

CURRENT AFFAIRS

WEEKLY

WEEK - 1 AUGUST, 2019

MAINS

ECONOMY

- ⑦ \$ 5 Trillion Economy
- ⑦ Blue Economy
- ⑦ Privatisation of Railways

ENVIRONMENT

- ⑦ Global Carbon Project Report

INTERNAL SECURITY

- ⑦ National Investigation Agency (Amendment) Bill 2019

POLITY

- ⑦ Effectiveness of Anti-Defection Law

SOCIAL ISSUES

- ⑦ AIDS as a global concern

EDUCATION

- ⑦ Paramarsh

ENVIRONMENT

- ⑦ Blue Flag Challenge
- ⑦ Kaziranga National Park

GEOGRAPHY & ENVIRONMENT

- ⑦ Orchids of India: A Pictorial Guide
- ⑦ Polavaram Irrigation Project
- ⑦ Tigers under high stress

HEALTH

- ⑦ Chandipura Virus

INTERNATIONAL RELATIONS

- ⑦ International Court of Justice (ICJ)

POLITY

- ⑦ Delay in establishment of Human Rights Court

SCIENCE

- ⑦ Ramanujan Machine

SOCIAL ISSUES

- ⑦ Atal Bimit Vyakti Kalyan Yojana (ABVKY)
- ⑦ Mahila Samridhi Yojana
- ⑦ Prevention of tuberculosis
- ⑦ State of Food Security and Nutrition in the World 2019 report

PRELIMS

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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK-1 (AUGUST, 2019)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

\$ 5 TRILLION ECONOMY

CONTEXT

- Prime Minister had announced the target of a \$5 trillion economy for India by 2024. This will make India the third-largest economy in the world.
- The focus of plans will be on boosting services sector contribution to \$ 3 trillion, manufacturing to \$ 1 trillion and Agriculture to \$ 1 trillion.

● ANALYSIS:

What is a \$5-trillion economy?

- Essentially \$5-trillion economy is the size of an economy as measured by the annual Gross Domestic Product (GDP).
- The GDP of an economy is the total monetary value of all goods and services produced in an economy within a year.
- GDP is a way among countries (economies) to keep score about who is ahead.
- In 2014, India's GDP was \$1.85 trillion. In 2018, it is \$2.7 trillion and India is the sixth-largest economy in the world.
- Apart from the monetary definition, a \$ 5 Trillion Economy calls for pulling all the economic growth levers—investment, consumption, exports, and across all the three sectors of agriculture, manufacturing and services.
- It also means improving all three sectors of the economy, India will more likely achieve its ambitious Sustainable Developmental Goals (SDGs).
- By attaining double-digit growth, India has little hope of employing the roughly one million young people. Favourable demographics will emerge as an upper-middle-income economy with a prosperous and thriving middle class.

Comparison with Major Economies of the World

- India is the sixth-largest economy does not necessarily mean that Indians are the sixth-richest people on the planet. If one wants to better understand the wellbeing of the people in an economy, one should look at GDP per capita.
- The second column of the table reveals a very different, and indeed a more accurate picture of the level of prosperity in the respective economies. For instance, on average, a UK resident's income was 21 times that of an average Indian in 2018. This wide gap exists even though India's overall GDP is very nearly the same as UK's.

GDP and GDP Per capita: Where India stands

Countries	GDP \$ trillion (in 2018)	GDP per capita in \$ (in 2018)
India	2.72	2,015
United States	20.49	62,641
China	13.60	9,770
Japan	4.97	39,286
Germany	3.99	48,195
United Kingdom	2.82	42,491
Indonesia	1.04	3,893
Bangladesh	0.27	1,698

Characteristics of a valuable economy

- Today the economy must be evaluated in terms of how much it contributes to the ease of our living. So following are some of the characteristics of a valuable economy:
- First, Indians should feel empowered by the economy. But India is placed very low in the United Nations' World Happiness Report. Happiness is related to being educated and experiencing good health. So, the first attribute of the valuable economy would be access to quality health and education for all.
- Second attribute would be equality of opportunity. According to some measures, India is today more unequal than China, itself a society widely perceived as highly unequal, which is related to unequal distribution of income, gender inequality and sex ratio, already unfavourable to women. Inequality in India can only be ended by equalising capabilities across individuals. Concerted public action via education is the means to this outcome.
- Recently released Global Multi Poverty Index shows that India has lifted 271 million people out of poverty between 2006 and 2016. But still it remains a major issue. As \$ 5 Trillion economy is

accompanied by job growth, equality of opportunity and better health and education, it will indirectly improve the status of social inequality.

Contribution of Different Sectors in achieving the goal of \$5 Trillion Economy

• Primary Sector

- ▶ Investment is the key for the flourishing of areas like agro-processing, and exports, agri-startups and agri-tourism, where the potential for job creation and capacity utilisation is far less.
- ▶ Investment needs to be driven to strengthen both public and private extension advisory systems (educating farmers about technology and management practices) and the quality of agri-education and research through collaboration and convergence.
- ▶ It would also serve as a stage to demonstrate resource conservation and sustainable use through organic, natural and green methods, and also zero budget natural farming.
- ▶ India has the highest livestock population in the world, investment should be made to utilise this surplus by employing next-generation livestock technology. This would lead to a sustained increase in farm income and savings with an export-oriented growth model.
- ▶ Investment in renewable energy generation (using small wind mill and solar pumps) on fallow farmland and in hilly terrain would help reduce the burden of debt-ridden electricity distribution companies and State governments, besides enabling energy security in rural areas.
- ▶ A farm business organisation is another source of routing private investment to agriculture. Linking these organisations with commodity exchanges would provide agriculture commodities more space on international trading platforms and reduce the burden of markets in a glut season, with certain policy/procedural modifications.

• Manufacturing Sector

- ▶ A three-pillar strategy has been suggested to achieve required expansion of output -- focus on existing high impact and emerging sectors as well as MSMEs.
- ▶ To boost electronics manufacturing, it said the government should consider offering additional fiscal incentives such as a limited-period tax holiday to players investing more than an identified threshold of investment.
- ▶ Similarly for the auto and auto-components sector, it recommended encouragement of global leaders for the identified components to

set up manufacturing bases, and incentivising players willing to invest more than a threshold in identified areas.

- ▶ The report suggested measures to boost manufacturing in other areas including aeronautical, space, garments, organic/ayurvedic products besides emerging areas such as biotechnology, electric mobility, unmanned aerial vehicles, medical devices, robotics and chemicals.
- ▶ For micro, small and medium enterprises, the working group said there is a need to improve access to funding by way of development of SME credit risk databases, SME credit rating, and creation of community-based funds.

• Service Sector

- ▶ Services sector include improving rail connectivity and seamless connectivity to major attractions; facilitating visa regime for medical travel; allowing expatriate professional to perform surgeries in identified hospitals; and e-commerce policy and regulatory framework for logistics segment.
- ▶ This sector contributes significantly to India's GDP, a goal of around 60 % contribution of services sector has been envisaged for 2024. Exports and job creation, increased productivity and competitiveness of the Champion Services Sectors like IT, tourism, medical value travel and legal will further boost exports of various services from India.
- ▶ The Commerce Minister has identified 15 strategic overseas locations where the Trade Promotion Organisations (TPOs) are proposed to be created.
- ▶ Multi-Modal Logistics Parks Policy (MMLPs) aims to improve the country's logistics sector by lowering over freight costs, reducing vehicular pollution and congestion and cutting warehouse costs with a view to promoting movements of goods for domestic and global trade.
- ▶ In the defence sector, there is a need to identify key components and systems and encourage global leaders to set up manufacturing base in India by offering limited period incentives; and ensure incentives result in technology/process transfer.
- ▶ To promote growth of accounting and financial services, there is a need to FDI in domestic accounting and auditing sector, transparent regulatory framework, and easing restriction on client base in the accounting and auditing sector.
- ▶ Measures like exploring introduction of insurance in the film industry, promoting private

investments in film schools, exploring franchise business models to exploit film franchise, and promoting gaming industry value chains aims to push audio visual services.

- ▶ Foreign universities are allowed to set up campuses in India, easy visa regime for students and education service providers, removing regulatory bottlenecks, providing recognition of online degrees and setting up appropriate evaluation techniques for online courses for the education sector.

Initiatives by India

• Primary Sector

- ▶ The Government has several on-going initiatives across sectors focused on growth. In agriculture the Government is aiming to reorient policy focus from being production-centric to becoming income-centric.
- ▶ The Commerce Ministry has formulated India's first ever Agricultural Export Policy with a focused plan to boost India's agricultural exports to \$ 60 billion by 2022 thereby assisting the Agriculture Ministry in achieving its target of \$ 100 billion and to integrate Indian farmers and the high quality agricultural products with global value chains and to double India's share in world agriculture.

• Manufacturing Sector

- ▶ The emphasis on incomes provides a broader scope towards achieving the needed expansion of the sector. The proposed Industrial Policy 2018 provides an overarching, sector-agnostic agenda for the enterprises of the future and envisions creating a globally competitive Indian industry that is modern, sustainable and inclusive.
- ▶ India has improved its rank in Ease of Doing Business Index from 100 in 2017 to 77 in 2018.
- ▶ Ministry of Commerce is making all efforts to ensure that in public procurement preference is given to Make in India. Its aim is to make India the hub of manufacturing, India has emerged as one of the fastest growing economies.
- ▶ India has jumped 3 places on the Global Innovation Index from rank 60 in 2017 to rank 57 in 2018.
- ▶ Start-up India is a flagship initiative of the Government of India, intended to build a strong ecosystem that is conducive for the growth of start-up businesses, to drive sustainable economic growth and generate large scale employment opportunities.
- ▶ In Union Budget 2018-19, the Government of India reduced the income tax rate to 25 per

cent for all companies having a turnover of up to Rs 250 crore.

- ▶ Under the Mid-Term Review of Foreign Trade Policy (2015-20), the Government of India increased export incentives available to labour intensive MSME sectors by 2 per cent.
- ▶ The Government of India has launched a Phased Manufacturing Programme (PMP) aimed at adding more smartphone components under the Make in India initiative thereby giving a push to the domestic manufacturing of mobile handsets.
- ▶ The Government of India is in talks with stakeholders to further ease foreign direct investment (FDI) in defence under the automatic route to 51 per cent from the current 49 per cent, in order to give a boost to the Make in India initiative and to generate employment.
- ▶ The Ministry of Defence, Government of India, approved the "Strategic Partnership" model which will enable private companies to tie up with foreign players for manufacturing submarines, fighter jets, helicopters and armoured vehicles.

• Service Sector

- ▶ The Champion Services sector initiative is also under way to accelerate the expansion of select service sectors.
- ▶ The 2019 Union Budget talks about plans with a pan-India focus to give a further boost to Sagarmala, Bharatmala and UDAN projects, besides the dedicated industrial and freight corridors.
- ▶ The budget proposes further opening of FDI in aviation sector, media, animation AVGC and insurance sectors in consultation with all stakeholders. 100 per cent FDI will be permitted for insurance intermediaries.

• Feasibility Of Becoming \$5 Trillion Economy

- ▶ If India grows at 12% nominal growth (that is 8% real GDP growth and 4% inflation), then from the 2018 level of \$2.7 trillion, India would reach the 5.33 trillion mark in 2024.
- ▶ But last year, India grew by just 6.8%. This year, most observers expect it to grow by just 7%. So India must keep growing at a rapid pace to attain this target.
- ▶ The Economic Survey 2018-19 highlighted that international experience, especially from high-growth East Asian economies, suggested that such growth can only be sustained by a "virtuous cycle" of savings, investment and exports catalysed and supported by a favourable demographic phase.

- ▶ Investment, especially private investment, is the key driver that drives demand, creates capacity, increases labour productivity, introduces new technology, allows creative destruction and generates jobs.

◎ CHALLENGES:

Sectors of Indian Economy

• Primary Sector

- ▶ One of the major problems that this sector faces is the under-employment and the disguised employment. Underemployment accounts for the workers not working to the best of their capabilities while the latter accounts for the workers not working to their true potential.
- ▶ The slow-down in agricultural growth has become a major cause for concern. India's rice yields are one-third of China's and about half of those in Vietnam and Indonesia. The same is true for most other agricultural commodities.
- ▶ Water resources are also limited and water for irrigation must contend with increasing industrial and urban needs

• Manufacturing Sector

- ▶ Poor networks of roads, inadequate air & sea port capacities along with undeveloped railway networks are hindering the growth of this sector. This leads to slow & inefficient delivery of the product to the customers.
- ▶ The turnaround times are also high due to heavy congestion on berths and slow evacuation of cargo unloaded at berths. High cost of fuel & high waiting times negatively impact the logistic sector.
- ▶ The transportation industry is also severely unorganised. The employees of this sector have inadequate skills which lead to inefficient supply of goods. Low level of technology and poor maintenance of the tools are also responsible for inefficiency of the transportation industry.

• Service Sector

- ▶ The main problem that this sector is that the jobs which involve lower salaries do not attract much employment. And this remains the future dilemma as India is looking for double-digit growth in the near future.

Common Challenges

- ▶ Depressing pace in carrying out land and labour reforms: This has been a major turn-off for investors looking at setting shop in the country. Budget talks about narrowing labour laws. This is a step in the right direction but

quick execution is important. Since land is a state subject, respective state governments need to work with the Centre to bring about the change. In the past, investors got a shocker from episodes such as Singur.

- ▶ Slow pace of infrastructure development in the last decade: India is still at the position where China was 20 years ago in terms of infrastructure development. The plans are ambitious, but the problem is resources.
- ▶ Funding Problem: India does not have powerful institutions that can fund long-gestation infrastructure projects. Banks do not have enough long-term liabilities to match such loans. Lenders have gone terribly wrong in the past by not following healthy lending practices.
- ▶ India does not have a deep bond market to take up the financing burden. The state-insurer Life Insurance Corporation of India (LIC) has been overexploited to do businesses it has never understood. There aren't many other options left to take up the infra-funding burden. The government's plan to borrow off-budget is risky and inadvisable.
- ▶ Government's excessive involvement in businesses: The government remains active participant in several entities including banks, airline, and infrastructure firms. It controls 70 % of the banking industry. This participation has resulted in a lot of money getting stuck in these entities.
- ▶ The government will have to exit these businesses backed by a solid, aggressive disinvestment plan to unlock this money.
- ▶ Private investors back: This is even more critical now since domestic consumption is dropping to dangerous levels. Investment in new projects plunged to a 15-year low in the quarter ending June 2019. Both private and public sectors announced new projects worth Rs 43,400 crore in June 2019 quarter, 81 % lower than what was announced in the March quarter and 87 % lower than during the same period a year ago.
- ▶ According to the finance ministry's data, projects worth almost Rs 11 lakh crore remain 'stalled' or are having issues. Railways, roads, and power sectors account for more than half of these stalled projects.
- ▶ Public money: Government spending has largely aided GDP growth. Sure, this was needed at a time when private investors were absent. However, an economy which rides largely on government money for a prolonged period of time does not promise much to the economy in the long run. What is needed is the participation of private investors.

Way Forward

- There is a need to place India's official statistics on a firmer footing, so that we can be sure that economic policy-making is based on reality. However, getting the numbers right will not ideally end the task.
- Government alone would not be able to meet the target of achieving the \$ 5 trillion economy. Private sector would have to take the lead. Budget 2018-19 included a hike in the disinvestment target, governmental support to NBFCs and a long-term plan to deepen the corporate bond markets.
- Structural reforms in the agriculture sector would also have to carry out. There is a need to modernise the farm sector.
- The States should recognise their core competence and aim to increase their economy by 2 to 2.5 times, working towards raising GDP targets right from the district level. States to focus on their potential to grow exports.
- Development should be seen right when a child is born, this attitude can make a real change in the field of Human development also. Hence, it shall ultimately help the real economic growth.
- Global healthcare and wellness is a \$8 trillion industry, need to convert India's 600 district hospitals as medical, nursing and paramedical schools to train 5 million doctors, nurses, and paramedics to meet the global requirement.



Practice Question

- What measures need to be taken by government to achieve the goal of \$ 5 Trillion economy by 2024 so that the economic growth and Human Development goes hand in hand?

CONTEXT

\$5 TN ECONOMY BY 2024

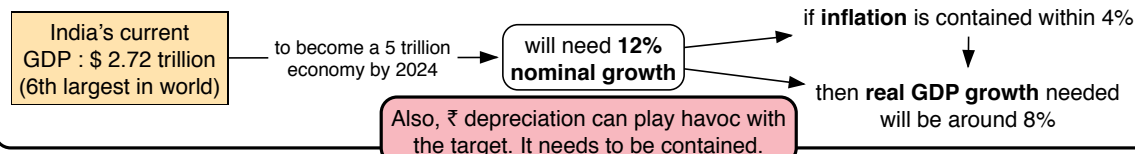
Prime Minister has announced the target of a **\$5 trillion economy** for India by 2024.

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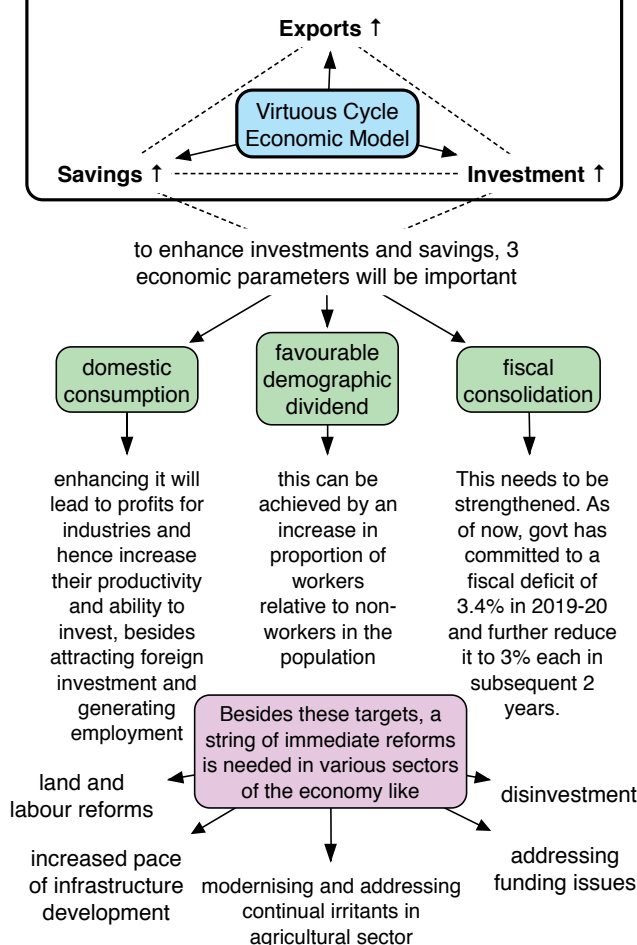
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Learning Aid

'Numbers Game' to become a 5 trillion economy by 2024



Growth Model highlighted by Economic Survey to attain the 5 TN target



Bottomline

- Last year, GDP grew by 6.8% and this year it is expected to grow by 7% only. So, clearly, an uphill task lies ahead.
- Government alone would not be able to meet the target of achieving the \$ 5 trillion economy. **Private sector** would have to take the lead.
- Budget 2018-19 has gone a long way in taking steps towards the target like a hike in the disinvestment target, governmental support to NBFCs, a long-term plan to deepen the corporate bond markets, etc. But a lot more remains to be done.
- Besides, **the states should recognise their core competence** and aim to increase their economy by 2 to 2.5 times, working towards raising GDP targets right from the district level.

Getting to \$5 Trillion

Emphasising infrastructure and rural development, the budget aims to put India's economy on a growth path leading to \$5 trillion over the next few years

₹83,000 cr
Allocated to roads. Also includes off balance sheet borrowings of Rs 75,000 crore

₹19,000 cr
Allocated to PM Gram Sadak Yojana. Connection of eligible habitations to road networks to be completed by 2019

19.5mn
Affordable homes to be constructed between 2019 and 2022. 15.4mn such homes have been constructed in the past five years

Sources: Budget 2019-20, Economic Survey 2019, Yes Securities Institutional Equities report, FY20 Union Budget: A sprinkler budget

₹68,000 cr
Allocated to railways. Special focus on PPPs in railway and metro-rail infrastructure

₹75,000 cr
Allocated to PM Kisan Samman Nidhi. 10,000 farmer-producer groups to be set up to improve agricultural productivity

92%
The increase in funding for agriculture, compared to Budget 2018-19 (revised estimates)

₹60,000 cr
Allocated to MGNREGA. A decrease of Rs 1,084 crore, compared to Budget 2018-19 (revised estimates)

BLUE ECONOMY

CONTEXT

- Commitment to the development of the Blue Economy has been expressed by a mention in the budget speech. This has laid the foundation and will provide the initial traction to create the space for implementation of the strategy.

◎ ABOUT

- The development of the Blue Economy can play a critical role in nation building.
- It would enhance the GDP, not just by exploitation of under-water resources but by developing it as a platform for infrastructure expansion into the ocean, especially when there is a shortage of space on land.
- The idea is to expand port activities on the sea rather than on land.
- There is possible re-calibration of its growth potential, first, by improving the measurement of its contribution to the economy and then through strategic policy interventions to enhance its contribution to manufacturing and services.
- A time-bound action plan can be set using the SMART (Specific, Measurable, Achievable, Realistic, Time-tested) formula.
- A graded policy intervention will be the first part of implementation.
- For the success of the idea, a dedicated national-level institution, skilled in such state-of-the-art analytical approaches, will have to be given this responsibility.

Scopes of growth and development

- The sub-sectors includes blue trade in both goods and services, including the development of marine services (such as port services, ship repair, maritime finance and insurance, marine ICT and digitisation)
- Blue investment (port and transloading in mid-seas, coastal-to-hinterland connectivity)
- Blue SMEs — a sub-category of the SMEs as defined by the Ministry of Small and Medium Enterprises (MSME)
- Blue manufacturing (development of dedicated industrial parks, as is being envisaged under the Sagarmala, protection risks of coastal natural calamities, etc.)
- Some time-tested paradigms of PPPs (Public Private Partnerships) will be ideal for the growth and development of the sector.
- A mechanism to coordinate the efforts of the

coastal districts/municipalities/panchayats, coastal state governments, and the Union government will need to be established.

Meaning of the term “Blue Economy”

- Blue economy' is the integration of ocean economy development with values of social inclusion and environmental sustainability, along with dynamic and innovative business models.
- For India, however, blue economy extends beyond being merely an economic and environmental proposition. It presents India with an unprecedented opportunity to meet its national objectives, strengthen connectivity with neighbours, and exert influence in the surrounding regions.

Introduction on oceans and Blue Economy

- Oceans cover three quarters of the Earth's surface, contain 97% of the Earth's water, and represent 99% of the living area on the planet
- Oceans are claimed to be 'last frontiers' of growth and development, but the immense potential that the Oceans present remains to be tapped fully
- However, this potential needs to be harnessed in a balanced manner, where the preservation and health of Oceans are given their due importance, along with adherence to the United Nation's Sustainable Development Goal 14 that states "Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- The Ocean based Blue Economy is the next sunrise issue for development – "The Blue Economy: 10 years, 100 innovations, 100 million jobs".
- Blue Economy is based on the idea to use locally available resources and employ renewable inputs.
- Marine based economic development will reduce environmental risks and mitigate ecological challenges. As a result, the optimized and responsible resource utilization will enable to achieve balanced socio-economic development

India's Sagarmala initiative for port led development

- India has a 7,517 km long coastline, 14,500 km of potentially navigable waterways, and strategic locations along major international maritime trade

routes.

- Data shows that despite its long coastline, India's coasts only contribute to 15 percent of national trade activity.
- The blueprint includes setting up new ports, modernizing existing ports, developing coastal zones and boosting local employment generation, establishing connectivity between ports and road, rail, multi-modal logistics parks, pipelines, and waterways, as well as promoting coastal community development.
- This comprehensive plan is now pitched as India's primary infrastructure focus, rivaling China's Belt and Road Initiative (BRI) that seeks to expand and build regional connectivity infrastructure.
- The government wants to transform the country's ports and reduce logistics costs for domestic as well as import/export cargo by optimizing infrastructure investment.
- The government has planned six megaports under the project, namely the Vizhinjam International Seaport (Kerala state), Colachel Seaport (Tamil Nadu), VadHAVAN Port (Maharashtra), Tadadi Port (Karnataka), Machilipatnam Port (Andhra Pradesh), and Sagar Island Port (West Bengal).
- India currently permits 100 percent FDI for the construction and maintenance of ports.

Key initiatives under Sagarmala are

- Port modernization and new port development;
- Port connectivity enhancement;
- Port-led industrialization; and,
- Coastal community development.

Advantage of coastal shipping in India

- Logistics in India contribute to 19 percent of the GDP, and remains among the highest in the world as compared to China
- Several studies show that using coastal shipping and inland waterways would be 60 to 80 percent cheaper than road or rail transport.
- If coastal shipping is used to complement road and rail transport in India, it could therefore lead to significant logistics cost savings.

India to Develop New Sea Routes and Shipping Services

- The Government proposes to develop new sea routes and shipping services connecting with various countries.
- New sea routes are considered with a view to enhance regional connectivity from the strategic and trade perspectives, and also to enhance maritime cooperation with neighbouring countries

like Sri Lanka, Maldives, Bangladesh, Myanmar and Thailand.

Steps been initiated by the Government for preventive/ mitigating security measures to deal with sea-piracy

- Guidelines for anti-piracy measures to be implemented on Indian Ships through issued by the Directorate General of Shipping for elaborate anti-piracy measures, including safe house/citadel for vessels.
- Banning of sailing vessels to ply in waters south or west of the line joining Salala and Male.
- Naval escort provided by Indian naval ships in the Gulf of Aden
- Enhanced vigil by the Indian Navy in the Indian Exclusive Economic Zone (EEZ) and westward up to 65 degree east longitude.
- Active participation of India in the security meeting of the International Maritime Organization Contact Group on Piracy off the Coast of Somalia (CGPCS) and other international forums.
- Directorate General of Shipping has issued circulars from time to time, emphasizing action to be taken by Indian Merchant Ships, Shipping companies and other departments.

Environmental Concerns

- **Ballast water:** Cruise ships, large tankers, and bulk cargo carriers use a huge amount of ballast water, which is often taken on in the coastal waters in one region after ships discharge wastewater or unload cargo, and discharged at the next port of call, wherever more cargo is loaded. Ballast water discharge typically contains a variety of biological materials, including plants, animals, viruses, and bacteria. These materials often include non-native, nuisance, invasive, exotic species that can cause extensive ecological and economic damage to aquatic ecosystems along with serious human health problems.
- **Wildlife collisions:** Marine mammals, such as whales and manatees, risk being struck by ships, causing injury and death.
- **Oil spills:** While less frequent than the pollution that occurs from daily operations, oil spills have devastating effects. While being toxic to marine life, polycyclic aromatic hydrocarbons (PAHs), the components in crude oil, are very difficult to clean up, and last for years in the sediment and marine environment.
- **Solid Waste:** Solid waste generated on a ship includes glass, paper, cardboard, aluminium and steel cans, and plastics. It can be either non-hazardous or hazardous in nature. Solid waste that enters the ocean may become marine debris,

and can then pose a threat to marine organisms, humans, coastal communities, and industries that utilize marine waters.

Lessons from Other Countries growing via Blue Economy

- The strategies of Australia, China, and Mauritius, for example, view the potential of sustainable ocean economy in meeting their countries' development objectives.
- In Australia, offshore oil and gas and aquaculture industry have dominated the blue economy
- In Mauritius, meanwhile, coastal tourism and seaport-related activities contribute the largest share
- For China, fisheries, tourism, and transport lead its marine economy
- Future plans and policies of these countries have laid additional emphasis on innovation, marine research and development, and marine information and communication technologies (ICT).
- For India, the marine services sector could be the backbone of its blue economy. In line with the 'Digital India' and 'Make in India' initiatives
- India must focus on marine ICTs, and transport (shipping) and communication services, and the creation of a knowledge hub for marine research

and development, alongside the more traditional sectors like fisheries and coastal tourism.

Way forward

- Regional focus has turned towards the Indian Ocean as the new frontier for sustainable economic development, alongside concerns of security issues.
- India should build on the momentum it has created thus far and take on a larger responsibility in developing and securing the Indian Ocean by developing ideas, norms and road maps for an inclusive and collaborative ocean governance society.
- Developing a normative framework for doing business and harnessing the ocean's potential in a sustainable manner is another area where India could demonstrate leadership.
- India should start by creating robust mechanisms for knowledge creation. For instance, diverse platforms for interaction between sectoral experts, professionals, scientists, and the business community could be envisaged.
- The existing and new multilateral trading agreements should also be modified and defined in a way that enables the creation of sustainable infrastructure to meet the demands of future economic activities.



Practice Question

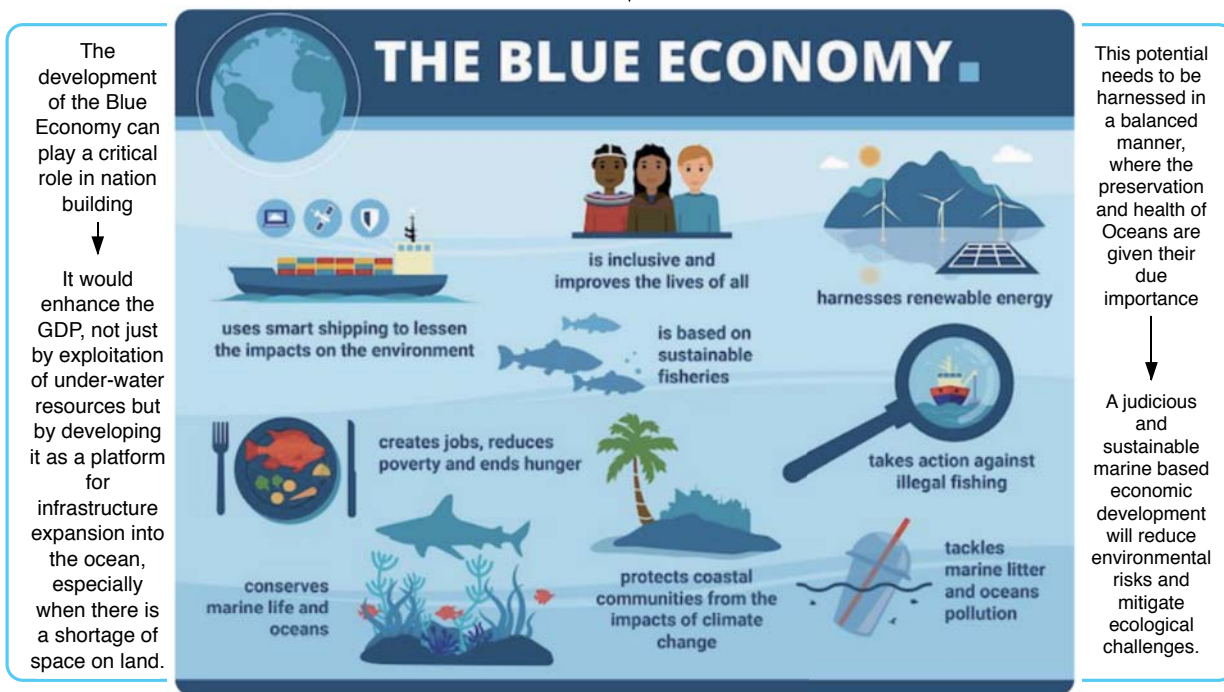
- Scrutinize the capability of Blue Economy in India. Also, ventilate the concerns associated with it and what should be done to harness its full capacity. Discuss, what India can learn from other countries which have already seen growth via Blue Economy?

CONTEXT

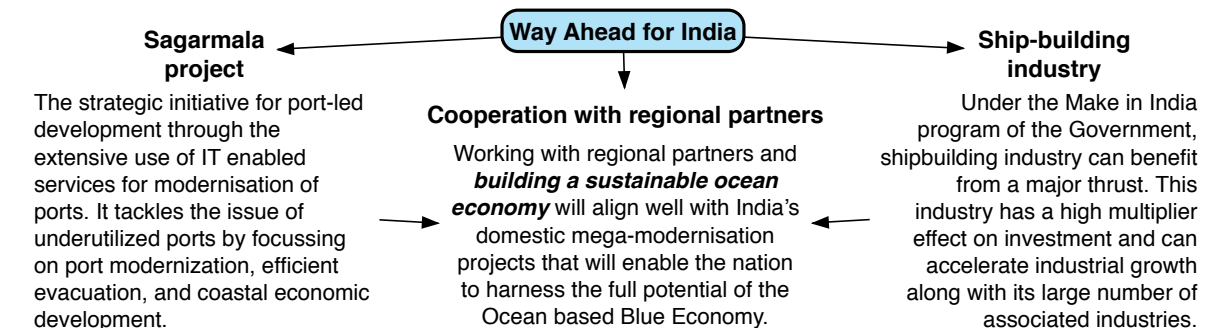
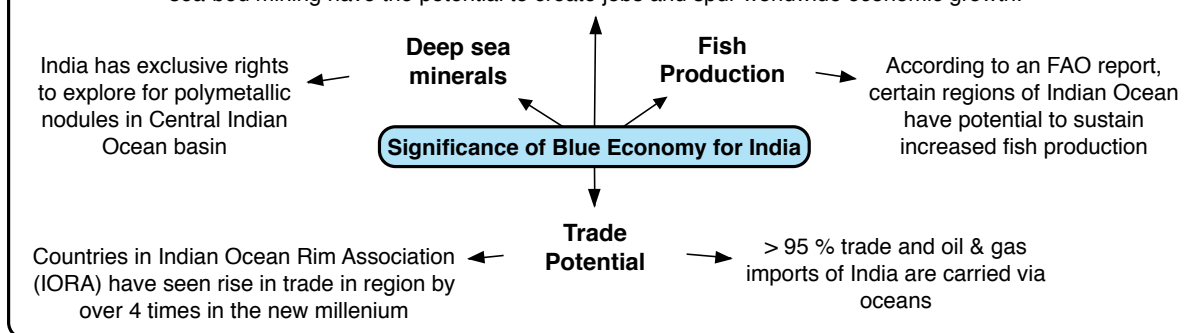
Commitment to the development of a 'Blue Economy' has been expressed by a mention in the budget speech. This has laid the foundation for implementation of a strategy to attain this objective.

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The **Blue Economy** is *sustainable* use of ocean resources for economic growth, improved livelihoods and jobs, while preserving the health of marine environment.



Emerging industries such as aquaculture, marine biotechnology, ocean energy and sea-bed mining have the potential to create jobs and spur worldwide economic growth.



BOTTOMLINE

Regional focus has turned towards the Indian Ocean as the new frontier for sustainable economic development, alongside concerns of security issues.

India should build on the momentum it has created thus far and take on a larger responsibility in developing and securing the Indian Ocean by developing ideas, norms and road maps for an inclusive and collaborative ocean governance society.

PRIVATISATION OF RAILWAYS

CONTEXT

- The Indian Railways is planning to purchase readymade trains, coaches, train sets, Electric Multiple Units (EMUs) from private manufacturers.
- Tejas Express train on the Delhi-Lucknow route is likely to become the first train which is to be operated by private entities.

◎ BACKGROUND

- The Indian Railways is among the world's 3rd largest rail networks. The Government of India has focused on investing on railway infrastructure by making investor-friendly policies.
- It has moved quickly to enable Foreign Direct Investment (FDI) in railways to improve infrastructure for freight and high-speed trains.
- At present, several domestic and foreign companies are also looking to invest in Indian rail projects.
- So far, the private sector's participation in railways has been very less in India, compared to sectors like ports, telecom, electricity, airports and roads.
- Several attempts have been made in the past to involve the private sector in various arenas like wagon procurement and leasing, freight trains and container operations, terminals and warehousing facilities, catering services, and other rail infrastructure through schemes framed by the ministry.
- But problems like policy uncertainty, absence of a regulator to create a level playing field, the lack of incentives for investors and procedural or operational issues have significantly restricted private sector participation.
- There are some major factories like Chennai-based Integral Coach Factory (ICF), which is owned by government from which Indian Railways procures trains and coaches.
- It has also produced the coaches of luxury to high-speed trains including Rajdhani Express, Shatabdi Express and the recently-inducted Vande Bharat Express (Train 18).

◎ ANALYSIS:

Reasons of Privatising Indian Railways

- The Indian Railways is one of the few government-owned enterprises which is incurring losses year-after-year.
- Indian Railways has not been able to keep pace with modernisation of its infrastructure and services and has not been able to expand at the pace and

coverage that a country like India needs.

- Almost all arms of the railways require modernisation of equipment, processes and training, all of which are still continuing as they have been, through the decades. The result is that the railways continue to be a drain on the exchequer, while continuing to provide vital services inefficiently.
- Freight fares in railways are kept high to cross-subsidize the passenger segment. Rail Development Authority has been approved to determine rail fares to enhance affordability and utilize capacity in an efficient manner.
- The perception is that almost all customer facing services like ticketing, ticket checking, porter services, catering and coach maintenance are not meeting people's expectations and standards as they should be and this is the main reason for public resentment and dissatisfaction with the railways.
- On the technical side, the railways lacks in providing proper services like track laying and maintenance, signal and transmission, engine & coach design and manufacture, engine and coach maintenance etc. All these services must all be given out to private companies that specialise in these.
- Railways owns large tracts of land along its tracks, in various parts of the country and this can be optimally monetised by inviting private players to invest, build and manage properties that may be developed on these lands.
- In this regard, Bibek Debroy Committee was constituted on September 22, 2014 to prepare a blueprint for reforming Indian Railways.

Bibek Debroy Committee

- The Railway Board had constituted a Committee for mobilization of resources for major railway projects and restructuring of Railway Ministry and Railway Board (Chair: Mr. Bibek Debroy).
- The Committee submitted its final report in June 2015, which has favoured privatisation of rolling stock: Wagons and Coaches.
- Committee has looked at the railway restructuring experiences from multiple countries, including Japan, the United Kingdom, Germany, Sweden,

Australia and USA.

- It focussed on the British experiment to achieve two main aims: changing the institutional structure between the government and the Indian Railways and increasing competition.
- It has also recommended amending the Indian Railways Act to allow the private operators to levy tariff.
- Committee adds that in case the infrastructure becomes profitable, there is no bar on the government to have its own operator in the interest of competition.

Arguments in Favour of Privatization of Indian Railways

• Improved Infrastructure

- A strong argument in favour of privatization is that it will lead to better infrastructure which in turn would lead to improved amenities for travellers.
- As opposed to mismanagement in form of stinking washrooms, lack of water supply and dirty platforms, it is expected that a private company will ensure better amenities.
- This would enable the Railways to procure the right global technology available.

• Balancing Quality of Service with High Fares

- Probably the most persistent complaint regarding Indian Railways is that the quality of services provided hardly matches up to the phenomenal charges paid by the travellers.
- Protagonists of privatisation feel that this problem will be solved when private players are allowed to enter the sector since the move would foster competition and hence lead to overall betterment in the quality of services.

• Lesser Accidents

- Any train-related mishap is like a nightmare come true for travellers and authorities alike courtesy of the physical, mental and financial trauma that ensues.
- Because private ownership is synonymous with better maintenance, supporters of privatisation feel that it will reduce the number of accidents, thus resulting in safe travel and higher monetary savings in the long run.

• Improved efficiency

- The main argument for privatisation is that private companies have a profit incentive to cut costs and be more efficient. If you work for a government run industry, managers do not

usually share in any profits.

- However, a private firm is interested in making a profit, and so it is more likely to cut costs and be efficient.

• Shareholders

- It is argued that a private firm has pressure from shareholders to perform efficiently. If the firm is inefficient then the firm could be subject to a takeover.
- A state-owned firm doesn't have this pressure and so it is easier for them to be inefficient.

• Increased competition

- Often privatisation of state-owned monopolies occurs alongside deregulation – i.e. policies to allow more firms to enter the industry and increase the competitiveness of the market.
- It is this increase in competition that can be the greatest spur to improvements in efficiency. For example, there is now more competition in telecoms and distribution of gas and electricity.
- However, privatisation doesn't necessarily increase competition; it depends on the nature of the market. E.g. there is no competition in tap water because it is a natural monopoly. There is also very little competition within the rail industry.

Arguments Against Privatization of Indian Railways

• Coverage Limited to Lucrative Sectors

- An advantage of Indian Railways being government-owned is that it provides nationwide connectivity irrespective of profit.
- This would not be possible with privatisation since routes which are less popular will be eliminated, thus having a negative impact on connectivity.

• Fares

- Given that a private enterprise runs on profit, it is but natural to assume that the easiest way of accruing profits in Indian Railways would be to hike fares, thus rendering the service out of reach for lower income groups.
- This will defeat the entire purpose of the system which is meant to serve the entire population of the country irrespective of the level of income.

• Accountability

- The recent spat in the Tata boardroom is testimony to the fact that private companies are unpredictable in their dealings and do not share their governance secrets with the world

at large.

- ▶ In such a scenario it would be difficult to pin the accountability on a particular entity, should there be a discrepancy.

• Unemployment

- ▶ This move would render thousands of railway employees in production and ancillary units jobless in the long run.

• Problem of regulating private monopolies

- ▶ Privatisation creates private monopolies and thus, it needs regulations to prevent abuse of monopoly power.

• Short-termism of firms

- ▶ To please shareholders, the private players may seek to increase short term profits and avoid investing in long term projects.
- ▶ For example, the UK is suffering from a lack of investment in new energy sources; the privatised companies are trying to make use of existing plants rather than invest in new ones.

• Concerns of a common man

- ▶ In the long-run, privatisation of railways may no longer be a low-cost common man's mode of transport and will be more on the lines of privatised services.

Challenges to privatisation

- The debate on privatization of Indian Railway services pertains to two aspects. One is the need to bring in private capital and the other is to privatize certain aspects of operation and services.
- The government needs to take bold steps on both accounts and this call for serious and proactive engagement with trade unions and political parties, to come to a common agreement.

- The trade unions have been resisting privatisation of existing operations and are also suspicious of any attempt to involve private capital.
- While this could be a welcome step, a change in thinking by the unions is the need of the day, otherwise the railways will continue to continue to bleed funds.
- Over the years, no political party has shown the political will to address this issue. As a result, the Indian Railways continues to remain a large and inefficient organisation, executing one of the most important tasks for the nation.

Way Forward:

- In order to sustain growth, modernisation and efficiency, the Indian Railways must redefine its role and responsibility. It has to completely reposition its operating role from being a direct service provider to being a supervisor of services provided.
- There is only one flip side to the privatisation of railways in India – and probably the most important one i.e., subsidised fares.
- In order to keep Indian Railways affordable for the lower strata of the society (post privatisation), the government must offer subsidies and tax incentives to companies that would provide low cost services, similar to low cost airlines, to these very pocket of population.
- This in the long run would not only make IR the largest but also the most efficient railway network in the World along with materialising the very objective and essence of Indian Railways — 'Lifeline to the Nation'.
- Railways need to remain affordable as an infrastructure for daily commuters more than anything else. Instead of speed and privatization, efficiency and affordability should be the primary focus.



Practice Question

- Do you think that Privatisation of Indian Railways is a good step? What are its disadvantages?



Privatisation of Railways

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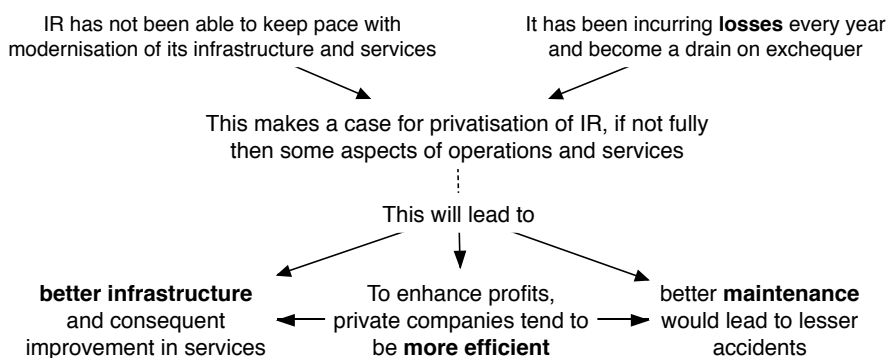
CONTEXT

The Indian Railways is planning to purchase readymade trains, coaches, train sets, Electric Multiple Units (EMUs) from private manufacturers. Besides, Tejas Express train on the Delhi-Lucknow route is likely to become the first train which is to be operated by private entities

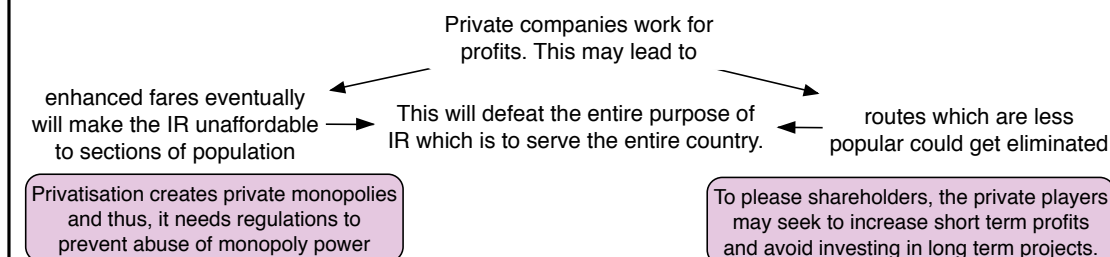
The Govt has focussed on several initiatives for investments in Indian Railways (IR) like FDI, etc

However, several problems like **policy uncertainty**, **absence of a regulator** to create a level playing field, the **lack of incentives** for investors and **procedural or operational issues** have significantly restricted private sector participation

Arguments in favour of privatisation



Arguments against privatisation



favoured privatisation of rolling stock: Wagons and Coaches
amending the Indian Railways Act to allow the **private operators to levy tariff**

Bibek Debroy Committee Recommendations
(for mobilisation of resources for major railway projects and restructuring of Railway Ministry and Railway Board)

changing the institutional structure between govt and IR
two main aims
increasing competition

The trade unions have been resisting privatisation
As a result, the IR continues to remain a large and inefficient organisation
No political party has shown the political will to address this issue

The debate on privatization of IR services pertains to two aspects.

need to bring in private capital
privatize certain aspects of operation and services

The government needs to take bold steps on both accounts call for serious and proactive engagement with trade unions and political parties, to come to a common agreement.

BOTTOMLINE

In order to sustain growth, modernisation and efficiency, the IR must redefine its role and responsibility. It has to completely reposition its operating role from being a direct service provider to being a supervisor of services provided.



There is only one flip side to the privatisation of railways in India i.e. subsidised fares. In order to keep Indian Railways affordable for the lower strata of the society (post privatisation), the government must offer subsidies and tax incentives to companies that would provide low cost services to these very pocket of population.

GLOBAL CARBON PROJECT REPORT

CONTEXT

- According to Global Carbon Project Report, global carbon emissions are an all-time high of 37.1 billion tonnes of CO₂ in 2018. India, the third-highest contributor, saw emissions rise by about 6.3% from 2017 in 2018

◎ BACKGROUND

- Since the Industrial Revolution, energy-driven consumption of fossil fuels has led to a rapid increase in CO₂ emissions, disrupting the global carbon cycle and leading to a planetary warming impact. It has been the dominant cause of observed warming since the mid-20th century. Temperature rise to date has already resulted in profound alterations to human and natural systems, including increases in droughts, floods, and some other types of extreme weather; sea level rise; and biodiversity loss – these changes are causing unprecedented risks to vulnerable persons and populations.
- In the wake of such alarming rising emissions leading to global warming and climate change, Global Carbon Project organisation was established in 2001 to quantify global greenhouse gas emissions and their causes. The Global Carbon Project collaborates with many groups to gather, analyse, and publish data on greenhouse gas emissions in an open and transparent fashion, making datasets available on its website and through its publications. Recently, it launched a Global Carbon Project Report highlighting several alarming emissions stats.

Global Carbon Project Report Highlights

- Global carbon dioxide emissions rose 1.6% in 2017, and new data indicates emissions could have risen more than 2% in 2018 on the back of sustained increases in coal, oil, and gas use.
- CO₂ emissions have now risen for a second year, after three years of little to no growth from 2014 to 2016. The rise in 2017 was 1.6%.
- The 10 biggest emitters in 2018 are China, U.S., India, Russia, Japan, Germany, Iran, Saudi Arabia, South Korea, and Canada. The EU as a region of countries ranks third.
- China's emissions accounted for 27% of the global total, having grown an estimated 4.7% in 2018 and reaching a new all-time high.
- Emissions in the U.S., which has withdrawn from its commitment to the Paris Agreement, account for 15% of the global total, and look set to have grown about 2.5% in 2018 after several years of decline.
- Despite the rapid deployment in low carbon technologies in India, emissions are expected to grow a solid 6.3% in 2018, pushed by strong economic growth of around 8% per year. Coal is still the mainstay of the Indian economy, and it will be a challenge for solar and wind to displace coal

given the strong growth in energy use.

- Limiting global warming to the 2015 Paris Agreement goal of keeping the global temperature increase this century to well below 2°C would need carbon dioxide emissions to decline by 50% by 2030 and reach net zero by about 2050.
- Also the IPCC Special Report reveals that at the current rate of emissions, the world is set to breach the global warming limit of 1.5 degree Celsius goal set in Paris Agreement between 2030 and 2052. At present, the world is 1.2°C warmer compared to pre-industrial levels.

◎ ANALYSIS

• Carbon and other Greenhouse Gas (GHG) emissions vis-à-vis India

- India with a growth rate of around 8% is one of the fastest growing countries and thus its energy demands and thereby Greenhouse Gas (GHG) Emissions is also rising at an alarming rate of about 6.3%.
- G20 Brown to Green Report 2018 says that India has one of the G20's highest growth rates in energy use per capita (15 per cent) between 2012 and 2017.
- India's greenhouse gas emissions more than doubled between 1990 and 2015 (+147 per cent), and that trend is expected to continue.
- IPCC report says that countries like India, with large populations dependent on the agricultural and fishery sectors, would be highly impacted. And thus, it should India must take the lead in forming a global coalition for a 1.5°C world to save its poor and vulnerable population.

• Sector Wise Emission Estimates (2005 -2013)

- The energy sector contributes 63% to the overall emissions while the Industry sector contributes to almost 26% to the overall emissions.
- AFOLU (Agriculture, Forestry and other Land Use) sector forms almost 7% (with Land Use, Land Use Change and Forestry (LULUCF)) of the total emissions while the waste sector contributes 4% to the national level estimates.

• Impact on India

- The most affected people live in low and middle income countries, some of which have experienced

a decline in food security, which in turn is partly linked to rising migration and poverty. India is among the countries most vulnerable to climate change. It has one of the highest densities of economic activity in the world, and very large numbers of poor people who rely on the natural resource base for their livelihoods, with a high dependence on rainfall. By 2020, pressure on India's water, air, soil, and forests is expected to become the highest in the world.

1. CLIMATIC FACTORS: RAINFALL AND TEMPERATURE

- ▶ A decline in monsoon rainfall since the 1950s has already been observed. Also, the summer heat has arrived early the past few years across India. Each year since 2016 there has been high temperatures in excess of 38°C in most of India during the second half of March.
- ▶ A 2°C rise in the world's average temperatures will make India's summer monsoon highly unpredictable.
- ▶ An abrupt change in the monsoon could precipitate a major crisis, triggering more frequent droughts as well as greater flooding in large parts of India.
- ▶ Unusual and unprecedented spells of hot weather are expected to occur far more frequently and cover much larger areas.
- ▶ Under 4°C warming, the west coast and southern India are projected to shift to new, high-temperature climatic regimes with significant impacts on agriculture.

Suggestion

- ▶ Improvements in hydro-meteorological systems for weather forecasting
- ▶ Installation of flood warning systems can help people move out of harm's way before a weather-related disaster strikes.
- ▶ Better urban planning to counter urban-heat islands and enforcing building codes to ensure homes and infrastructure are not at risk.

2. AGRICULTURE AND FOOD SECURITY

- ▶ **Decline in Agricultural Productivity:**
 - Seasonal water scarcity due to large scale dependent on monsoon and rising temperatures will directly affect the agricultural productivity.
 - Intrusion of sea water, changes in soil moisture and the distribution and frequency of infestation by pests and diseases will indirectly affect the agricultural productivity.
 - According to IPCC, Agricultural productivity in India was estimated to decrease by 2.5 to 10 % by 2020 to 5 to 30 % by 2050.
- ▶ Nutritional security will be under threat as increased carbon dioxide reduce the

concentrations of protein and essential minerals in most plant species, including wheat, soybeans, and rice.

- ▶ Livestock will be affected due to rising heat change as it increases their vulnerability to disease, reducing fertility, and declining milk production.
- ▶ Fisheries will be affected as changes in temperature and seasons can affect the timing of reproduction and migration.

Suggestions

- ▶ Crop diversification, more efficient water use, and improved soil management practices, together with the development of drought-resistant crops can help reduce some of the negative impacts.
- ▶ India has already taken few steps like precision farming, modern irrigation techniques, soil health card schemes, interlinking of rivers etc. to adapt climate SMART Agriculture.

3. SEA LEVEL RISE AND GLACIER MELTS

India has a long coastline of about 7500 km and focus for a variety of activities including industry, agriculture, recreation and fisheries with numerous big cities like Mumbai located along the coasts. Also India is surrounded by glaciers in the northwest whose melting may cause disastrous effects.

- ▶ With India close to the equator, the sub-continent would see much higher rises in sea levels than higher latitudes.
- ▶ Sea-level rise and storm surges would lead to saltwater intrusion in the coastal areas, impacting agriculture, degrading groundwater quality, contaminating drinking water.
- ▶ Rise in vector-borne diseases like diarrhoea and cholera outbreaks, as the cholera bacterium survives longer in saline water.
- ▶ At 2.5°C warming, melting glaciers and the loss of snow cover over the Himalayas are expected to threaten the stability and reliability of northern India's primarily glacier-fed rivers, particularly the Indus and the Brahmaputra.
- ▶ Alterations in the flows of the Indus, Ganges, and Brahmaputra rivers could significantly impact irrigation, affecting the food security and also flooding the lower lying states.

Suggestions

- ▶ Strictly enforce building codes and better urban planning for climate-related disasters.
- ▶ Built coastal embankments wherever necessary and enforce coastal regulation zone codes.
- ▶ Major investments in water storage capacity would be needed to benefit from increased river flows in spring and compensate for lower flows later on.

4. ILLNESS AND DISEASE

- ▶ The impact of climate change has been considerably enough to threaten human health both directly and indirectly through increasing temperatures, rising sea levels, water and food supply impacts, extreme weather events like floods, droughts, earthquakes, etc.
- ▶ Extreme weather related health effects – heat waves, cold waves, extremely abnormal higher rainfalls increase the risks of health-related illness and even death for most vulnerable populations.
- ▶ Air pollution related health effects – particulate matters leading to cardiovascular diseases, asthma episodes and other respiratory diseases.
- ▶ Vector borne diseases - warmer temperatures allow disease-carrying insects, animals and microbes to survive in areas where they were once blocked by cold weather.

Suggestion

- ▶ Strengthening health systems and service delivery mechanisms.
- ▶ Provision of drinking water and sanitation facility to all.
- ▶ Provision of funding for low income communities with poor sheltering and high exposure/risk to heat and cold waves.
- ▶ Educating people about climate-related diseases.

5. BIODIVERSITY

India's biodiversity is highly vulnerable to climate change:

- ▶ A new study by Dehradun-based Wildlife Institute of India (WII) has revealed that the upper reaches of the Himalayas are warming and there has been a rise of at least 0.5 degrees Celsius in the temperature of the area, accompanied by an almost 10 per cent variation in humidity levels.
- ▶ This has led to melting of glaciers, degradation and fragmentation of mountain biodiversity. There can be an increase in the phenomenon of Glacial Lake Outburst Floods (GLOF).
- ▶ The temperature variation is affecting plants and consequently, animals, in the Himalayan region. Change in flowering patterns and budding of leaves lead to change in activities of insects and thereby birds thereby affecting the entire cycle of the area.

- ▶ Ocean Acidification - increased concentration of carbon dioxide (CO₂) in the atmosphere has increased the absorption of CO₂ in the ocean, which reduces the pH and makes the oceans more acidic. This affects the marine species, including plankton, molluscs, and other shellfish.
- ▶ Coral Reefs: It also affects the coral reefs as they are very sensitive to rising acidity, as it is difficult for them to create and maintain the skeletal structures needed for their support and protection.

India's Efforts

- India has set out Intended Nationally Determined Contribution (INDC) in line with Paris agreement –
 - ▶ Reduction in the emissions intensity of its GDP by 33 to 35 per cent by 2030 from 2005 level ;
 - ▶ Create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.
 - ▶ Achieve about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030
- India formed a global solar alliance, INSPA (International Agency for Solar Policy & Application) to promote solar energy production.
- India's National Action Plan on Climate Change (NAPCC) which covers eight major missions on Solar, Enhanced Energy Efficiency, Sustainable Habitat, Water, Sustaining the Himalayan Ecosystem, Green India, Sustainable Agriculture and Strategic Knowledge on Climate Change
- Smart cities, electric vehicles (FAME scheme for e-mobility), energy efficiency initiative.
- Leapfrogging from Bharat Stage -IV to Bharat Stage-VI emission norms by April 2020
- Schemes like UJALA for LED distribution has crossed the number of 320 million while UJJWALA for distributing clean cooking stoves to women below poverty line has covered more than 63 million households.
- As per India's second Biennial Update Report (BUR) to UNFCCC emission intensity of India's GDP came down by 21% between 2005 & 2014 and India's achievement of climate goal for pre-2020 period is on track.

Thus India has taken a series of initiatives to adapt and combat climate change. So far, an assessment of India's capacity to undertake a low-carbon transition may well provide a reliable template for developing countries to emulate.



Practice Question

- Evaluate the various initiatives taken by the Government of India to curb GHGs emissions and achieve a sustainable economy.



Global Carbon Project Report

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CONTEXT

According to Global Carbon Project Report, global carbon emissions are an all-time high of 37.1 billion tonnes of CO₂ in 2018

They rose 1.6% in 2017, and new data indicates emissions could have risen more than 2% in 2018. The emissions have now risen for a second year, after three years of little to no growth from 2014 to 2016. The rise in 2017 was 1.6%. India, the third-highest contributor, saw emissions rise by about 6.3% from 2017 in 2018

Other highlights of the report

China and USA have risen 4.7 and 2.5% respectively to 27% and 15% of the total global emissions followed by India at third position.

Limiting global warming to the 2015 Paris Agreement goal of keeping the global temperature increase this century to well below 2°C would need carbon dioxide emissions to **decline by 50% by 2030 and reach net zero by about 2050.**

Coal is the mainstay of Indian economy and it will be a challenge for solar and wind power to displace coal, given strong growth in energy use as evident by 7-8% economic growth.

According to IPCC Special Report

As of now, the world is **1.2°C warmer** compared to pre-industrial levels

the world is set to breach the global warming limit of 1.5°C goal set in Paris Agreement **between 2030 and 2052**

will adversely affect coastal economy and livelihood

This in turn will affect agricultural productivity and food security

sea level rise, glacial melts

IPCC report says that countries like India, with large populations dependent on the agricultural and fishery sectors, would be highly impacted.

monsoon and summer heat will be severely affected

India has one of the highest densities of economic activity in the world

a very large numbers of poor people rely on the natural resource base for their livelihoods, with a high dependence on rainfall

By 2020, pressure on India's water, air, soil, and forests is expected to become the highest in the world.

India's initiatives to combat climate change

Smart cities, electric vehicles, **energy efficiency** initiatives.

Schemes like **UJALA for LED** and **UJJWALA** for distributing **clean cooking stoves** to BPL families

A jump from **BS -IV to BS-VI** emission norms by April 2020

National Action Plan on Climate Change (NAPCC) which covers eight major missions on Solar, Enhanced Energy Efficiency, etc.

formed a **global solar alliance** to promote solar energy production.

Intended Nationally Determined Contribution (INDC) in line with Paris agreement

Reduction in the emissions intensity of its GDP by 33-35 % by 2030 from 2005 level

Achieve about 40% cumulative electric power installed capacity from **non-fossil fuel based energy resources** by 2030

Create an **additional carbon sink** of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030

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NATIONAL INVESTIGATION AGENCY (AMENDMENT) BILL 2019

CONTEXT

- Parliament passed the National Investigation Agency (Amendment) Bill, 2019 to give a big push to India's national security. The main aim of this new bill is to give more power to the National Investigation Agency or NIA, India's premier anti-terrorism agency. The Bill amends the NIA Act 2008.

◎ BACKGROUND

- Over the past several years, India has been the victim of large scale terrorism sponsored from across the borders. There have been innumerable incidents of terrorist attacks, not only in the militancy and insurgency affected areas and areas affected by Left Wing Extremism, but also in the form of terrorist attacks and bomb blasts in various parts of the hinterland and major cities. A large number of such incidents are found to have complex inter-State and international linkages, and possible connection with other activities like the smuggling of arms and drugs, pushing in and circulation of fake Indian currency, infiltration from across the borders.
- Keeping all these in view, it was felt that there was a need for setting up of an Agency at the Central level for investigation of offences related to terrorism and certain other Acts, which have national ramifications. Finally in the wake of 2008 Mumbai terror attacks, the Government had enacted the National Investigation Agency Act on 31-12-08 and the National Investigation Agency (NIA) was established as a central agency to combat terror in India. It acts as the Central Counter Terrorism Law Enforcement Agency in India. The agency is empowered to deal with terror related crimes across states without special permission from the states.

JURISDICTION

- The Agency has been empowered to conduct investigation and prosecution of offences under the Acts specified in the Schedule of the NIA Act.
- A State Government may request the Central Government to hand over the investigation of a case to the NIA, provided the case has been registered for the offences as contained in the schedule to the NIA Act.
- Central Government can also order NIA to take over investigation of any scheduled offense anywhere in the India.

- Officers of the NIA who are drawn from the Indian Revenue Service, Indian Police Service, state police, Income Tax as well as officers from the Central Armed Police Forces, have all powers, privileges and liabilities which the police officers have in connection with investigation of any offense.

◎ ANALYSIS

NEED FOR AMENDMENT

India is currently facing rising number of serious issues which are still not addressed by any specific organization. NIA with its vast expertise is well equipped to address the following issues and thus its scope needs to be enhanced.

- Human trafficking:** Human trafficking in India, although illegal under Indian law, remains a significant problem. The most current available data from the National Crime Records Bureau (NCRB) indicate that there were 8,132 reported cases of human trafficking across India in 2016. In the same year, 15,379 people were trafficked of whom 9,034 victims were below the age of 18.
- Drug abuse:** A report by Ministry of Social Justice and Empowerment establishes that a substantial number of people use psychoactive substances in India, and substance use exists in all the population groups, but adult men bear the brunt of substance use disorders. According to it, about 14.6 % people are users of alcohol. About 2.8% of Indians report having used any cannabis product within past 12 months. Nationally, it is estimated that there are about 8.5 Lakh People Who Inject Drugs (PWID).
- Cybercrime:** According to National Crime Records Bureau (NCRB), there were about 12,317 cybercrime cases in 2016. This is a 6% rise as compared to 2015.
- Fake currency menace:** The number of fake notes of Rs 2,000 jumped to 17,929 in fiscal 2018 — a 2710 per cent increase from 638 pieces in 2016-17. Similarly, 9,892 pieces of counterfeit notes were detected in the new Rs 500 banknotes in 2017-18

— a 4178 per cent jump from 199 in the previous fiscal.

Issues with NIA Act

- **Constitutionality:** NIA had assumed jurisdiction over a Scheduled Offence even suo moto whereas the areas of policing and public order lie within the exclusive legislative competence of the States. So the States have been extremely wary of accepting or cooperating with any agency that encroached on that power.
- **Lack of Infrastructural Support:** The NIA has no officers specialising in cyber surveillance, explosives or tracing chemicals and has been forced to ask companies to decrypt computers recovered at crime scenes.
- **Failure to avoid politicisation:** It has been repeatedly seen that the functioning of the investigation and prosecution agencies depend on political mandate. This raises serious doubts on the credibility on national institutions.
- **Institutionalised Delay:** Act states that once the State government receives a report on a Scheduled Offence, it shall forward the report to the Central government as expeditiously as possible. It is unclear why the Act does not compel the State government to provide the report to Central government with a much shorter window of time.
- **Lack of Scope:** The scope of what the NIA will investigate is paradoxically insufficient and potentially too broad. The NIA is not empowered to investigate a number of interstate and transnational crimes that require a national response. For example, human trafficking, drug trafficking, cybercrime and organised crime are not included in the Schedule of Offences to the NIA Act.

Therefore, to address the shortcomings in the original National Investigation Agency Act 2008, recently Parliament amended the Act to give more teeth to National Investigation Agency.

Amendments

There are three major amendments to the original NIA Act of 2008:

- **Scheduled offences:**
 - In addition to the offences under Acts such as the Unlawful Activities (Prevention) Act, 1967, Atomic Energy Act, 1962, Anti-Hijacking Act, 1982, Suppression of Unlawful Acts Against Safety of Maritime Navigation and Fixed Platforms on Continental Shelf Act, 2002 etc.
 - The Bill also seeks to allow the NIA to investigate the following offences, in addition: (i) human trafficking, (ii) offences related to counterfeit currency or bank notes, (iii) manufacture or sale

of prohibited arms, (iv) cyber-terrorism, and (v) offences under the Explosive Substances Act, 1908.

• Jurisdiction of the NIA

- In addition to investigate and prosecute offences across India, officers of the NIA will have the power to investigate scheduled offences committed outside India, subject to international treaties and domestic laws of other countries.
- The central government may direct the NIA to investigate such cases, as if the offence has been committed in India.
- The Special Court in New Delhi will have jurisdiction over these cases.

• Special Courts:

- The original Act allows the central government to constitute Special Courts for the trial of scheduled offences.
- The Bill amends this to state that the central government may designate Sessions Courts as Special Courts for the trial of scheduled offences.
- Further, state governments may also designate Sessions Courts as Special Courts for the trial of scheduled offences.

These amendments are welcome as they give more powers to National Investigation Agency to expeditiously investigate and prosecute offences across national and transnational borders. However, there are still certain challenges that have arisen due to new amendments.

Challenges

- Wary of misuse – The amendments provide sweeping powers to the police officers which can be misused for political vendetta.
- Against federalism – Policing powers under Constitution remains with the State Government. Giving more powers to NIA officers and widening the scope of crimes interferes into the functioning of state police.
- Dismal prosecution rate and rising insurgency issues - There are concerns that owing to dismal prosecution rate here in the country so far and rising of insurgents group like United Liberation Front of Assam (ULFA) National Democratic Front of Boroland (NDFB), how reasonable effective it would be to provide more territorial powers.
- The issue of political interference in the investigation matters of NIA still remain unaddressed.

Way Forward

- NIA should cooperate with State governments,

irrespective of their political affiliation, and win the long term confidence of ordinary people by providing expeditious justice.

- Independent professionals from outside must be hired to include in the decision making process of deciding whether the NIA should investigate a certain Scheduled offence to avoid maintain integrity and impartiality.
- To make NIA different and much more effective, its shortfalls must be debated openly and honestly. It should draw in a variety of voices, and incorporate checks and balances that will minimise the possibility of failure.
- It should be given necessary powers to prevent the enumerated offences rather than simply powers of investigation and enforcement. It should be allowed to share, collect, collate, analyse and disseminate the intelligence with other intelligence agencies to integrate and enhance India's security system.

Conclusion

- India's security perspectives would inevitably be governed by the interplay of its domestic imperatives, regional balance of forces and the global challenges which impinge on its role and capabilities. An overarching framework of India's national security has to take cognisance of military and non-military dimensions in terms of both external threats and internal challenges to its territorial integrity and national unity. Threats to a nation emanate as much from external aggression as from internal strife but at times internal factors can erode national security more critically than any external danger.
- In this significance, a strong and independent National Investigation Agency can make Indians more secure by addressing the gaps in our current approach to preventing and investigating offences with a transnational character.



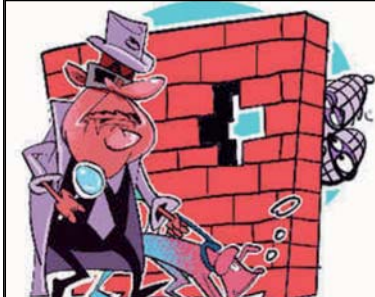
Practice Question

- India faces both external threats and internal challenges to its territorial integrity and national unity. How far the recent amendments to NIA Act would help in addressing them? Examine

NIA (Amendment) Bill, 2019

CONTEXT

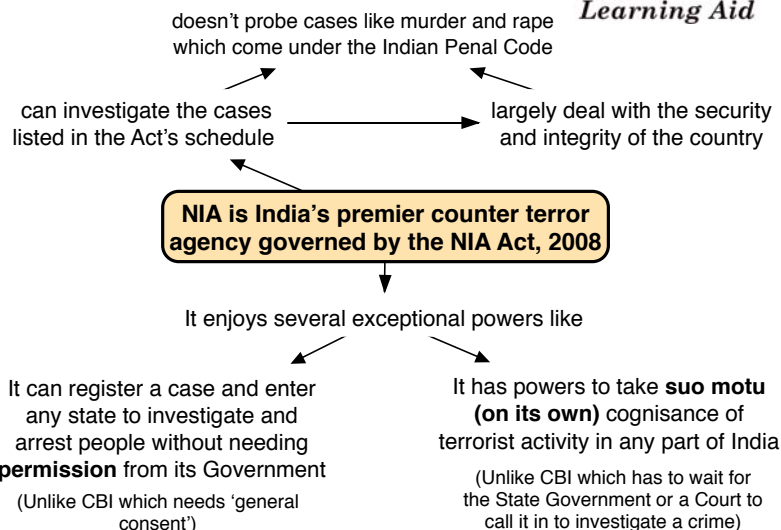
The National Investigation Agency (Amendment) Bill, 2019 was unanimously passed by Rajya Sabha recently. After being passed by both the Houses, the NIA now would receive the powers to investigate **terror crimes** relating to **Indians and Indian interests abroad**



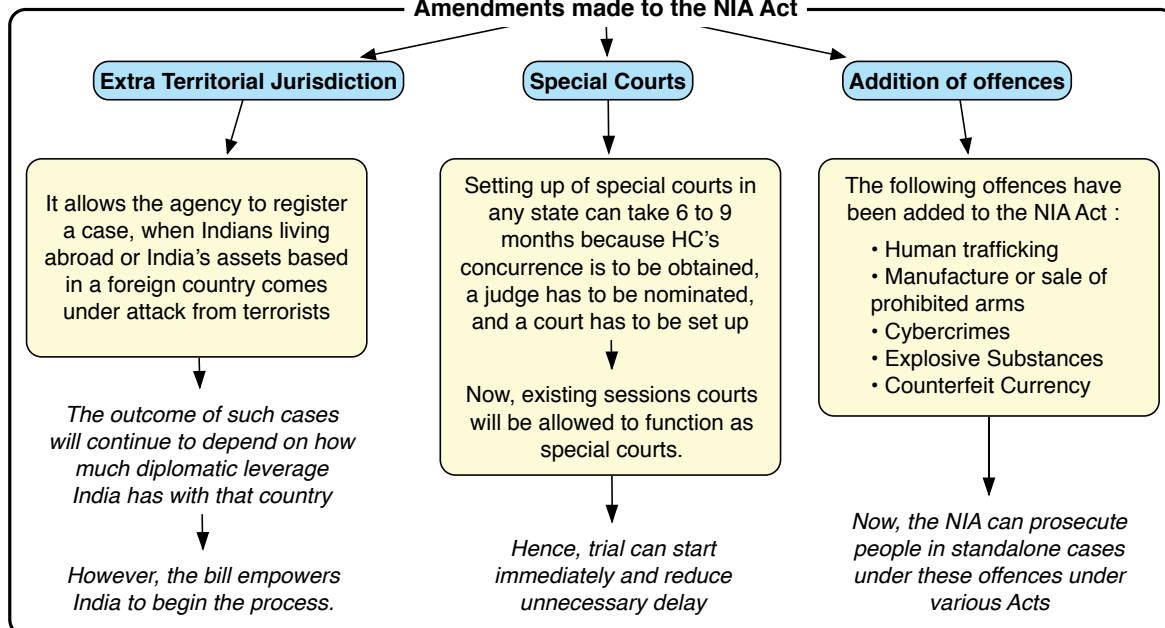
Background about NIA

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Amendments made to the NIA Act



Some Challenges

Against federalism – Giving more powers to NIA officers and widening the scope of crimes could interfere into the functioning of state police

Wary of misuse – The amendments provide sweeping powers to the police officers which can be misused for political vendetta

Political interference - The issue of political interference in the investigation matters of NIA still remain unaddressed

What more can be done to make NIA more effective and impartial?

It should be given necessary powers to **prevent** the enumerated offences rather than simply powers of investigation and enforcement.

to maintain integrity and impartiality

↓

independent professionals from outside could be hired to include in the decision making process of deciding whether the NIA should investigate a certain Scheduled offence

It should be allowed to coordinate intelligence inputs with other intelligence agencies to integrate and enhance India's security system.

EFFECTIVENESS OF ANTI-DEFECTION LAW

CONTEXT

- At least 16 MLAs of ruling party of Karnataka Assembly had recently tendered their resignations, and with the two independents' support also withdrawn, the HD Kumaraswamy-led government is in a state of quandary.

The Anti Defection Law and Its purpose

- Aaya Ram Gaya Ram was a phrase that became popular in Indian politics after a Haryana MLA Gaya Lal changed his party thrice within the same day in 1967. After such incidents, a need was felt to prevent such political defections which may be due to reward of office or other similar considerations.
- The Anti-Defection Law was passed in 1985 through the 52nd Amendment to the Constitution, which added the Tenth Schedule to the Indian Constitution. The main intent of the law was to combat "the evil of political defections".

Anti-Defection provisions under the Tenth Schedule

• Disqualification

- If a member of a house belonging to a political party:
- Voluntarily gives up the membership of his political party, or
- Votes, or does not vote in the legislature, contrary to the directions of his political party.
- However, if the member has taken prior permission, or is condoned by the party within 15 days from such voting or abstention, the member shall not be disqualified.
- If an independent candidate joins a political party after the election.
- If a nominated member joins a party six months after he becomes a member of the legislature.

• Power to Disqualify

- The Chairman or the Speaker of the House takes the decision to disqualify a member.
- If a complaint is received with respect to the defection of the Chairman or Speaker, a member of the House elected by that House shall take the decision.

• Exception - Merger

- A person shall not be disqualified if his original political party merges with another, and:
 - He and other members of the old political party become members of the new political party, or

- He and other members do not accept the merger and opt to function as a separate group.
- This exception shall operate only if not less than two-thirds of the members of party in the House have agreed to the merger.

Whip and its Role

- The office of 'whip' is mentioned neither in the Constitution of India nor in the Rules of the House nor in a Parliamentary Statute. It is based on the conventions of the parliamentary government.
- A whip in parliamentary parlance is a written order that party members be present for an important vote, or that they vote only in a particular way.
- In India all parties can issue a whip to their members. Parties appoint a senior member from among their House contingents to issue whips.
- The importance of a whip can be inferred from the number of times an order is underlined:
 - A one-line whip, underlined once, is usually issued to inform party members of a vote, and allows them to abstain in case they decide not to follow the party line.
 - A two-line whip directs them to be present during the vote.
 - A three-line whip is the strongest, employed on important occasions such as the second reading of a Bill or a no-confidence motion, and places an obligation on members to toe the party line.

● ANALYSIS

Main Issue(s) with the Law

- Whether the right to freedom of speech and expression is curtailed by the Tenth Schedule.**
 - The Supreme Court in Kihota Hollohon Case has held that the provisions do not subvert the democratic rights of elected members in Parliament and state legislatures. It does not violate their conscience. The provisions do not violate any right or freedom under Articles 105 and 194 of the Constitution.

- ▶ The court made it clear that it was only in matters pertaining to confidence motion/ no confidence motion and matters integral to party's policy based on which it enjoys support of the electorate, that a legislator is bound by direction issued by the party.
- **Whether only resignation constitutes voluntarily giving up membership of a political party**
 - ▶ Voluntarily giving up the membership is not the same as resigning from a party. The Supreme Court in *Ravi S. Naik v. Union of India* has held that the words "voluntarily giving up membership" have a wider meaning. An inference can also be drawn from the conduct of the member that he has voluntarily given up the membership of his party.
- **Whether a member can be said to voluntarily give up his membership of a party if he joins another party after being expelled by his old political party**
 - ▶ According to Supreme Court in *G. Vishwanathan v. Honourable Speaker, Tamil Nadu Legislative Assembly*, once a member is expelled, he is treated as an 'unattached' member in the house. However, he continues to be a member of the old party as per the Tenth Schedule. So if he joins a new party after being expelled, he can be said to have voluntarily given up membership of his old party.
- **Finality to the decision of the Speaker/ Chairman**
 - ▶ According to Article 109(3) of the Constitution, the speaker has to satisfy himself that the resignations are voluntary and genuine and can reject them if he feels they are not. The Speaker has absolute discretion in this matter. The High Courts and the Supreme Court can exercise judicial review under the Constitution. Judicial review should not cover any stage prior to the making of a decision by the Speakers/ Chairmen.
 - ▶ The irony is that the office of the Speaker which is of paramount significance in a parliamentary democracy at times seems to tow the political party's line by flouting well established principles of law. Speakers have not acted as impartial umpires generally on issues related to defection because they invariably come from the ruling party.
 - ▶ For example, in the last Parliament, there was a no confidence motion tabled by a set of MPs. The Speaker refused to consider this, saying that there was too much disturbance in the Lok Sabha, but during the same period allowed the

Finance Bill to be passed without discretion.

▶ **Scenario of Karnataka**

- The Rebel MLAs have moved a plea in the Supreme Court against the Speaker over the delay in acceptance of their resignations.
- The speaker who hails from the ruling Party (Congress), is trying not to accept the resignations of the rebel MLAs. As a result, they (rebel MLAs) will continue to remain members of the ruling party (the Congress) and if, the party has the issues a whip and if they don't attend the House, they will face the consequences under the provisions of Anti-Defection.
- Despite two directions from Karnataka Governor to Chief Minister H.D. Kumaraswamy to hold the trust vote on Friday, the process got put off to Monday, with Speaker adjourning the Assembly.

• **Arguments in Favour of Anti Defection Law**

- ▶ Provides stability to the government by preventing shifts of party allegiance.
- ▶ Ensures that candidates elected with party support and on the basis of party manifestoes remain loyal to the party policies. Also promotes party discipline.

• **Arguments Against Anti Defection Law**

- ▶ By preventing parliamentarians from changing parties, it reduces the accountability of the government to the Parliament and the people.
- ▶ Interferes with the member's freedom of speech and expression by curbing dissent against party policies.

◎ **SUGGESTIONS**

- ▶ Dinesh Goswami Committee on electoral reforms (1990) suggested that the issue of disqualification should be decided by the President/ Governor on the advice of the Election Commission.
- ▶ Halim Committee on anti-defection law suggested that the words 'voluntarily giving up membership of a political party' and the term 'political party' be comprehensively defined.
- ▶ Law Commission (170th Report, 1999) suggested that the Political parties should limit issuance of whips to instances only when the government is in danger.
- ▶ Election Commission suggested that decisions under the Tenth Schedule should be made by the President/ Governor on the binding advice of the Election Commission.

- Constitution Review Commission (2002) suggested that the vote cast by a defector to topple a government should be treated as invalid and that the defectors should be barred from holding public office for the duration of the remaining term.

Conclusion

- The law certainly has been able to curb the evil of defection to a great extent. Political instability

caused by frequent and unholy change of allegiance on the part of the legislators of our country has been contained to a very great extent. But, of late, a very alarming trend of legislators defecting in groups to another party in search of greener pastures is visible. The recent examples of defection in state Assemblies and even in Rajya Sabha bear this out. It is time for the Parliament to take into consideration the important suggestions recommended by various committees and the Honourable Supreme Court and plug the loopholes



Practice Question

- 'Anti Defection law has failed to serve its purpose'. Examine the statement in the light of recent events in the various state assemblies of India.



CONTEXT

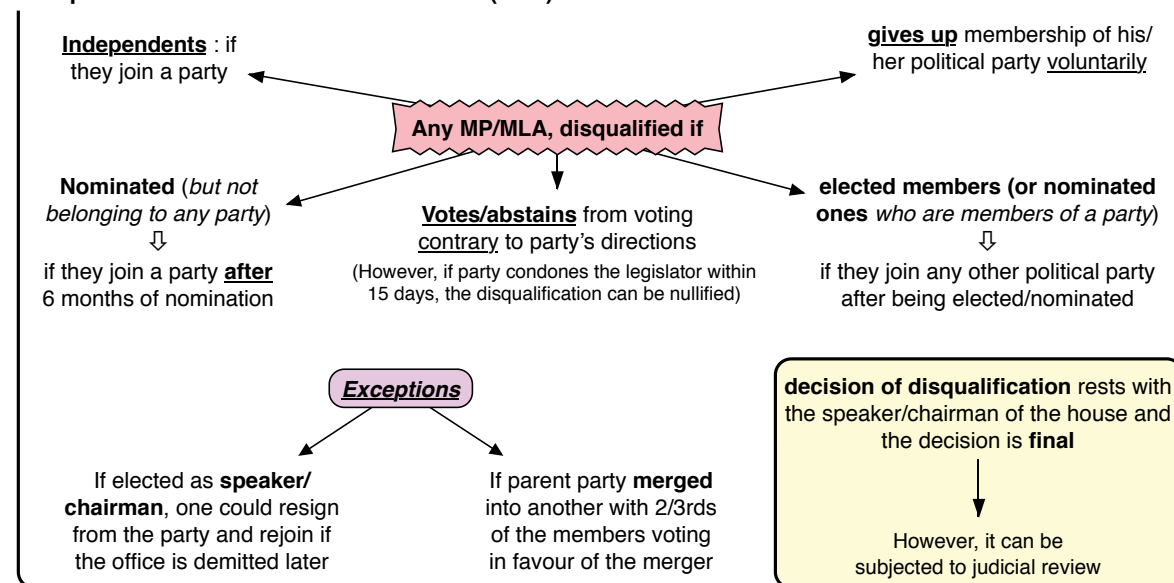


At least 16 MLAs of ruling party of Karnataka Assembly recently tendered their resignations, leading to a political imbroglio.

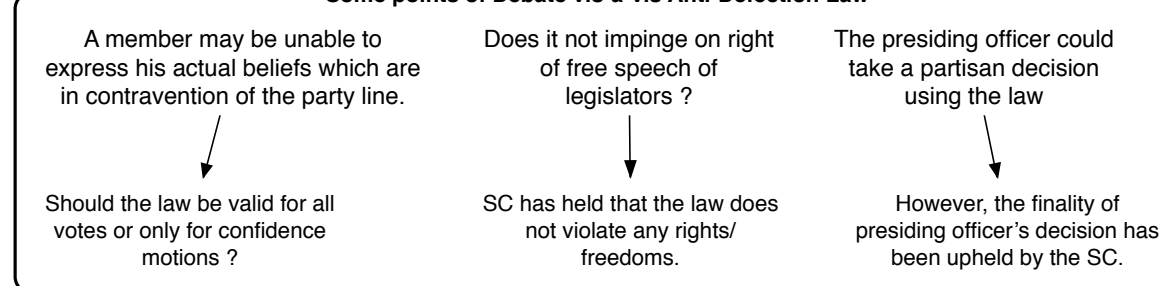
The incident has again brought to the limelight the provisions of the Anti-defection law which was passed in 1985 through the **52nd Constitutional Amendment**, which added the **Tenth Schedule** to the Indian Constitution. The main intent of the law was to combat "the evil of political defections"

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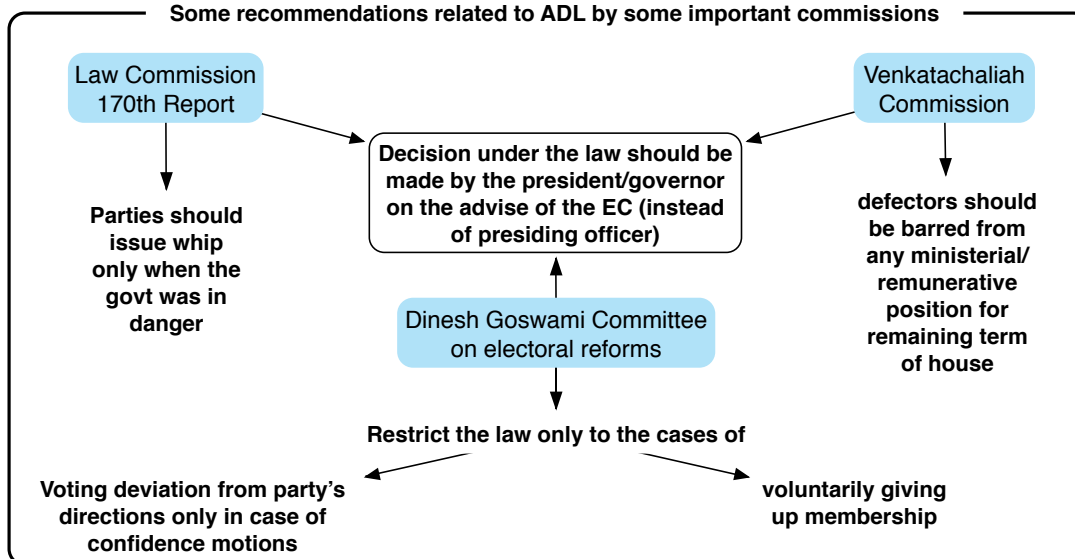
Main provisions of the Anti Defection Law (ADL)



Some points of Debate vis-a-vis Anti-Defection Law



Some recommendations related to ADL by some important commissions



AIDS AS A GLOBAL CONCERN

CONTEXT

- The Joint UN programme on AIDS, commonly known as UNAIDS, is facing one of the worst challenges afflicting the global AIDS response — this time an existential threat questioning its very relevance.
- The UN Secretary-General, António Guterres, is expected to appoint a new executive director after the departure of Michel Sidibé in May 2019 on the recommendation of the programme coordinating board which manages the organisation.

◎ ABOUT:

- Considering AIDS as a 'Global concern', this article intends to comprehensively review causal factors and treatment mechanisms - with more focus on community response.

◎ BACKGROUND:

- In 2017, HIV prevalence among adults (aged 15-49) was an estimated 0.2%. This figure is small compared to most other middle-income countries but because of India's huge population (1.3 billion people) this equates to 2.1 million people living with HIV.

AIDS at Global level:

- Despite the recent mobilization of donor funds, resources are strained, and the capacity of the health care systems to absorb the increasing treatment load is precarious.
- Ensuring adequate institutional and human resources to meet the challenges of HIV/AIDS in 10 to 15 years into the future will therefore require visionary strategic planning and investments in capacity building - more so with the active assistance of Community led participation.
- Before one digs deeper into the subject, it is desired to run through some important bodies and programmes - concerning AIDS.

National AIDS Control Organization

- The National AIDS Control Programme (NACP), launched in 1992, is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India. Over time, the focus has shifted from raising awareness to behavior change, from a national response to a more decentralized response and to increasing involvement of NGOs.

UNAIDS

- UNAIDS is working towards stopping new HIV infections, ensuring that everyone living with HIV has access to HIV treatment, protecting and promoting human rights and producing data for

decision-making.

- UNAIDS is working towards ensuring that, by 2020, 30 million people have access to treatment through meeting the 90-90-90 targets, whereby 90% of people living with HIV know their HIV status, 90% of people who know their HIV-positive status are accessing treatment and 90% of people on treatment have suppressed viral loads

UN Political Declaration on Ending AIDS 2016

- This Political declaration was adopted by Member States at the United Nations General Assembly High-Level Meeting on Ending AIDS epidemic by 2030 within the framework of the Sustainable Development Goals.

◎ ANALYSIS

- People centric policies and programmes drive in success. The current section will take a nuanced approach in finding the efficacy of community driven approaches and the course correction pathways.

AIDS and Indian response:

- India's National AIDS Control Programme (NACP), implemented by the National AIDS Control Organization (NACO) under the Ministry of Health and Family Welfare, is one of the most successful public health programmes in India.
- India's efforts to promote safe sex among such people will play significant role in determining the success of its campaign.
- This argument is strengthened by the fact that India witnessed a decline of HIV prevalence among MSM from 7.41 per cent in 2007 to 4.43 per cent in 2011.

Importance of Community participation in HIV research and treatment:

- This is dependent upon following Community participation in letter and spirit, i.e. -
- Trials/investigators should engage and create partnerships with stakeholder groups within the host community as well as with those at the national

level, and build their capacity to understand and engage meaningfully with the research process

- Trials/investigators and global/international advocacy groups should work together in future trials to identify grassroots-level contact persons who they should nurture early in the trial process into community advocates to promote awareness, mobilize the community, monitor trial progress, and provide feedback from the community
- Civil society groups and advocates should build their capacity in biomedical HIV prevention research advocacy through networking and sharing information with research institutions and global advocacy organizations so they can better engage with the research process and advocate for changes or actions deemed important
- The media should take initiative to build their own capacity in reporting on biomedical HIV prevention research clinical trials by seeking and sharing information and networking with trial investigators and advocates
- Local leaders, politicians and opinion leaders should invest time and resources in understanding trial processes, and seek partnerships with trial investigators and advocates in their communities
- Future trials should consider broadcasting and publishing an official public statement of research results in the mass media, with a clear and full explanation of the key messages.

Factors that determine success of community approach in India

- Take a case study of HIV prevention strategies among commercial sex workers (CSWs) in Madras.
- Based upon the experiences of a pilot project established by the Tamil Nadu State Government AIDS Cell and WHO, the researcher found that the organization of the commercial sex trade in Madras was not highly conducive to collective action.
- Identifying factors that have frustrated attempts to promote community-based strategies in the city, the paper suggests that this approach is unlikely to succeed unless there are significant changes to the institutional arrangements that keep sex workers in a position of subordination and exploitation.
- Hence, for the Community participation to succeed, the societal actors - the affected people must feel internalized and not be treated like an outcaste.

Community Solution can also aid in times of funding crisis:

- India relied on others' money to run its NACP programme. Earlier, World Bank and many other global groups were giving funds. When the outside support dried up, India started deploying larger share of its own money. But it covered only 50 per cent of total expenditure.
- The country needed to find a way to raise resources from within the country. It did so by asking State and civil society to contribute some money.

The future challenges

- Currently, ART can reduce HIV viral burden and infectiousness although it does require strict adherence to daily medications. What could an HIV cure offer beyond this? In the medical community, a cure could be HIV remission (living with HIV without HIV RNA detected in the blood), or HIV eradication (no HIV in the body and completely HIV negative).
- However, it is not well understood what HIV cure means to those within the community who are at risk of HIV but have never been tested or still test negative, to those who are currently living with HIV with and without ART, and to those who are diagnosed early or late.
- The word 'cure' certainly has different meanings for different people: from living with HIV without the risk of transmitting the virus to others, to living without any traces of HIV in the body.

Summing up - from top down to decentralized approach and challenges foreseen

- Ending stigmas associated with AIDS requires more than awareness campaigns
- Frequent cuts in budgets and top centric monitoring mechanism does not aid in reducing AIDS incidence, prevalence and mortality
- Something like Social audit methodology is required in all forms of AIDS control. But, this can only happen when HIV/AIDS is merely treated as a disease - with no social stigma attached.
- A community cannot mark success in the absence of support mechanism, hence its networked linkages should be furthered as and when the case may arise.



Practice Question

- **Stigma and Discrimination is still prevailing against the vulnerable population, persons and families infected and affected with HIV. Is AIDS a disease or a Social stigma? Can it be better referred to as a status of immune system? While scientifically explaining causal factors of AIDS, analyze efficacy of community led approach in AIDS eradication programmes.**

Tapping the potential of communities to end AIDS

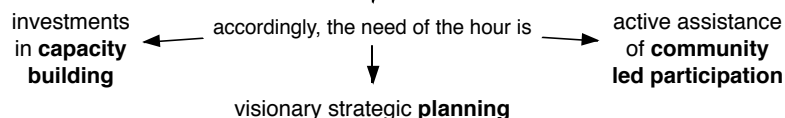
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CONTEXT

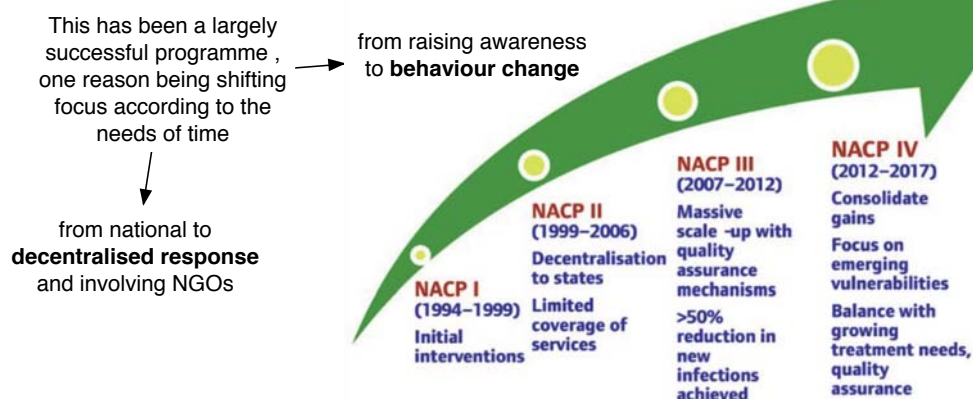
The Joint UN programme on AIDS, commonly known as UNAIDS, is facing one of the worst challenges afflicting the global AIDS response — this time an existential threat questioning its very relevance. In this context, it has become pertinent to strive for a more community involved response to tackle the menace of AIDS

Despite the recent mobilization of donor funds, resources are strained, and the capacity of the health care systems to absorb the increasing treatment load is precarious



India's Response

NACO has been running **National AIDS Control Programme (NACP)** since early 1990s

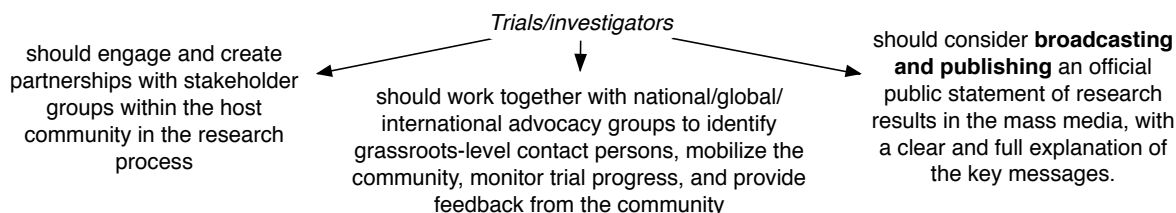


More community participation can also solve some of the **funding issues** by involving civil society in contributing some money.



Local leaders, politicians and opinion **leaders** should invest time and resources in understanding trial processes, and seek partnerships with trial investigators and advocates in their communities

Lately, more community participation seems to be the way ahead in direction of controlling HIV/AIDS



Ending stigmas associated with AIDS requires more than awareness campaigns

Frequent cuts in budgets and top centric monitoring mechanism does not aid in reducing AIDS incidence, prevalence and mortality

Something like Social audit methodology is required in all forms of AIDS control. But, this can only happen when HIV/AIDS is merely treated as a disease - with no social stigma attached.

SECTION: B
(PRELIMS)

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PARAMARSH

◎ CONTEXT:

- Ministry of Human Resource Development (HRD) launched 'Paramarsh' scheme, which is a University Grants Commission (UGC) scheme for mentoring National Accreditation and Assessment Council (NAAC) Accreditation Aspirant Institutions to promote Quality Assurance in Higher Education.

◎ ABOUT:

More on news:

- Higher education institutions that have failed to meet the quality standards of the NAAC can now get mentorship from the top universities and colleges.
- Under the Paramarsh scheme, initially 71 universities and 391 colleges with NAAC score of 3.26 and above will mentor five colleges each.
- The first step of the mission is to improve the quality and standards of education that has been initiated by the UGC with the launch of Paramarsh and Deeksharambh schemes.

Aim of the Scheme

- To improve the global ranking of the Indian higher education institutions.
- The scheme also proposes to provide financial assistance to the mentoring institutions and the option of appointing an expert, who can be paid a fellowship amount of Rs. 31,000 per month.
- The scheme will lead to enhancement of the mentee institutions' quality and its profile as a result of improved quality of research, teaching and learning methodologies.

Benefits of the Paramarsh Scheme

- The scheme will be a paradigm shift in the concept of mentoring of institution by another well performing institution to upgrade their academic performance and enable them to get accredited by focusing in the area of curricular aspects, teaching-learning & evaluation, research, innovation, institutional values & practices etc.
- The scheme is expected to have a major impact in addressing a national challenge of improving the quality of Higher Education in India.
- Scheme will be operationalized through a "Hub & Spoke" model wherein the Mentor Institution, called the "Hub" is centralized and will have the responsibility of guiding the Mentee institution through the secondary branches the "Spoke" through the services provided to the mentee for self-improvement.
- This allows a centralized control over operational efficiency, resource utilization to attain overall development of the mentee institution.
- Scheme will lead to enhancement of overall quality of the Mentee Institutions and enhance its profile as a result of improved quality of research, teaching and learning methodologies.
- Mentee Institution will also have increased exposure and speedier adaptation to best practices.
- It will also facilitate sharing of knowledge, information and opportunities for research collaboration and faculty development in Mentee Institutions.
- It will target 1000 Higher Education Institutions for mentoring with a specific focus on quality as enumerated in the UGC "Quality Mandate".
- Mentor-Mentee relationship will not only benefit both the institutions but also provide quality education to the 3.6 crore students who are enrolling to Indian Higher Education system at present.

Eligibility criteria by UGC

- The eligibility guidelines laid down by UGC say the mentor and the mentee can be government, aided, private or self-financing institution.

- The mentor institution should be NAAC accredited with an A grade, having an overall score of 3.26 and above.
- Any such institution recognised under 2(f) & 12B of the UGC Act 1956 will be eligible to receive UGC grants for the purpose.
- Since these grants will be used for mentoring the institution and not for creation of any infrastructure, the private institution can also receive funding as they do for student teacher centric schemes.
- The mentee institution will also have increased exposure and speedier adaptation to best practices
- Scheme will also facilitate sharing of knowledge, information and opportunities for research collaboration and faculty development in mentee institutions

About NAAC

- The NAAC is an autonomous body that assesses and accredits higher education institutions (HEIs) in India. It assesses the higher learning institutes on the basis of seven parametres.
- The parametres include teaching-learning and evaluation, infrastructure and learning resources, research, innovation and extension, curricular aspects, governance, leadership and management, student support and progression and institutional values and best practices.

BLUE FLAG CHALLENGE

◎ CONTEXT:

- Twelve Indian beaches are in the race for the 'Blue Flag' challenge, which started in France in 1985.

◎ ABOUT:

Blue Flag Challenge

- It is international recognition conferred on beaches and marinas that meet certain criteria of cleanliness and environmental propriety and equipped with amenities of international standards for tourists.
- It was first started in France in 1985 and has been implemented in Europe since 1987.
- It is run by international, non-governmental, non-profit organisation Foundation for Environmental Education (FEE).
- Since 2001 it has been implemented in areas outside Europe when South Africa joined.
- Criteria: There are almost 33 criteria that must be met by beaches and marinas to qualify for Blue Flag certification. It includes:
 - Information about the Blue Flag Programme and other FEE eco-label must be displayed.
 - Environmental education activities must be offered and promoted to beach users.
 - Information about bathing water quality must be displayed.
 - Information relating to local eco-systems, environmental elements and cultural sites must be displayed.
 - A map of the beach indicating different facilities must be displayed.
 - The beach must fully comply with the water quality sampling and frequency requirements.
 - The beach must fully comply with the standards and requirements for water quality analysis.
 - Industrial, waste-water or sewage-related discharges must not affect the beach Area

- The beach must comply with the Blue Flag requirements for physical parameters.
- At least one Blue Flag beach in each municipality must have access and facilities provided for the physically disabled
- **Validation:** If approved, beaches are given blue flag tag for a year and they must apply annually to continue meriting right to fly this flag at their locations.
- **Top countries:** Spain (total blue flags: 684), France (492) and Turkey (458). Japan and South Korea are only countries from South/southeastern Asia to have Blue Flag beaches.
- Chandrabhaga beach on Konark coast in Odisha was first in Asia to get Blue Flag certification (awarded in June 2019).

Initiatives by Government for Beach Conservation

- The Ministry of Environment, Forests and Climate Change today signed a letter of Intent establishing the India-Norway Marine Pollution Initiative together with the Norwegian ministry of Foreign Affairs.
- The government is in the process of framing a National Marine Litter Policy with the objective to clean up the oceans, which is in line with UN Environment's global 'Clean Seas Campaign' that India joined on World Environment Day 2018.
- The government is installing debris booms and fin deflectors upstream as measures to reduce the quantity of floating solid waste entering coastal waters.

Foundation for Environmental Education (FEE)

- FEE is a non-profit non-governmental organisation with member organisations in 48 countries as of June 2007.
- FEE aims to promote sustainable development through environmental education. The education can be in the form of formal school education, training of staff and general awareness raising.
- It is based in Copenhagen, Denmark

KAZIRANGA NATIONAL PARK

◎ CONTEXT:

- Four people lost their lives and two one-horned rhinos drowned in Kaziranga National Park (KNP) on Tuesday as Assam continued to reel under floods and rain-induced landslides.

◎ ABOUT:

- Kaziranga National park's 430 square kilometer area sprinkled with elephant-grass meadows, swampy lagoons, and dense forests is home to more than 2200 Indian one-horned rhinoceros, approximately 2/3rd of their total world population.
- Formed in 1908 on the recommendation of Mary Curzon, the park is located in the edge of the Eastern Himalayan biodiversity hotspots – Golaghat and Nagaon district in Assam
- In the year 1985, the park was declared as a World Heritage Site by UNESCO.
- Along with the iconic Greater one-horned rhinoceros, the park is the breeding ground of elephants, wild water buffalo, and swamp deer.
- Over the time, the tiger population has also increased in Kaziranga, and that's the reason why Kaziranga was declared as Tiger Reserve in 2006.
- Also, the park is recognized as an Important Bird Area by BirdLife International for the conservation of avifaunal species. Birds like lesser white-fronted goose, ferruginous duck, Baer's pochard duck and lesser adjutant, greater adjutant, black-necked stork, and

Asian Openbill stork specially migrate from the Central Asia during the winter season.

- The park has successfully managed to grow the population of Greater one-horned rhinoceros, an endangered species.
- The vast expanse of tall elephant grass, marshland, and dense tropical moist broadleaf forests undoubtedly makes the park look beautiful but it's the presence of Brahmaputra river, which makes it look enigmatic.
- Due to the difference in altitude between the eastern and western areas of the park, here one can see mainly four types of vegetation' like alluvial inundated grasslands, alluvial savanna woodlands, tropical moist mixed deciduous forests, and tropical semi-evergreen forests.
- Kumbhi, Indian gooseberry, the cotton tree, and elephant Apple are amongst the famous trees that can be seen in the park.

About Asian One-horned Rhinoceros

- The Indian Rhinoceros (*Rhinoceros unicornis*) is also called Greater One-horned Rhinoceros and Asian One-horned Rhinoceros and belongs to the Rhinocerotidae family.
- Primarily found in parts of north-eastern India and in protected areas in the Terai of Nepal, where populations are confined to the riverine grasslands in the foothills of the Himalayas.
- Weighing between 2260 kg and 3000 kg, it is the fourth largest land animal and has a single horn.
- These Rhinoceros once ranged throughout the entire stretch of the Indo-Gangetic Plain but excessive hunting reduced their natural habitat drastically. Today, about 3,000 Rhinos live in the wild, 2000 of which are found in Assam's Kaziranga alone.
- These Rhinoceros can run at speeds of up to 55 km/h for short periods of time and is also an excellent swimmer.
- It has excellent senses of hearing and smell but relatively poor eyesight.

Current situation and mitigation efforts in Kaziranga National park

- Incessant rain in the region over the past few days has resulted in most of the water bodies overflowing and the animals moving to higher reaches.
- At present water has entered the park through natural channels which is normal but the situation becomes extremely critical once water flows over the Brahmaputra embankment.
- Apart from the Brahmaputra, water from the Dhansiri, which is a tributary of the Brahmaputra, also entered the park.
- Series of measures to mitigate flood impact such as pressing seven new speedboats into service, several rounds of awareness drives among the fringe villages, seeking their cooperation and support and repairing the highland inside the park so that these can provide shelter to the animals during flood.
- The anti-poaching camps have been repaired for use by the mobile anti-poaching teams that will patrol the park 24X7 during floods
- Besides, staff members, including divisional forest officers, forest guards, home guards, boatmen and commandos of the elite Assam Forest Protection Force (AFPF) are currently deployed at the park.
- Time cards are being provided to vehicles coming from both sides of the Kaziranga National Park to provide utmost security to animals from being hunted.
- Troops of Indian Army along with SDRF and Civil Administration conducted rescue operations and evacuated around 150 villagers who were stranded.

ORCHIDS OF INDIA: A PICTORIAL GUIDE

◎ CONTEXT:

- The Botanical Survey of India has published **Orchids of India: A Pictorial Guide**- the first comprehensive census of orchids of India.

◎ ABOUT:

Highlights of the survey

- Orchids of India: A Pictorial Guide gives all details of all the species of India, which was unveiled by the Ministry of Environment, Forest and Climate Change.
- According to the publication, the total number of orchid species endemic to India is 388.
- 757 (60%) of all orchids found in India are epiphytic, 447 are terrestrial and 43 are mycoheterotrophic.
- The Himalayas, North-East parts of India and Western Ghats are the hot-spots of orchids.
- The highest number of orchid species is recorded from Arunachal Pradesh followed by Sikkim and West Bengal. The Western Ghats have high endemism of orchids.
- Among the bio geographic zones of India, the Himalayan zone is the richest in terms of orchid species followed by Northeast, Western Ghats, Deccan plateau and Andaman & Nicobar Islands.
- The publication point out that Kerala has 111 of these endemic species while Tamil Nadu has 92 of them.

Orchids

- Orchids have unique shape and ornamentation and have complex floral structure that facilitates biotic cross-pollination
- They are broadly categorised into three life forms: a) epiphytic (plants growing on another plants including those growing on rock boulders and often termed lithophyte), b) terrestrial (plants growing on land and climbers) and c) mycoheterotrophic (plants which derive nutrients from mycorrhizal fungi that are attached to the roots of a vascular plant).
- The epiphytic orchids are abundant up to 1800 m above the sea level and their occurrence decreases with the increase in altitude.
- Terrestrial orchids, which grow directly on soil, are found in large numbers in temperate and alpine region whereas mycoheterotrophic orchids, mostly associated with ectomycorrhizal fungi, are found in temperate regions, or are found growing with parasites in tropical regions.
- The entire orchid family is listed under appendix II of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and hence any trade of wild orchid is banned globally.
- Some of the orchids like Dendrobium, Phalaenopsis, Oncidium and Cymbidium are quite popular in floriculture trade and have a demand both within and outside country.

Botanical Survey of India (BSI)

- BSI is the apex research organization under the Ministry of Environment and Forests (MOEF) for carrying out taxonomic and floristic studies on wild plant resources of the country.
- Its objective is to undertake intensive floristic surveys and collect accurate and detailed information on the occurrence, distribution, ecology and economic utility of plants in the country.
- It was established in 1890 with objective to explore plant resources of country and to identify plants species with economic virtues.

- It develops National database of Indian plants, including herbarium and live specimens, botanical paintings and illustrations, etc.

Cites

- It is an international agreement between governments aimed to ensure international trade in specimens of wild animals and plants does not threaten their survival.
- By this agreement States and regional economic integration organizations adhere voluntarily. States that have agreed to be bound by the Convention ('joined' CITES) are known as Parties.
- Although, legally binding – in other words they have to implement the Convention – it does not take the place of national laws. Rather it provides a framework to be respected by each Party, which has to adopt its own domestic legislation to ensure that CITES, is implemented at the national level.

How CITES works?

- It works by subjecting international trade in specimens of selected species to certain controls. All import, export, re-exports and introduction from the sea of species covered by the Convention has to be authorized through a licensing system.
- Each Party to the Convention must designate one or more Management Authorities in charge of administering that licensing system and one or more Scientific Authorities to advise them on the effects of trade on the status of the species.

POLAVARAM IRRIGATION PROJECT

◎ CONTEXT:

- The Ministry of Jal Shakti has constituted a committee to examine the cost escalation of the Polavaram irrigation project under the instructions of the Ministry of Finance.

◎ ABOUT:

More on news:

- Revised Cost Committee has been formed to rework the cost of Polavaram Irrigation Project (PIP) in Andhra Pradesh, under the chairmanship of a joint secretary of the Finance Ministry.
- The revised cost estimates is being assessed by the Technical Advisory Committee.
- Ministry of Finance has also asked the state government to soon send an audit of Rs 5,000 crore spent prior to 2014, as an audit of Rs 3,000 crore spent has been held so far.

Compensation to affected people

- Compensation package of Rs. 6,36,000 has been fixed for per affected family and those whose cattle is also affected, they will get another Rs. 25,000, as per the package decided.
- There is no complaint pending with the Government of India. To ensure rehabilitation and resettlement of those affected by the project, committees have been formed by state governments and are headed by collectors to look into grievances. Even, a committee has also been set up under the Secretary of Ministry of Tribal Affairs to redress the grievances of tribal people.

Funding Issue of PIP

- The Government of Andhra Pradesh submitted Revised Cost Estimates (RCE) for Rs 57,297.42 crore at 2017-18 price level to Central Water Commission (CWC) in January, 2018.
- The Advisory Committee on Irrigation, Flood Control & Multipurpose Projects of the Department of Water Resources, River Development & Ganga Rejuvenation, Ministry

of Jal Shakti in its 141st meeting held in February, 2019 accepted the RCE of the PIP for Rs 55,548.87 crore at 2017-18 Price level (PL) of which cost of irrigation component is Rs.50,987.96 crore

- The approved RCE has reduced mainly on account of reconciliation in estimated cost of certain land under submergence, land for which compensation is payable, cost of remaining works as per relevant schedule of rates.

Polavaram Irrigation Project (PIP)

- This project is located in West Godavari district of Andhra Pradesh, which will also interlink several rivers in the state.
- It has been accorded national project status by the Centre. Its implementation is monitored by the Central Water Commission.
- The project involves relocation of about 50,000 families especially in Khammam, East Godavari and West Godavari districts in Andhra Pradesh, besides 2,000 families in Odisha and Chhattisgarh.

Aim of the Project

- Purpose of this multi-purpose project is to facilitate irrigation and it will also help in the supply of drinking water to Visakhapatnam and water for industrial purposes.
- It also endeavours hydropower to regions of East Godavari, Vishakhapatnam, Krishna and West Godavari districts of Andhra Pradesh.
- It seeks to address the challenges of flooding and droughts witnessed in the respective basins.
- The project also aims to help the Rayalaseema region (comprising Anantapur, Chittoor, Kadapa and Kurnool districts out of the total 13 districts) get more water.

Issues with the project

- Displacement: The environmental impact assessment (EIA) of the project says 276 villages will be affected. The Polavaram Project Environmental Impact Appraisal Report of 1985 expected 150,697 people to be displaced in 226 villages. Of the displaced population, tribals constitute 50%. With inadequate resettlement and rehabilitation measures, this has severe implications on the socio-economic life of the displaced populations.
- Changes to the ecology of the region: Environmental activists argue that the project will submerge forests, wildlife sanctuaries and as a result disturb the ecology.
- Too costly: The project will heavily burden the exchequer and low-cost alternatives for flood and drought prevention should be explored.

Criteria for selection as National Project

- Any state project can be regarded as a national project where planning and early completion of the project is necessary in the interest of the country.
- Inter-State projects which are dragging on due to non-resolution of Inter-State issues relating to sharing of costs, rehabilitation and aspects of power production etc.,
- Intra-State projects with the additional potential of more than 2,00,000 hectare (ha) and with no dispute regarding sharing of water and where hydrology is established.
- As of 2016, there are 16 Dam projects which have received the status of National Project.

TIGERS UNDER HIGH STRESS

◎ CONTEXT:

- A study conducted by the Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) has found that the Tigers in Bandhavgarh, Kanha and Sariska are under tremendous stress induced by tourism and this is probably affecting their reproduction.

© **ABOUT:**

Highlights of the study

- Results of the study were published in CCMB's Laboratory for Conservation of Endangered Species.
- This study is based on the comparison between the samples of fecal glucocorticoid metabolite (fGCM) of the same tigers from the same location during tourist and off-peak seasons, which is regarded as a marker of stress.
- The stress levels of tigers during the 8-9 month tourism period were very high. Although females are known to undergo more stress, study shows that males were also under tremendous stress.
- Study could also be distinctly correlated with the stress levels depending on the number of vehicles entering the tiger reserves.
- The report suggests that unsustainable wildlife tourism causes distinct physiological stress in tigers in protected areas. Recently introduced tigers in Sariska Tiger Reserve, Rajasthan, failed to reproduce effectively presumably due to high levels of stress caused by high anthropogenic disturbance.
- It recommends strict regulation of vehicular traffic, and reducing other anthropogenic disturbances.

What the study focussed on?

- The study examines the relationship between anthropogenic disturbances and physiological stress levels in tiger populations in protected areas.
- The research team collected a total of 341 fGCM, a stress marker among tigers, samples from Bandhavgarh and Kanha reserves during tourist and off-peak seasons, besides data on various anthropogenic disturbances, including tourism activities.

Current status of Tigers in India

- The count of big cats is increasing constantly. In 2006, there were 1,411 tigers, which increased to 1,706 in 2010 and 2,226 in 2014.
- Around 97 % of the world tiger population perished in the last 100 years and according to the latest statistics, only 3,890 tigers are left in the world, out of which 2,226 are in India.
- Major threats to the tiger include habitat destruction, habitat fragmentation and commercial poaching for fur and body parts, which have simultaneously reduced tiger populations in the wild.
- The country's first Wildlife Crime Cell has been established by the forest department at Melghat Tiger Reserve to stop the poaching of tigers and other wild animals.
- Uttarakhand has recorded a massive jump in the tiger numbers with the Corbett Tiger Reserve becoming home to 45 more tigers since 2015 and the Rajaji Tiger Reserve having 18 more big cats than were recorded in the 2014 tiger census.
- Uttarakhand has the country's second highest tiger population after Karnataka, according to the 2014 tiger census.

National Tiger Conservation Authority

- It is a statutory body under the Ministry of Environment, Forests and Climate Change constituted under enabling provisions of the Wildlife (Protection) Act, 1972, as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

International or Global Tiger day

- It is observed on 29 July every year, which is dedicated to the worldwide awareness and support for tiger conservation.
- It was created when 13 countries came together in 2009 and pledged to double the world's Tiger population by 2022 -- the next "Year of the Tiger" on the Asian lunar calendar.

Steps taken

- In 2010, the governments of 13 countries where wild tigers roam decided that the business-as-usual approach was not enough.
- They came together and committed to TX2 - the most ambitious conservation goal set for a single species – to double wild tigers by 2022, the next Chinese Year of the Tiger.
- Project Tiger was launched in 1973 in India that aims at conserving Tiger.

CHANDIPURA VIRUS**◎ CONTEXT:**

- Chandipura virus came to light when blood samples from two patients in Maharashtra's Chandipura village were tested and found positive.

◎ ABOUT:**What is this virus?**

- Named after the town in Maharashtra where the discovery was made and isolated, Chandipura virus is known to cause inflammation of the brain, progress rapidly from an influenza-like illness to coma and death.
- The Chandipura Vesiculovirus (CHPV), first discovered by two virologists of the Pune-based National Institute of Virology (NIV) in 1965, predominantly infects children.

Causes

- The virus spreads mainly through the bite of sand flies, and sometimes through mosquitoes.
- Animal studies show that the virus affects neurons and causes neurodegeneration.
- Sand flies, which are found in mud and in cracks of sand houses, mostly breed during monsoon and pre-monsoon months which is when the cases are generally reported.
- The likely vector (or carrier) of the virus is the female phlebotomine sandfly. The virus was detected in sandflies in Senegal, Nigeria as well as in India.
- The virus is known to cause inflammation of the brain.
- CHPV belongs to the Rhabdoviridae family in the order Mononegavirales of the genus Vesiculovirus.
- Interestingly, its continuing mutating trend has enhanced its lethality to cause human infections, unlike its genetic cousin, the vesicular stomatitis virus (VSV).

Symptoms

- Sudden high fever accompanied by headaches and altered consciousness
- Convulsions
- Vomiting and nausea
- Unconsciousness

Things to remember

- The virus predominantly infects children between the ages of 2-16, spreading through the bite of a sandfly, and in some cases, even the mosquito during the monsoon and pre-monsoon season.
- It is distantly related to the virus that causes rabies and is known to have a case fatality between 55-75 %.

Treatment

- There is no specific medicine for its treatment. However with timely detection, hospitalisation and symptomatic treatment is given to the patient, which could help save lives.

Prevention

- Prevention is the best method to suppress CHPV infection. According to NCBI (National Center for Biotechnology Information), for the containment of the disease transmitting vectors, it is essential to maintain good nutrition, health, hygiene and awareness in rural areas.

Rhabdoviridae

- Rhabdoviridae is a family of viruses whose members infect vertebrates, invertebrates, and plants.
- The family Rhabdoviridae encompasses a diverse group of over 100 viruses that infect a number of mammals, plants, reptiles, fish, and crustaceans.
- They are linked by a common rod-shaped (Rhabdo) ultrastructural appearance.
- Genera Lyssavirus and Vesiculovirus, respectively, contain the agents of rabies and vesicular stomatitis, the viruses of importance to nonhuman primates.

INTERNATIONAL COURT OF JUSTICE (ICJ)

◎ CONTEXT:

- ICJ directs Pakistan to review or reconsider Kulbhushan Jadhav's sentence under provisions of 1963 Vienna Convention.

◎ ABOUT:

More on news:

- In its judgment, the ICJ ruled in favour of India and found that Pakistan breached own commitments to the Vienna convention on consular relations, and also rejecting its contention that the convention doesn't apply to the charges of espionage and terrorism levelled against Mr. Jadhav.
- These recommendations can only ensure a fair trial process for him in Pakistan, and not his release.
- The present ICJ verdict constitutes a major diplomatic and legal victory for India.

◎ BACKGROUND

- Kulbhushan Jadhav, a former Indian Navy officer, was arrested by Pakistani officials in March 2016, on suspicion of espionage and sabotage activities against the country.
- He was sentenced to death on charges of espionage and terrorism in April 2017.
- India has maintained that he was running a business in Iran and was innocent and he had been kidnapped by Pakistani intelligence agencies from Iran.
- India took Pakistan to the ICJ on the grounds that Islamabad violated the Vienna Convention by denying consular access to him.
- Pakistan countered it with another argument questioning the jurisdiction of the ICJ in a case that involves.
- Pakistan has invoked the reservation under the UN charter (including India's reservation as part of the Commonwealth) and the bilateral agreement between India and Pakistan whereby consular access can be denied to those caught in acts of espionage.
- Despite repeated attempts, Pakistan had denied India consular access to him under Article 36 of the Vienna Convention on Consular Relations. It has also stood in gross violation of the ICCPR (International Covenant on Civil and Political Rights).

International Court of Justice

- It is the principal judicial organ of the United Nations (UN), with its seat at The Hague.
- It was established in 1945 after half a century of international conflict in the form of two World Wars by the San Francisco Conference, which also created the UN.

- All members of the UN are parties to the statute of the ICJ, and non-members may also become parties.
- It is an autonomous body that is permanently in session, which consists of 15 judges of which no two of whom may be nationals of the same state.
- These are elected to nine-year terms by majority votes in the UN General Assembly and the Security Council.
- The judges, one-third of whom are elected every three years, are eligible for re-election.
- The judges elect their own president and vice president, each of whom serve a three-year term, and can appoint administrative personnel as necessary.

Primary function of ICJ

- The court's primary function is to pass judgment upon disputes between sovereign states. Only states may be parties in cases before the court, and no state can be sued before the World Court unless it consents to such an action.
- Under article 36 of the court's statute, any state may consent to the court's compulsory jurisdiction in advance by filing a declaration to that effect with the UN secretary-general.

How are cases resolved before ICJ?

- Cases before the ICJ are resolved in one of three ways:-
 - They can be settled by the parties at any time during the proceedings;
 - A state can discontinue the proceedings and withdraw at any point; or
 - The court can deliver a verdict.
- It decides disputes in accordance with international law as reflected in international conventions, international custom, general principles of law recognized by civilized nations, judicial decisions, and writings of the most highly qualified experts on international law.

Are the courts decisions binding?

- The court's decisions are binding on the parties and have been concerned with issues such as land and maritime boundaries, territorial sovereignty, diplomatic relations, the right of asylum, nationality, and economic rights.
- It also gives advisory opinions on legal questions at the request of other organs of the UN and its specialized agencies when authorized to do so by the General Assembly.

Drawbacks of the court

- Absence of binding, which means that the 193 member states of the ICJ do not necessarily have to accept the jurisdiction, since it raises the question of sovereignty of the countries.
- Organizations, private enterprises, and individuals cannot have their cases taken to the International Court of appeal a national supreme court's ruling.
- Other existing international thematic courts, such as the International Criminal Court, are not under the umbrella of the International Court.
- Such dualistic structure between various international courts sometimes makes it hard for the courts to engage in effective and collective jurisdiction.
- It does not enjoy a full separation of powers, with permanent members of the Security Council being able to veto enforcement of cases, even those to which they consented to be bound.

Vienna Convention

- The Vienna Convention on Consular Relations of 1963 is an international treaty that defines a framework for consular relations between independent states.

- A consul normally operates out of an embassy in another country, and performs two functions: (1) protecting in the host country the interests of their countrymen, and (2) furthering the commercial and economic relations between the two states.
- The treaty provides for consular immunity. The treaty has been ratified by 179 states. Advisory opinions are not binding and are only consultative, though they are considered important.
- International Covenant on Civil and Political Rights (ICCPR)
- It recognises the right to an effective defence against criminal charges, and to a fair and impartial trial.

DELAY IN ESTABLISHMENT OF HUMAN RIGHTS COURT

◎ CONTEXT:

- **The Supreme Court has recently asked from the Union government, States and the Union Territories administration on the prolonged delay observed in establishing exclusive human rights courts in each district.**

◎ ABOUT:

- India is a party to International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights adopted by the General Assembly of United Nations on 16 December, 1966.
- The Human Rights Act calls for establishment of special courts in each district to deal with the cases related to the abuse of human rights.
- Such Courts have been established in many states which are inclusive of Andhra Pradesh, Tamil Nadu, Sikkim, Uttar Pradesh and Assam.
- Section 30 of the Act envisages that a State government, with the concurrence of the Chief Justice of High Court, by notification, specify for each district a court of session as a court of human rights for the speedy trial of violation of rights.
- Section 31 of the Act provides the State government to specify and appoint a special public prosecutor in that court.
- Section 2 of the Protection of Human Rights Act, 1993 - "Human Rights" means the rights relating to life, liberty, equality and dignity of the individual guaranteed by the constitution or embodied in the International covenants and enforceable by courts in.
- Section 21 of the act provides for establishment of state Human Rights Commission headed by Chairperson who shall be retired Chief justice of a High Court, there shall be one other member who shall be a judge either in High Court or district Court.
- The State Commission shall inquire only into matters listed in List II and List III of seventh schedule.
- The chairperson of commission shall be appointed by the Chief Minister, the members shall be appointed by speaker of legislative assembly, minister in charge of department of home and leader of opposition.

Why were the exclusive human rights courts not established?

- So far the gross human rights violations were mostly getting punished under the criminal courts as considering the penal offence.
- Largely at Public and civil society level, role of NHRC and SHRC was sought to be a panacea instead of bottom up - district led exclusive Human rights Court.
- Weak financial and administrative support of respective State High Courts.
- Low and superficial awareness campaigns.
- A lot of Public debate has been on 'specific events - like Mob Lynching, Dalit atrocities etc' thus missing the comprehensive picture.

How Judiciary can provide for the adjudicating the case of Human Rights?

- It may not always be possible to implement or codify the entire requisite or the probable laws to get formulated or anticipated in the manner for the protection up of the Human Rights.
- Thus the role of our Indian Judiciary comes into the existence when it is enumerated about the principles of natural justice as due process of Law will govern and adjudicate for the protection and promotion of the rights of the people when they have suffered violations of their rights and when to protect it no legislation has been framed.
- Judiciary don't let anybody's rights get infringed, rather protects them taking the issuance of the principles of natural justice.
- The above reasons are a prime factor behind combined faith in favour of District level exclusive Human rights court.

What actions has government taken in this matter?

- Despite existence of clause in Human Rights Act, the Union government can and has at times, at best only requested states to take steps to create the institution.
- Division of Power and federalism do not allow the Union to impose a particular structure.
- However, to streamline these judicial issues, All India Judicial Services have been gaining a wider traction. But this would require Constitutional amendment.
- Human rights Court and NHRC/SHRC
- Human Rights Court, when gets established will surely be having the status of a Court to adjudicate the justice for the Human Rights issues, and thus would be different body from the Human Rights Commission whether National or the State level.

Additional Pointers:

• National Human Rights Commission (NHRC)

- It was established in 1993 under a legislation enacted by the Parliament, namely, the Protection of Human Rights Act, 1993.
- It is a statutory body.
- In 1993, the UN General Assembly adopted the Paris Principles on Human Rights. This led to the constitution of national human rights institutions in almost every country.
- The commission is a multi-member body consisting of a chairman and four members.
- The commission's headquarters is at Delhi and it can also establish offices at other places in India.
- The Commission has its own investigating staff headed by a Director General of Police for investigation into complaints of human rights violations. Under the Act, it is open to the Commission to utilise the services of any officer or investigation agency of the Central Government or any State Government.
- The Commission has associated, in a number of cases, non – Governmental organizations in the investigation work.

• Powers relating to inquiries

- While inquiring into complaints under the Act, the Commission shall have all the powers of a civil court trying a suit under the Code of Civil Procedure, 1908, and in particular the following, namely;
- Summoning and enforcing the attendance of witnesses and examining them on oath;

- discovery and production of any document;
 - receiving evidence on affidavits;
 - requisitioning any public record or copy thereof from any court or office;
 - issuing commissions for the examination of witnesses or documents;
 - any other matter which may be prescribed.
- **Limitations of NHRC:**
 - NHRC's recommendations are not binding
 - NHRC cannot penalise authorities who do not implement its orders
 - JK is out of its jurisdiction
 - NHRC jurisdiction does not cover human right violations by private parties
 - 3/5 of members are judges, leading to more judicial touch to its functioning
 - 2/5 of the members are also not Human Right experts. Political appointments.

RAMANUJAN MACHINE

◎ **CONTEXT:**

- Scientists from Technion — Israel Institute of Technology have developed a concept they have named the Ramanujan Machine, after the Indian mathematician.

◎ **ABOUT:**

- The Ramanujan 'machine' is, in reality, an algorithm. It attempts to automatically generate conjectures. Conjectures are mathematical statements which are proposed as true statements. In other words, they are mathematical statements that are, as yet, unproven.
- Typically, people provide the input and the algorithm finds the solution. For example, the user enters the 'Destination' in Google Maps and then the algorithm provides the user with the Navigation assistance.
- But, the Ramanujan Machine reverses the process. If a constant such as π is fed into the machine, it will generate a series whose value would lead towards π . Then, it is for the humans to prove that this proposed equation is correct.
- The researchers have also set up a website, ramanujanmachine.com. Users can suggest proofs for algorithms or propose new algorithms, which will be named after them.
- To date, the Ramanujan Machine focused on two algorithms, variants of Meet-In-The-Middle (MITM) algorithm and a Gradient Descent (GD).

Why it is named on Ramanujan?

- The algorithm reflects the way Srinivasa Ramanujan worked during his brief life (1887-1920). With very little formal training, he engaged with the most celebrated mathematicians of the time, particularly during his stay in England (1914-19), where he eventually became a Fellow of the Royal Society and earned a research degree from Cambridge.
- Throughout his life, Ramanujan came up with novel equations and identities—including equations leading to the value of π —and it was usually left to formally trained mathematicians to prove these. In 1987, two Canadian brothers proved all 17 of Ramanujan's series for $1/\pi$;
- Two years earlier, an American mathematician and programmer had used one of these formulas to calculate π up to over 17 million digits, which was a world record at the time (Deka Baruah, Berndt & Chan; American Mathematical Monthly, 2009).

- ◎ **SIGNIFICANCE:**
- Conjectures are a major step in the process of making new discoveries in any branch of science, particularly mathematics. Equations defining the fundamental mathematical constants, including pi, are invariably elegant.
 - It is quite possible that the algorithm will come up with conjectures that may take years to prove — a famous example of a human conjecture is Fermat's Last Theorem, proposed in 1637 and proved only in 1994.

Famous works of Ramanujan

- Srinivasa Ramanujan was one of India's greatest mathematical geniuses.
- He made substantial contributions to the analytical theory of numbers and worked on elliptic functions, continued fractions, and infinite series.
- Ramanujan was shown how to solve cubic equations in 1902 and he went on to find his own method to solve the quartic.
- He investigated the series $\sum(1/n)$ and calculated Euler's constant to 15 decimal places.
- He began to study the Bernoulli numbers, although this was entirely his own independent discovery.
- He worked on Hyper-geometric series and investigated relations between integrals and series.
- After publication of a brilliant research paper on Bernoulli numbers in 1911 in the Journal of the Indian Mathematical Society he gained recognition for his work.
- Ramanujan worked out the Riemann series, the elliptic integrals, hypergeometric series and functional equations of the zeta function.
- Ramanujan left a number of unpublished notebooks filled with theorems that mathematicians have continued to study.

Ramanujan Prize

- The ICTP Ramanujan Prize for Young Mathematicians from Developing Countries is a mathematics prize awarded annually by the International Centre for Theoretical Physics and named after the mathematician Srinivasa Ramanujan

Sastra Ramanujan Prize

- The SASTRA Ramanujan Prize, founded by Shanmugha Arts, Science, Technology & Research Academy (SASTRA) located near Kumbakonam, India, Srinivasa Ramanujan's hometown, is awarded every year to a young mathematician judged to have done outstanding work in Ramanujan's fields of interest.

Hardy–Ramanujan Number

- The number 1729 is known as the Hardy–Ramanujan number after a famous visit by Hardy to see Ramanujan at a hospital.

ATAL BIMIT VYAKTI KALYAN YOJANA (ABVKY)

- ◎ **CONTEXT:**
- The Ministry of Labour and Employment announced Atal Bimit Vyakti Kalyan Yojana to financially support Insured Person (IP) who lost their jobs and were covered under the Employees' State Insurance Act, 1948.

◎ **ABOUT:**

More on News:

- This scheme has been approved by the Employees' State Insurance Corporation (ESIC) that aims to benefit its subscribers, who are mainly formal sector workers who have become unemployed.
- The scheme is implemented on pilot basis for a period of two years initially.

- It provides relief to the extent of 25% of the average per day earning during the previous four contribution periods (total earning during the four contribution period/730) to be paid up to maximum 90 days of unemployment once in lifetime of the IP on submission of claim in form of an Affidavit.

Eligibility conditions

- IP should have been rendered unemployed during the period the relief is claimed.
- IP should have been in insurable employment for a minimum period of two years.
- IP should have contributed not less than 78 days during each of the preceding four contribution periods.
- Aadhar and Bank Account of the IP should be linked with insured person data base.
- In case the IP is working for more than one employers and is covered under the ESI scheme he will be considered unemployed only in case he is rendered unemployed with all employers.

Other features of the scheme

- As specified in Section 65 of the ESI Act, an IP shall not be entitled to any other cash compensation and the Relief under ABVKY simultaneously for the same period. However, periodical payments of Permanent Disability Benefit (PDB) under ESI Act and Regulations shall continue.
- The contribution in respect of him should have been paid or payable by the employer.
- The contingency of the unemployment should not have been as a result of any punishment for misconduct or superannuation or voluntary retirement.
- The IP will be eligible for Medical benefit as provided under the Act for the period he is availing this relief.
- The claim for Relief under ABVKY may be submitted by the claimant any time after rendering unemployed, but not later than one year from the date of unemployment to the appropriate Branch Office in form of affidavit in prescribed Form. No prospective claim i.e. claim for relief under ABVKY for any future period will be allowed.
- The IP will submit his claim online through the ESIC Portal.
- The Relief under ABVKY shall be paid/ payable by Branch Office to IPs directly in their bank account only.

Significance of this scheme

- The current scenario of employment in India which has transformed from a long-term employment to fixed short-term engagement in the form of contract and temping. This scheme is a relief payable in cash directly to their bank account in case of unemployment and while they search for new engagement.
- It will curtail the multiple registrations of same IPs and thus enable them to avail the benefits requiring longer contributory conditions.
- This relaxation will immensely help the Insured Persons and their beneficiaries to avail super specialty treatment free of cost as per revised eligibility.

Employees' State Insurance (ESI)

- The ESI Act 1948 was the first major legislation on social security for workers in India. It provides for health-related events, such as sickness, maternity and temporary or permanent disability.
- It also covers occupational disease or death due to employment injury, resulting in loss of wages or earning capacity — either total or partial.
- Under the Act, employers and employees contribute their share, respectively, with the rate of contribution being decided through the Ministry of Labour and Employment.
- It applies to premises where 10 or more persons are employed.

- Employees with wages up to Rs. 21,000 a month (earlier Rs. 15,000 per month) are entitled to the health insurance cover and other benefits under the ESI Act.
- ESIC, which is an autonomous body, regulates medical services being provided by the ESI Scheme in the respective states and Union Territories.

MAHILA SAMRIDHI YOJANA

◎ **CONTEXT:**

- Ministry of Social Justice and Empowerment has introduced Mahila Samridhi Yojana for providing loan to women entrepreneur.

◎ **ABOUT:**

More on news:

- National Backward Classes Finance and Development Corporation (NBCFDC) provide loans to small entrepreneurs belonging to the target group (backward classes) in order to cater the Micro Finance through self-help groups (SHGs) by State Channelizing Agency (SCA) under Micro Finance Scheme.

Self Help Groups (SHGs)

- Economically homogeneous and affinity group of poor people voluntarily formed Self-help groups to save and to contribute common funds to its members.
- Maximum number of women in one SHG is 20. In a SHG, 75% of members can be from Backward Classes and the remaining 25% members may be from other weaker section like SC or Handicapped.

Loan under Mahila Samridhi Yojana (MSY)

- Loans under MSY are provided through SCAs, Regional Rural Banks (RRBs) and Nationalized Banks to the target group.
- MSY loan is provided to Safai Karamchari and Scavenger and their dependants for projects with a maximum project cost up to Rs.60000 for small and petty business and sundry income generating activities.

Implementation

- Channel Partners play a vital role through their field officers, encouraging people of the target group in forming Self-help groups and get financial assistance under MSY of NBCFDC.

Pattern of financing

- Loan will be provided up to 95% and balance 5% provided by the SCAs or Beneficiary contribution.
- Utilization Period is 4 months from the date of disbursement of the loan.

Repayment of Loan

- Loan need to be repaid in quarterly instalments within 4 years including the moratorium period of six months on the recovery of principal.

Eligibility for Mahila Samridhi Yojana

- Women entrepreneur belonging to backward classes only can apply for this scheme.
- Age of the woman should be 18 years
- Members of Backward Classes living below double the poverty line are eligible.
- Annual income of the women should be less than Rs.3 Lakhs per annum

National Backward Classes Finance and Development Corporation (NBCFDC)

- It is an organization under the aegis of Ministry of Social Justice and Empowerment.
- It promotes economic and developmental activities for the benefit of Backward Classes and to assist the poorer section of these classes in skill development and self-employment ventures.
- It provides financial assistance through SCAs nominated by the State Governments/ UTs.
- It also provides Micro Financing through SCAs/ SHGs.
- The Corporation can assist a wide range of income generating activities to assist the poorer section of these classes in skill development and self-employment ventures under following broad sectors :
 - Agriculture and Allied Activities
 - Small Business / Artisan and Traditional Occupation
 - Service / Transport Sector etc.
 - Technical and Professional Trades/Courses

Mahila Samridhi Yojana is another scheme by Ministry of Minority Affairs

- Under this scheme, skill development training is imparted to group of women in women friendly trades. Training period is of maximum 6 months with training & raw material cost of upto Rs.1,500 per women while stipend @ Rs.1,000 is available for each women.
- During the period of training, the women are formed into Self Help Group, followed by infusion of micro-credit maximum upto Rs.1.00 lacs per member for the purpose of using the skill developed during the training, for income generation activities.

PREVENTION OF TUBERCULOSIS

◎ CONTEXT:

- The Indian Council of Medical Research (ICMR) has started a vaccine trial to prevent tuberculosis (TB) among those living close to patients suffering from the disease.

◎ ABOUT:

More on news:

- The ICMR launched the third-phase trials for anti-Tuberculosis (TB) vaccine that could be administered to anybody aged six years and above.
- The clinical trial is aimed at preventing and decreasing the burden of TB in the country.
- The Phase III trial is the first-ever government conducted vaccine trial, which is being conducted to come up with the first TB vaccine for adults as the BCG vaccine is only for new-borns that was undertaken decades ago, it is poorly protective against pulmonary disease in adolescents and adults, and therefore at reducing Mycobacterium tuberculosis (Mtb) transmission.

Vaccine Trials by ICMR

- After a detailed analysis of two potential vaccines, VPM 1002, produced by Serum Institute of India, Pune, and MIP (Mycobacterium Indicus Pranii) were shortlisted for phase III vaccine trials.
- This clinical trial will evaluate the safety and efficacy of these two vaccines in a single trial against control group (not suffering from the disease).
- The study would be done on patients' contacts from seven sites: Delhi, Karnataka, Maharashtra, Odisha, Tamil Nadu and Telangana and it would enrol 12,000 healthy

household contacts of a patient whose sputum has tested positive for TB and are therefore at high risk of contracting the disease.

- ICMR would pitch vaccines to be available at highly subsidised rates in the public sector as well.
- The study has the approval of all statutory regulatory bodies of India according to Indian regulatory guidelines.

What is TB?

- It is a contagious infection that usually attacks the lungs. It can also spread to other parts of the body, like the brain and spine. A type of bacteria called Mycobacterium tuberculosis causes it.

Status of TB

- In 2016, there were an estimated 10.4 million new TB cases worldwide.
- The WHO End TB Strategy aims at a 95 % reduction in TB mortality and a 90 % reduction in TB incidence worldwide by 2035.
- In India, an estimated 2.79 million patients were suffering from the disease in 2016, while 423,000 patients were estimated to have died during the year.
- India was also one of the major contributors to under-reporting and under-diagnosis of TB cases globally, according to the Global TB Report 2018.
- India aims to eliminate TB by 2025. While a whole range of drugs and diagnostics are being worked upon to achieve this aim, this vaccine shall play a pivotal role in that direction.

Purpose

- The ultimate goal is to develop a vaccine that can prevent active TB and be a part of large campaigns aimed at eliminating the disease.
- This clinical study in India could help achieve this goal and significantly advance the global fight against TB.

ICMR

- It is an apex body in India for the formulation, coordination and promotion of biomedical research.
- It is one of the oldest and largest medical research bodies in the world. The ICMR is funded by the Government of India through the Department of Health Research, Ministry of Health and Family Welfare.
- The council's research priorities coincide with National health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders etc.
- These efforts are undertaken with a view to reduce the total burden of disease and to promote health and well-being of the population.

Steps taken by Government of India

- India has set a target for complete elimination of Tuberculosis (TB) by 2025, five years ahead of the global target of 2030.
- It launched TB Free India Campaign. Government is implementing a National Strategic Plan (NSP) to end TB by 2025 with funding of over Rs.12,000 crore for the next three years to ensure every TB patient has access to quality diagnosis, treatment and support.
- Public-private partnership models and Information Technology (IT) tools have been used for monitoring the programme and treatment adherence.
- Community engagement is the hallmark and it is becoming a social movement to end TB in India.

- The new NSP adopts a multi-pronged approach which aims to detect all TB patients with an emphasis on reaching TB patients seeking care from private providers and undiagnosed TB in high-risk populations, treat all patients irrespective of where they seek care adopting a patient-centric approach, prevent emergence of TB in susceptible population groups and build empowered institutions and human resources to streamline implementation.
- Under the Revised National Tuberculosis Control Programme (RNTCP), the government has also proposed an incentive of Rs.500 per patient per month for the nutritional support of TB-affected patients during the course of the treatment.
- The states have the option for providing these incentives in cash or kind. The ministry has formulated the guidance document on nutritional care and support for TB patients which includes guidance on nutritional assessment, counselling and appropriate dietary advice.
- The programme is also facilitating the TB patients to avail various social support schemes of the state governments.
- NIKSHAY is a web based solution for monitoring of TB patients developed by National Informatics Centre (NIC). This is used by health functionaries at various levels across the country in association with Central TB Division (CTD), Ministry of Health & Family Welfare.

STATE OF FOOD SECURITY AND NUTRITION IN THE WORLD 2019 REPORT

◎ CONTEXT:

- The State of Food Security and Nutrition in the World 2019 report, released by the UN Food and Agriculture Organization (FAO), estimated that 820 million people worldwide did not have enough to eat in 2018, up from 811 million in the previous year.
- At the same time, the number of overweight individuals and obesity continue to increase in all regions

◎ ABOUT:

Highlights of the Report

- The 2019 edition of this report continues to signal that significant challenges remain in the fight against food insecurity and malnutrition in all its forms.
- The number of obese adults in India has risen by a fourth in four years, from 24.1 million in 2012 to 32.8 million in 2016, while the country's undernourished population has dropped by roughly the same fraction in 12 years, from 253.9 million in 2004-06 to 194.4 million in 2016-18.
- Hunger is on the rise in almost all African subregions, making Africa the region with the highest prevalence of undernourishment.
- Hunger is also slowly rising in Latin America and the Caribbean, while Western Asia shows a continuous increase since 2010, with more than 12 % of its population is undernourished.
- The report has a section on economic growth in China and India, and its effect on poverty. Between 1990 and 2017, the two countries had an average GDP per capita growth rate of 8.6 % and 4.5 % respectively.
- In both countries, the increase in GDP per capita has been accompanied by poverty reduction. While China's poverty rate declined from 88 % in 1981 to 0.7 % in 2015, India's poverty reduction appeared to be relatively more modest, moving from 48.9 % in 1987 to 21.2 % in 2011, or to 13.4 % in 2015.

State of Food Security and Nutrition Report

- This joint report is issued annually by the FAO, the International Fund for Agricultural Development, UNICEF, the World Food Programme and the World Health Organization.

- It presents the latest estimates on food insecurity, hunger and malnutrition at the global and regional levels.
- The report calls for action to safeguard food security and nutrition through economic and social policies that help counteract the effects of such slowdowns and downturns including guaranteeing funding of social safety nets and ensuring universal access to health and education.
- It calls for action, as well, to tackle inequalities at all levels through multi-sectoral policies making it possible to more sustainably avert food insecurity and malnutrition.

Food and Agriculture Organization (FAO)

- FAO is a specialized agency of the United Nations that leads international efforts to defeat hunger.
- Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate arguments and debate policy.
- FAO is also a source of knowledge and information, and helps developing countries in transition to modernize and improve agriculture, forestry and fisheries practices, ensuring good nutrition and food security for all.
- **Nodal Ministry:** Ministry of Agriculture
- **Flagship Publication/s:**
 - The State of Food and Agriculture
 - The State of World Fisheries and Aquaculture
 - State of the World's Forests
 - The State of Food Insecurity in the World
 - The State of Agricultural Commodity Markets
