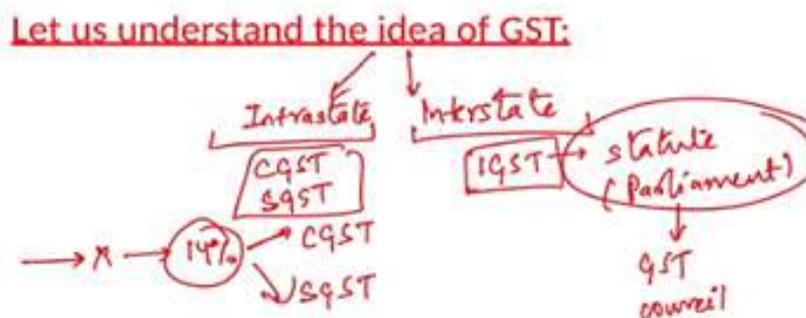
What is Goods and Services Tax?

- Goods and Services Tax (GST) is an indirect tax (or consumption tax) used in India on the supply of goods and services.
- The GST is paid by consumers, but it is remitted to the government by the businesses selling the goods and services.

What seems to be the Major Issue?

- Since GST is a destination based tax, an end user consuming any goods or services is liable to pay the Goods and Services Tax.
- The tax is received by the State in which the goods or services are consumed and not by the state in which such goods are manufactured.

Let us understand the idea of GST



What determines if CGST, SGST or IGST is applicable?

- Intra-State supply of goods or services is when the location of the supplier and the place of supply i.e., location of the buyer are in the same state. In Intra-State transactions, a seller has to collect both CGST and SGST from the buyer. The CGST gets deposited with Central Government and SGST gets deposited with State Government.

- Inter-State supply of goods or services is when the location of the supplier and the place of supply are in different states. Also, in cases of export or import of goods or services or when the supply of goods or services is made to or by a SEZ unit, the transaction is assumed to be Inter-State. In an Inter-State transaction, a seller has to collect IGST from the buyer

Why GST compensation?

- While implementing the GST in 2017, a major concern of the state governments was the possibility of revenue loss.
- Several states argued for compensation from the centre if the revenue from GST to them falls than that of the estimated level.
- The centre initially resisted to compensation but later agreed for the first five years.

What is the purpose of the compensation?

- Main purpose of the compensation clause was to incentivise states to accept and implement the GST.
- States have to give up the control over their major tax revenues including the state sales tax that are to be merged under GST. Effectively, states had given up their power to impose and collect taxes on goods.
- Hence, assuring no revenue loss after the implementation of GST became important.

What is the statute for GST Compensation?

- GST Compensation clause was inserted under the GST Act.
- As per the provisions of Section 7 of the GST (Compensation to States) Act, 2017, loss of revenue to the States on account of implementation of Goods and Services Tax shall be payable during transition period of 5 years.
- The compensation payable to a State shall be provisionally calculated and released at the end of every two months during transition period of 5 years.

How GST compensation revenue is obtained?

- To avail the revenues for GST compensation, the centre has imposed a cess on specific products especially, those considered to be 'sin' or luxury goods. So, there is a GST compensation cess on these items.
- GST Compensation Cess is imposed as a levy in addition to the regular GST taxes. The cess is imposed on the supply of certain luxurious and demerit goods and services that attract 28 per cent GST.
- The cess rate usually ranges from 1% to 25% and is levied over and above the GST rate.

Which items attracts GST Compensation Cess?

- The main items that attract the cess are:
 - ✓ Pan Masala
 - ✓ Aerated waters
 - ✓ Tobacco and tobacco products
 - ✓ Coal, briquettes and solid fuels made from coal or ignite



- ✓ Motor cars and other motor vehicles
- ✓ Any other supplies as notified from time to time.

2 Important Terms

- Demerit goods
- Revenue Neutral Rates

Demerit Goods

- A demerit good is defined as a good which can have a negative impact on the consumer – but these damaging effects may be unknown or ignored by the consumer.
- Examples of demerit goods include tobacco, alcoholic beverages, recreational drugs, gambling, junk food and prostitution. Because of the nature of these goods, governments often levy taxes on these goods (specifically, sin taxes), in some cases regulating or banning consumption or advertisement of these goods.

Revenue Neutral Rate

- Focus under GST is to arrive at such rates which would not decrease the current revenue generation by Central & State government.
- Revenue neutral rate (RNR) is a structure of different rates established in order to match the current revenue generation with revenue under GST.

Important Issue to Consider

- The shortfall in cess collection has led to delays in payment to states, often leading to friction between states and the centre.
- This gap is likely to enlarge further this year with expected economic contraction denting GST collections as well.
- Compensation cess inflows are expected to shrink as people avoid spending on luxury goods in order to conserve capital or stay afloat in the pandemic-hit economy.
- Given that states are at the forefront of fighting the COVID pandemic, the council must ensure adequate flow of resources to them, and reduce the uncertainty in state finances.

New Challenges

- First, how to compensate states for the greater than expected shortfall this year, and
- Second, whether or not the compensation cess should be extended beyond the five-year period that was originally agreed upon.

Suggestions from various sources

- First, market borrowing has been discussed as a possible way out of this quagmire. However, its legality will need to be examined.
- Hiking tax rates, or the compensation cess, may not be appropriate at the current juncture.

- With states also likely to witness a significant shortfall in tax devolution this year, as compared to the budget estimates, further shortfalls in their revenue, despite the additional borrowing space, will severely restrict their spending.
- Use central borrowings to make up if shortfall remains after implementing measures
- Central to this should be the task to building administrative capacities in services taxation, which in the pre-GST period was in the domain of the Centre. This capacity building effort must include integrated training programmes which focus on the principle of services taxation, and the grooming of officers for audit and skills in the evaluation of financial documents of companies from a compliance angle.
- Preparation of services profiles would be useful as services, unlike goods, are unique in that each service has its own business model.
- The creation of subject matter specialists in services could be part of the capacity building effort. In short, states must focus on the “S” in the GST.
- Another area to look at is the functional reorganization of the commercial tax department of the states, especially in the area of compliance verification by making a clear distinction between the three prongs of the compliance verification system – “return scrutiny”, “audit” and “anti-evasion”.
- The present idea of creating state-level grievance councils is too limited in scope and lacks an institutional structure to be effective. The states could moot this idea in the GST council.
- The terms of reference of the state GST Secretariat could be drawn up clearly to include joint compliance verification with the sharing of risk profiles of companies, grievance Redressal and administrative coordination. The new GST Secretariat can help to forge the bonds of fiscal friendship between the Centre and the states, and would also boost state efforts at better compliance.

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- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

2. Smog Towers

Smog Towers

- A proposal to build Smog Towers was submitted by the Indian Institute of Technology, Bombay (IIT-B) to the Central Pollution Control Board (CPCB).



- In January 2020, the Supreme Court directed that two towers should be installed in the capital by April on a pilot project basis – one at East Delhi’s Anand Vihar, and another at Central Delhi’s Connaught Place.
- This timeline was never met, however.
- Later, it was reported that IIT Bombay backed out from the project.
- This upset the Bench greatly.
- The next day, the Central government informed the court that IIT-B was back on board, and would be signing a Memorandum of Understanding for the project worth over Rs 36 crore.

What is a ‘smog tower’?

- A smog tower is a structure designed to work as a large-scale air purifier, fitted with multiple layers of filters which trap fine dust particles suspended in the air as they pass through them.
- Air is drawn through fans installed at the top of the tower, passed through filters, and then released near the ground
- The smog tower is 20-ft-tall.
- China has built the largest smog tower over 328 ft high at Xian in Shaanxi.
- The cost of the device is Rs 7 lakh.
- The running cost of the device will be around Rs 30,000
- The giant air purifier is fitted with exhaust fans to suck in polluted air with the help of a big inlet unit and has four outlet units
- This smog tower will purify the air within a circumference area of almost 500 meters to 750 meters.
- A machine fixed inside the tower will remove nearly 80% of the particulate matter i.e. PM 2.5 and PM 10
- The large-scale filters expected to be installed in the towers in Delhi would use carbon nanofibres as a major component, and would be fitted along the peripheries of the towers; the height of the towers would be 20 meters.

How does it filter the air?

- The smog tower sucks the polluted air, which is purified by the multiple layers before re-circulated into the atmosphere.
- To purify the air; the highly effective H14 grade Highly Effective Particulate Arrestance (HEPA) filter would be used.
- This filter can clean up to 99.99% Particulate Matter (PM) present in the air with the help of pre-filter and activated carbon.

Has anyone else experimented with a smog tower?

- Yes, smog towers have been experimented with in recent years in cities in the Netherlands, China, South Korea and Poland.

- The first such tower was erected in 2015, in Rotterdam, Netherlands, created by Dutch artist Daan Roosegaarde.
- This 7 metre-high 'smog free tower' can filter 30,000 cubic meters of air per hour around it. More such towers were unveiled by Roosegaarde in subsequent tours of Poland, South Korea and China.
- The towers to be installed in Delhi were to be the result of collaboration between the IITs at Mumbai and Delhi, and the University of Minnesota.
- The university has helped design a 100-metre high permanent smog tower in the Chinese city of Xian. This tower was completed in 2017, and is supposed to be the world's biggest air purifier.

How effective are smog towers?

- An affidavit submitted by the Delhi environment department to the Supreme Court in December had stated, "The (Delhi government) committee is of the view these smog towers may not be useful for the whole city, but they can be useful in creating 'clean air area' zones in different parts of the city."
- An estimate made of their impact on air quality shows a tower would reduce 50% of the particulate matter load – fine dust particles suspended in the air – in an area of 1 kilometer in the direction of the wind, as well as 200 metres each along the sides of the tower and against the direction of the wind.
- Another expert panel set up by the Centre's Department of Science and Technology had estimated in December that 213 smog towers may be required across Delhi – which it said was premature at this stage – and had recommended a pilot project first.
- An assessment of Roosegaarde's smog tower in Beijing by the Eindhoven University of Technology found that in an open field in calm weather, it can reduce particulate matter of 10 micrometers (PM10) up to 45%, and PM2.5 levels up to 25% in an area of 20 meters around the tower
- As for the tower in Xian, researchers claimed, in 2018, that on severely polluted days the tower was able to reduce smog close to moderate levels and improvements in the air quality had been observed over an area of 10 sq km in the city.
- Delhi government officials had, however, said that since full data were not available, the technology of the Chinese tower should be considered unproven still.

The case against smog towers

- First, we have little or no evidence that any of the emergency measures practiced in China have any impact. Data from China is scarce and transparency of public policy is an issue.
- Second, the causes of air pollution in China are different from ours. When industrial pollutants are the main cause of pollution, as in the case of China, and are concentrated in industrial zones, smog towers in industrial hubs make a lot of sense. It is similar to water treatment plants where polluting industries discharge dirty water into rivers.
- Perhaps not as an emergency measure, but as a pilot and an experiment, there is a case for smog towers in Delhi.
- China's smog towers are based on ionisers; these are different from HEPA filters, which are being proposed for Delhi.
- Even if this version of the towers doesn't meet our expectations, perhaps the next version will.

- The localised nature of their effectiveness also makes a case for them. Local governments have very few options to deal with air pollution.

3. All about the Ayodhya Ram Temple

- Ayodhya bhumi puja ceremony will be conducted at 12:13 PM by Indian PM Modi on August 5th.
- A silver slab, weighing about 40 kilogram, will be placed in the sanctum sanctorum of the proposed grand Ram temple in Ayodhya during the ceremony.
- The three-day rituals began from August 3 and culminate on August 5.

Ayodhya Verdict

- A five judge bench of the Supreme Court headed by former CJI Ranjan Gogoi delivered the verdict regarding the disputed site of Babri Masjid-Ram Janmabhoomi on 9th November 2019. The Supreme Court concluded that the masjid was built over a structure which was “non-Islamic”.
- Babri Masjid is the three-domed mosque that Mir Baqi, a commander in the Mughal army and then the Governor of Awadh built in the name of Emperor Babur, in 1528 in the Jaunpuri style, has been at the centre of the dispute.

What are the ceremonies being conducted?

- On August 4th, Ramacharya puja was conducted at the site of janmabhumi.
- Simultaneously, vedic rituals began at Hanuman Garhi temple to procure Lord Hanuman’s permission to start construction work of Ram Mandir as he is deemed to be the protector of Ayodhya.
- Triloki Nath Pandey, decree holder of Ram Janmabhoomi, said that the ceremony on August 5 is 'bhumi puja', which will involve invoking Lord Gannessa, and not 'shilanyas' which was already performed in 1989 by current Trust member Kameshwar Chaupal during the tenure of the then Prime Minister Rajiv Gandhi.

Friend of God?

- In court papers, Triloki Nath Pandey is described as the "next friend" of the infant Lord Ram. The deity was one of the litigants in the long-running Ayodhya dispute.
- For centuries, a deity or an idol has been treated as a "juristic person" in Indian law because many devotees donate their land and possessions to idols that are synonymous with their shrines.
- A devotee or the manager of the shrine or trust typically handles the deity's possessions. In light-hearted legalese, the idol is represented by someone called a "friend" of God.

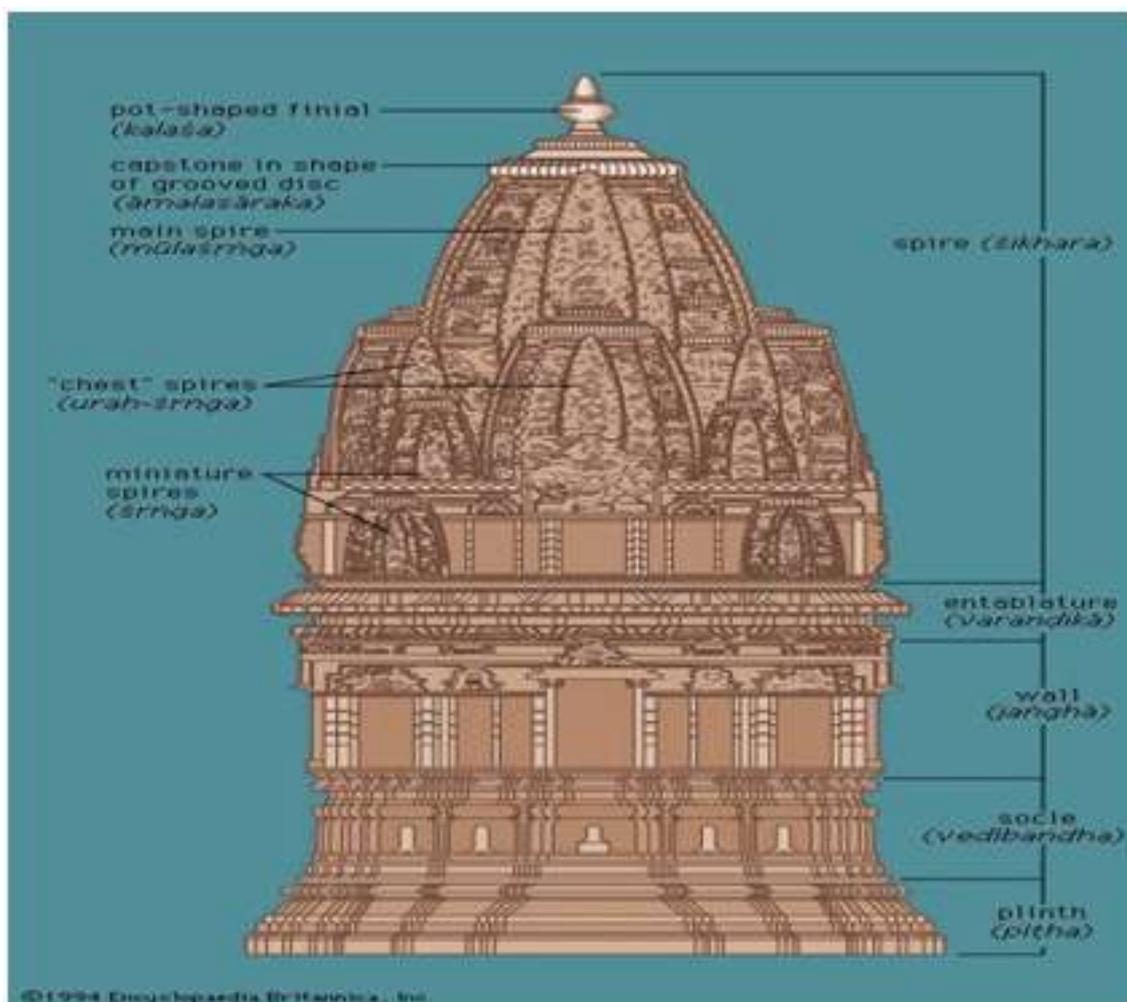
The architecture of Ram Mandir

- Ahead of the ground-breaking ceremony of the foundation stone-laying of Ram temple, the temple trust, Shri Ram Janmbhoomi Teerth Kshetra, set up by the Union Cabinet in Feb 2020 shared images of the proposed model of the grand temple.
- Chandrakant Sompura, the architect of the Ram Mandir, stated that hat the temple will be constructed in Nagara style of architecture and will have five domes instead of two.

Temple architecture in India

- Two broad orders of temples in the country are known— Nagara in the north and Dravida in the south. At times, the Vesar style of temples as an independent style created through the selective mixing of the Nagara and Dravida orders is mentioned by some scholars.
- The basic form of the Hindu temple comprises the following:
 - ✓ sanctum (garbhagriha literally 'womb-house'), made to house the main icon which is itself the focus of much ritual attention;
 - ✓ the entrance to the temple which may be a portico or colonnaded hall that incorporates space for a large number of worshippers and is known as a mandapa;
 - ✓ freestanding temples tend to have a mountain-like spire, which can take the shape of a curving shikhar in North India and a pyramidal tower, called a vimana, in South India;
 - ✓ The vahan, i.e., the mount or vehicle of the temple's main deity along with a standard pillar or dhvaj is placed axially before the sanctum.

Nagara style of architecture



- The style of temple architecture that became popular in northern India is known as nagara.
- In North India it is common for an entire temple to be built on a stone platform with steps leading up to it.

- There are no elaborate boundary walls or gateways. While the earliest temples had just one tower, or shikhara, later temples had several.
- The garbhagriha is always located directly under the tallest tower.
- There are many subdivisions of nagara temples depending on the shape of the shikhara:
- **Rekha-prasada Shikhara:** The most common name for the simple shikhara which is square at the base and whose walls curve or slope inward to a point on top is called the 'latina' or the rekha-prasada type of shikara.
- The Siddhesvara temple at Barakar is placed at 8 th c. CE (early Pala era) and has Latina type shikara with ornamentations carved in shallow relief. The temple shows a garbhagriha (sanctum) holding a shivlinga.
- **Phamsana Shikhara:** The second major type of architectural form in the nagara order is the phamsana. Phamsana buildings tend to be broader and shorter than latina ones.
- Their roofs are composed of several slabs that gently rise to a single point over the centre of the building, unlike the latina ones which look like sharply rising tall towers. Phamsana roofs do not curve inward, instead they slope upwards on a straight incline.
- In many North Indian temples, phamsana design is used for the mandapas while the main Latina is for the garbhagriha.
- **Valabhi Shikhara:** The third main sub-type of the nagara building is what is generally called the valabhi type. These are rectangular buildings with a roof that rises into a vaulted chamber.
- The edge of this vaulted chamber is rounded, like the bamboo or wooden wagons that would have been drawn by bullocks in ancient times. They are usually called 'wagon- vaulted buildings'.

4. Beirut Explosions

Introduction

- The disaster was preceded by a large fire at the Port of Beirut, on the city's northern Mediterranean coast.
- Shortly, the roof of the warehouse caught alight and there was a large initial explosion, followed by a series of smaller blasts that some witnesses said sounded like fireworks going off.
- About 30 seconds later, there was a colossal explosion that sent a mushroom cloud into the air and a supersonic blast wave radiating through the city.

Lebanon

- It is a country in Western Asia,
- Bordered by Syria to the north and east and Israel to the south, while Cyprus lies west across the Mediterranean Sea.





Introduction

- The catastrophic explosion has so far killed at least 135 people and injured around 5,000, with an unknown number feared trapped under rubble.
- It was caused by over 2,700 tonnes of ammonium nitrate kept in storage for over six years.

How big was the Explosion?

- The explosion was also heard as far away as Cyprus, about 200km (125 miles) across the Mediterranean Sea, and seismologists at the United States Geological Survey said it was the equivalent of a 3.3-magnitude earthquake.

What Triggered The Explosion?

- The ammonium nitrate which is used as a fertiliser in agriculture and as an explosive had reportedly been in a warehouse in Beirut port for six years after it was unloaded from a ship impounded in 2013.
- The head of Beirut port and the head of the customs authority both told local media that they had written to the judiciary several times asking that the chemical be exported or sold on to ensure port safety.

Ammonium Nitrate

- A common chemical ingredient of agricultural fertilisers, the nitrogen rich compound is also the main component of the explosive composition known as ANFO – ammonium nitrate fuel oil.
- In its pure form, ammonium nitrate (NH_4NO_3) is a white, crystalline chemical which is soluble in water.
- It is the main ingredient in the manufacture of commercial explosives used in mining and construction.
- Ammonium nitrate is made all over the world and is relatively cheap to buy.
- But storing it can be a problem, and it has been associated with serious industrial accidents in the past.

Ammonium Nitrate as an Explosive

- Pure ammonium nitrate is not an explosive on its own.
- It is classified as an oxidiser (Grade 5.1) under the United Nations classification of dangerous goods.
- If mixed with ingredients like fuel or some other contaminants, or because of some other external factors, it can be very explosive.
- However, for combinations to explode, triggers like detonators are required.
- Many Improvised Explosive Devices (IEDs) used by terrorists around the world have ANFO as the main explosive, triggered by primary explosives like RDX or TNT.
- In the majority of terror attacks in India, including those in Pulwama, Varanasi, Malegaon, Pune, Delhi, and Hyderabad, and Mumbai, ammonium nitrate has been used along with initiator explosives like RDX.
- Ammonium nitrate is relatively safe to handle.
- However, if you have a large amount of material laying around for a long time it begins to decay.

- The real problem is that over time it will absorb little bits of moisture and it eventually turns into an enormous rock.
- This makes it more dangerous because if a fire reaches it, the chemical reaction will be much more intense.

Stored Ammonium Nitrate is a Major Fire Hazard

- Large quantities of stored ammonium nitrate are regarded as a major fire hazard, with multiple reported cases across the world.
- The explosion of large storage can happen primarily in two ways.
- One is by some type detonation or initiation because the storage comes in contact with explosive mixture.
- Second, the blast can result due to a fire which starts in the ammonium nitrate store because of the heat generated due to the oxidation process at large scale.
- The second one seems to be the primary likely cause of the incident at Beirut port.
- There are several documented examples of deadly ammonium nitrate fire and explosion incidents in the past, some with large numbers of fatalities like in China in 2015 and in Texas in 1947.

What Caused Mushroom Cloud?

- Videos from Beirut showed smoke billowing from a fire, and then a mushroom cloud following the blast.
- There is a supersonic shockwave that is travelling through the air, and in the white spherical cloud which travels out from the centre, expanding upwards.
- The shockwave is produced from compressed air.



- The air expands rapidly and cools suddenly and the water condenses, which causes the cloud.

How dangerous are the Gases Produced?

- When ammonium nitrate explodes, it can release toxic gases including nitrogen oxides and ammonia gas.
- The orange plume is caused by the nitrogen dioxide, which is often associated with air pollution.
- If there isn't much wind, it could become a danger to the people nearby.

Now what?

- In Lebanon, public rage focused on the negligence of officials who allowed dangerous cargo to sit on a dock for years.
- A two-week state emergency has been imposed in Beirut following the blast.

India and Ammonium Nitrate

- In India, the manufacture, conversion, bagging, import, export, transport, possession for sale or use of ammonium nitrate is covered under The Ammonium Nitrate Rules, 2012.
- The Explosives Act, 1884, define ammonium nitrate as the “compound with formula NH_4NO_3 including any mixture or compound having more than 45% ammonium nitrate by weight including emulsions, suspensions, melts or gels but excluding emulsion or slurry explosives and non explosives emulsion matrix and fertilizers from which the ammonium nitrate cannot be separated”.
- Storage of ammonium nitrate in large quantities in populated areas is illegal in India.
- For the manufacture of ammonium nitrate, an Industrial license is required under the Industrial Development and Regulation Act, 1951.
- A license under the Ammonium Nitrate Rules, 2012 is also required for any activity related to ammonium nitrate.

Alarm for India?

- In Chennai, officials claim that a large consignment, meant to be sent to a group in the fireworks capital of India - Sivakasi - was seized at the Chennai port in 2015 and has been lying there ever since.

5. Rabindranath Tagore

- Born on 7 May 1861, called Gurudev, Tagore reshaped Bengali literature and music as well as Indian art with Contextual Modernism
- Author of Gitanjali, he became in 1913 the first non-European to win the Nobel Prize in Literature
- As a humanist, universalist, internationalist and ardent anti-nationalist, he denounced British Raj and advocated independence
- His composition, Jana Gana Mana, was sung for the first time at Calcutta session of Congress in 1911

On Nationalism

- Described it as carnivorous and cannibalistic

- He said “the political civilization” that was overrunning the world was “based on exclusiveness” and it is “always watchful to keep at bay the aliens or to exterminate them. It is carnivorous and cannibalistic in its tendencies, it feeds upon the resources of other peoples and tries to swallow their whole future
- He was deeply critical of nationalism, a position that pitted him against Mahatma Gandhi
- Tagore argued that when love for one’s country gives way to worship, or becomes a “sacred obligation”, then disaster is the inevitable outcome
- Tagore had warned Gandhi that there remained a thin line that divided nationalism and xenophobia
- He wanted to “achieve the unity of man by destroying the bondage of nationalism in order to achieve the unity of man”
- He argued that an education teaching that country is greater than the ideals of humanity must be fought with

“I am willing to serve my country; but my worship I reserve for Right which is far greater than country. To worship my country as a god is to bring curse upon it”

On Free Speech

- He said that disagreement and different notions were of utmost importance. Writing from the Soviet Union in 1937, Tagore reacted positively to the Soviet Experiment, particularly their attempts at eradicating lack of education, but warned of any attempt to curb “freedom of mind”

“It would be an uninteresting but a sterile world of mechanical regularity if all our opinions were forcibly made alike... Opinions are constantly changed and rechanged only through free circulation of intellectual forces and persuasion. Violence begets violence and blind stupidity. Freedom of mind is needed for the reception of truth; terror hopelessly kills it.”

In Freedom Struggle

- From 1877-1917, Tagore’s stance on Swadeshi and the anti-Partition movement of Bengal were one with the political climate. But from 1921, as fractures in society – communal and caste – became apparent, Tagore confessed, “I took a few steps down the road, and then stopped.”
- In 1921, speaking critically of the Non-cooperation Movement he admitted to being afraid that he would be rejected by his own people

6. An Assessment of the Defence Sector of India

Recent Defence Procurements

- 21 MiG-29 fighter jets to be procured from Russia at an estimated cost of Rs 7418 crore
- 12 Su-30 MKi aircraft to be bought from Hindustan Aeronautics Ltd (HAL) at an estimated cost of Rs 10730 crore
- Upgrade of the existing 59 MiG-29 aircraft
- 248 ASTRA beyond-visual-range (BVR) air-to-air missile systems
- A significant number of long-range land-attack cruise missile systems with a range of 1,000 km
- Pinaka missile systems and ammunition

- Software-defined radios for the Army
- BMP armament upgrades

**ATMANIRBHAR
BHARAT PUSH**

- A bulk of clearances – **₹31,130 cr** – have been accorded for indigenously built weaponry
- HAL will build the Sukhoi-30MKI fighters in Nashik for **₹10,730 cr**

■ The indigenous content in some of these projects is up to **80%** of project cost

■ Indian companies building equipment worth **₹20,400 cr** based on technology transferred to them by DRDO

Scope of Our Discussion

- Overview of India's Defence
- Procurement
- Analysis of India's Spending
- Comparison of India's Defence Expenditure
- Global Trends
- Allocation in India's Defence Sector
- Way Forward

Overview

- India is ranked as the world's second largest weapons buyer, after Saudi Arabia
- Russia accounts for 56% of arms supplies followed by Israel at 14% and France at 12%
 - ✓ US became the second-largest arms supplier to India in 2010-14, however, in 2015-19 India continued with its policy of diversification and imports of arms from US were 51% lower
- Despite India diversifying the sources from where it buys its military hardware, an estimated 60% of its arsenal contains Russian origin system, making India depend on Russia for critical spare and upgrades
- India has also features as a exporter of defence equipment (0.2% of global arms market) with clients like Myanmar (46%), Sri Lanka (25%) and Mauritius (14%)

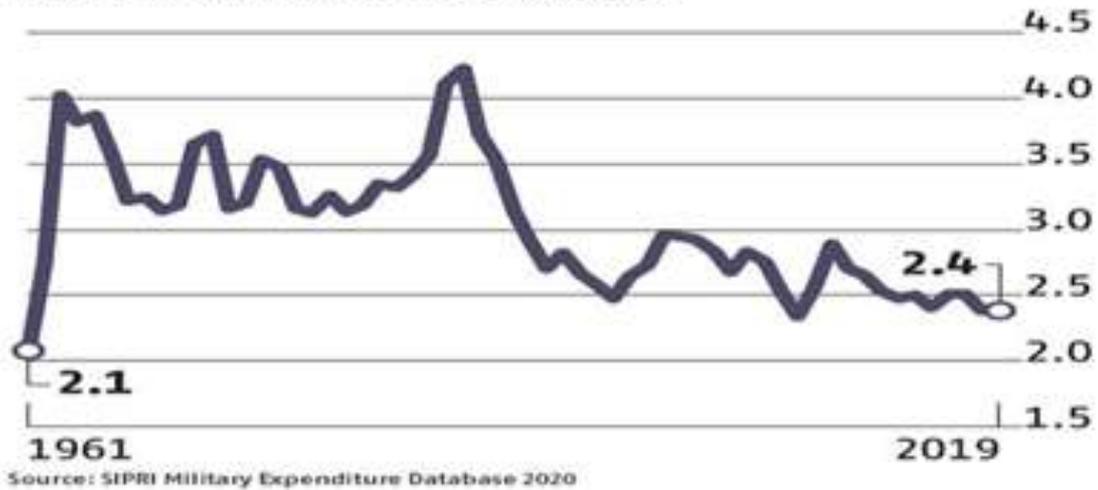
Procurement

- Defence Acquisition Council (DAC) chaired by defence minister is India's highest decision-making body on defence procurement
- FDI limit in the defence manufacturing under automatic route has been raised from 49% to 74%

Analysis of India's Spending

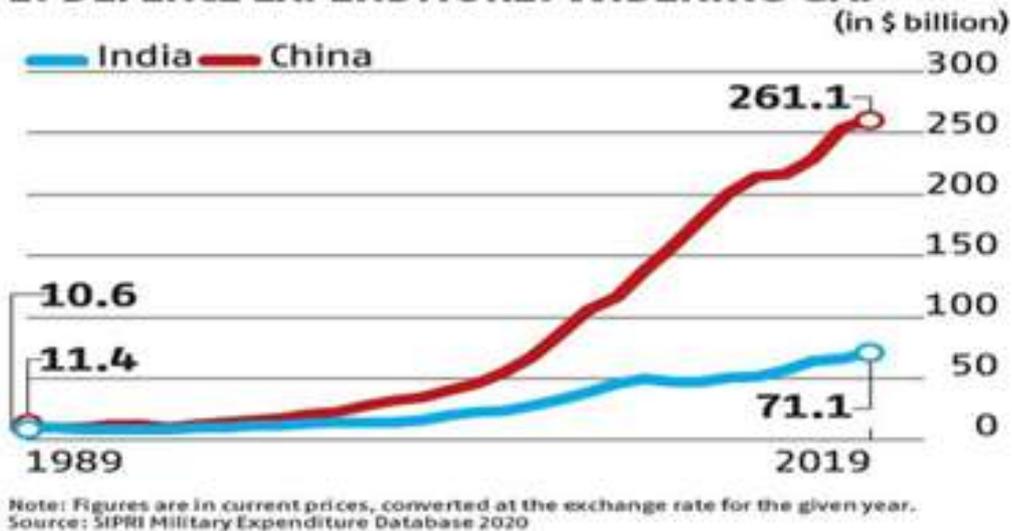
- India spent generously on increasing its military capabilities. Spending has since 1962 seen the occasional surge but has largely been trending downwards

1: ON THE WANE SINCE 1962
India's military expenditure as % of GDP

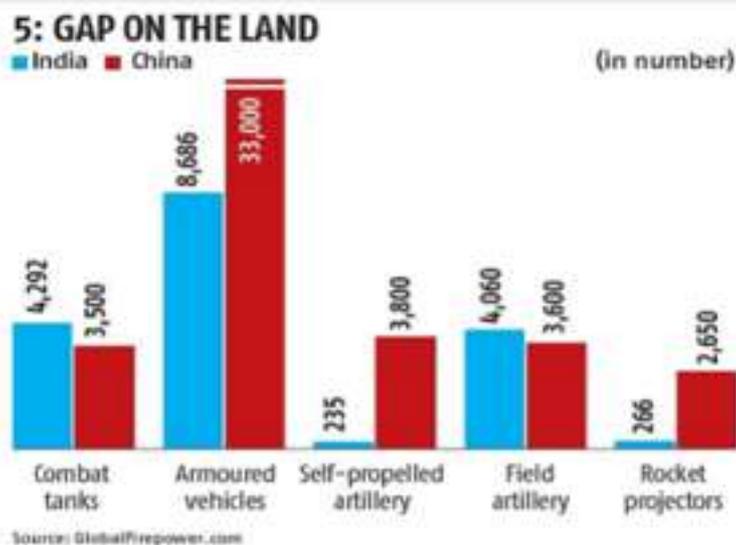
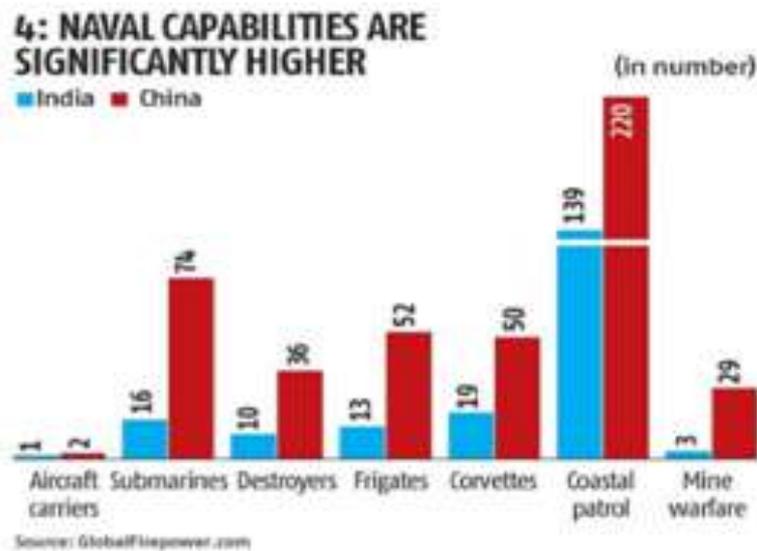
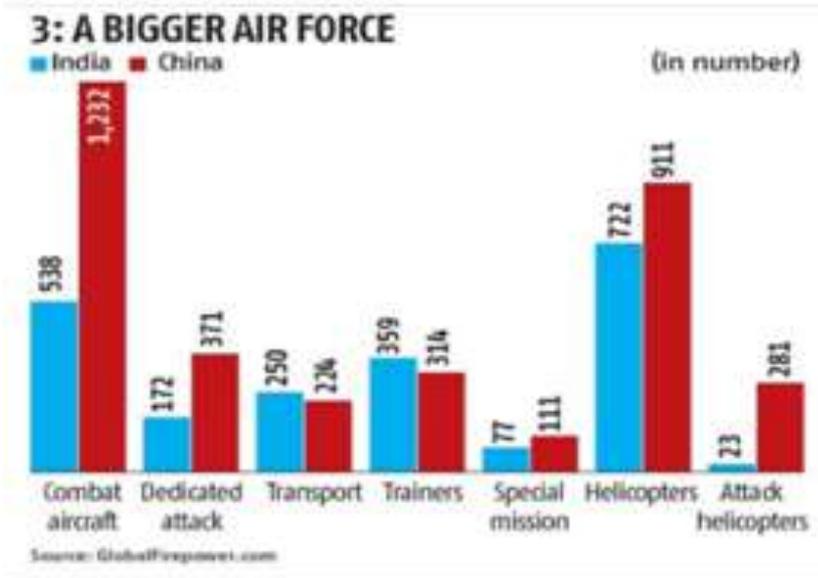


- Lower allocations has meant a widening gap between India and China in terms of the absolute amount being spent on meeting military objectives, especially over the past decade or so. China spends over 3.6 times the amount India spends every year now.

2: DEFENCE EXPENDITURE: WIDENING GAP



- This has translated into a better-equipped air force as well as rising naval capabilities. India has more people if one includes reserve personnel (3.5 million vs 2.7 million), though China has more in active service. But there is a significant difference in terms of land equipment and weaponry



Comparative Analysis of India's Defence Expenditure

- The most recent Indian budgetary figures (revised estimates) put India's defence expenditure for 2019-20 at Rs 4.5 trillion or about \$59.7 billion
 - ✓ This actually puts India at fifth position, behind both Russia and Saudi Arabia
 - ✓ India spends 2.18 per cent of its GDP for defence purposes
- These budgetary figures include all aspects of defence spending, including salaries and defence pensions and civilian establishment of the ministry of defence, Coast Guard and Border Roads Organisation

Comparison with US, China, Russia, UK & Pakistan

- India allocates, by far, the highest percentage of its Defence Budget on personnel costs, with 59% going to salaries and pensions
 - ✓ US and UK pay only 38 per cent and 30.6 per cent
- The heavy outgo on personnel costs results in India having the lowest percentage spend on equipment modernisation
 - ✓ India spares no more than 25% of its Defence budget on capital expenditure whereas China and UK spend 41 and 42 per cent on modernisation and even Pakistan spends around 37 per cent
 - ✓ Countries like the UK plan equipment modernisation for a 10-year window, identifying exactly what weapon platforms they need to replace and allocating the funding for procuring replacements
 - ✓ In contrast, India's 15-year Long Term Integrated Perspective Plan (LTIPP) is an endless wish list that the Budget cannot support, since there are no priorities identified, nor alignment of requirements with future budgetary means
 - ✓ India is ahead only of Pakistan in the amount spent on each soldier a year – including salary, equipment and training costs. While the US spends over half a million dollars per soldier and the UK spends \$367,000, India spends a mere \$43,000 per individual. Consequently, the Indian military is a manpower-heavy throng that is poorly armed, equipped, and trained.

	Defence budget (\$ bn)	Military personnel (millions)	Spending per man (\$1,000)	Spend on personnel (%)	Spend on equipment (%)
USA	732.0	1.4	522	38.0	35
China	261.0	2.03	129	30.8	41
Russia	65.1	0.9	72	35.0	33
India	62.4	1.45	43	59.0	25
UK	51.4	0.14	367	30.6	42
Pakistan	10.3	0.65	16	40.0	37

Source: Multiple non-classified sources

Global Trends

- Global military expenditure growth at 3.6 per cent saw its largest annual spike in a decade in 2019
 - ✓ The total global military expenditure rose to \$1,917 billion in 2019 and its is the largest spending growth since 2010
- The five largest spenders, which accounted for 62 per cent of the total expenditure, were the US, China, India, Russia and Saudi Arabia
- The global military spending in 2019 represented 2.2 per cent of the global gross domestic product (GDP), which equates to approximately \$249 per person
- The military spending by the US grew by 5.3 per cent to a total of \$732 billion in 2019 and accounted for 38 per cent of global military spending. The increase in US spending in 2019 alone was equivalent to the entirety of Germany's military expenditure for that year

Allocations in the Defence Sector

- The allocation for the revenue head continues to be more than the capital expenditure
 - ✓ Revenue allocation is essential for the maintenance of weapons, equipment, transport and ammunition for the smooth function of the armed forces, apart from repairs, overhaul and procurements for the recoupment of stores and reserves
 - ✓ It also saw marginal increase from FY 2019-20
- Capital expenditure also saw a marginal increase from FY 2019-20
- The largest increase in terms of budgetary allocation for capital expenditure is for IAF followed by Army
- In the allocation of the capital expenditure, there is an enhanced share of aircraft and aero engines for all the three services apart from their core acquisitions of weapon systems and naval fleet

Way Forward

A two-pronged pragmatic approach could hold the key for meeting our security challenges.

- At the strategic level: Forging alliances with partners who hold a stake in the Indian sub-continent and the Indian Ocean Region. The Quad, securing naval berths in the friendly nations from Vietnam and Indonesia in the East to Qatar and Seychelles in the West
- Pragmatic approach to continue modernisation of the Armed Forces by way of greater participation of the private industry through reliance on making in India and also assembling in India.
 - ✓ More partnerships of the Public and Private Sector, to meet the shortfalls in the budgetary allocation to fill in the wide gaps of technology, capital and to broad base the defence production in the country.
- With the creation of the office of Chief of Defence Staff and the enhanced powers of procurement to the services, it is hoped that the three wings of India's armed forces may operate in synergy in terms of defence spends, both for capital and revenue expenditure. India's security concerns mandate a strong army, navy and air force where the three wings work cohesively for maximum tactical and operational efficiency.

