

CURRENT AFFAIRS

WEEKLY

WEEK - 2
DECEMBER, 2019

PRELIMS

ECONOMY

- The Industrial Relations Code, 2019

ENVIRONMENT & ECOLOGY

- Climate Emergency CoP 25: Climatic tipping point is closer than we think
- The World Soil Day (WSD)

GOVERNMENT SCHEME

- Mahila Kisan Sashaktikaran Pariyojana

POLITY

- Inner Line Permit (ILP)
- The Dadra and Nagar Haveli and Daman and Diu (Merger of Union Territories) Bill, 2019

POLITY

- The Maintenance and Welfare of Parents and Senior Citizens (Amendment) Bill, 2019

SCIENCE & TECHNOLOGY

- Bharat Biotech Launches New Rotavirus Vaccine to Tackle Diarrhoea

- Cartosat 3

- Hera Mission

SECURITY

- What is the Bodoland dispute?

SOCIAL ISSUE

- Bharatiya Poshan Krishi Kosh

MAINS

ECONOMY & AGRICULTURE

- Revisiting the fertilizer policy

ENVIRONMENT & ECOLOGY

- Antibiotics, river contamination and healthcare

- India's new mapping exercise

INTERNATIONAL RELATIONS

- A World without NATO?
- US-China Trade War – Implications and Opportunities for India

POLITY & GOVERNANCE

- Should Reservation Policy be relooked?

SOCIAL ISSUES

- English language as medium in government schools

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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-2 (DECEMBER, 2019)

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SECTION: A

(MAINS)

CURRENT AFFAIRS

REVISITING THE FERTILIZER POLICY

CONTEXT

- With falling farm yields, exacerbated by climate effects, doubling farmers' real income by FY23 will be difficult, which means continuing to subsidise fertiliser will work against the government's stated goals for the agriculture sector. In this context, the fertilizer policy needs to be revisited.

◎ BACKGROUND

- **Fertiliser, a productivity-enhancing input:** In certain developing countries population growth is increasing faster than agricultural production. In this context, fertilizer is known to be a powerful productivity-enhancing input to agriculture which helps meet the needs of an increasing population.
- One-third of increase in cereal production worldwide, and 50 per cent of increase in India's grain production has been attributed to fertilizer related factors.
- India's experience with productivity-enhancing benefits of fertilisers prompted it to adopt a policy of subsidising fertilisers in the later part of the Green Revolution.
- But with the long-term structural adjustment programmes, the environment in the fertilizer sector has changed considerably since the 1990s.
 - ▶ In 1977, India's per hectare usage of NPK (nitrogenous, phosphatic and potassic) fertiliser was 24.9 kg.
 - ▶ By FY19, the per hectare usage stood at 137.6 kg.
- Increased fertiliser usage also meant a concomitant spurt in agricultural production.
 - ▶ Total food grain production increased over-three-fold from 1977-78 to FY19.
 - ▶ Per capita availability of food increasing from 155.3 kg in 1976 to 180.3 kg in 2018.
 - ▶ This has benefited India's food security situation.
- **Massive urea subsidy:** Today, urea (N of NPK) accounts for 64% of the government's subsidy for fertiliser, with 77% of its price being subsidised, while for P&K fertilisers it is just 30-35%.
 - ▶ Between FY01 and FY19, urea subsidy increased from Rs 9,500 crore to Rs 45,000 crore, and as per FY20 Budget estimates it will be Rs 50,000 crore.
- **Fertiliser subsidy has only an apparent benefit:** Continuing with the fertiliser policy may seem sensible, especially given that the food grain requirement is going to go up, and the climate crisis impact predicted is going to be quite severe for India.

- **Challenges are far severe:** However, studies show that challenges rooted in the subsidy policy for the major stakeholders—farmers, industry and the government are so serious, and the consequences of excessive fertiliser use so severe, that subsidising and producing fertilisers in the country seems a bad proposition.

Classification of fertilisers:

- **Straight fertilizers:** Straight fertilizers are those which supply only one primary plant nutrient, namely nitrogen or phosphorus or potassium. Eg. Urea, ammonium sulphate, potassium chloride (Muriate of potash- MOP) and potassium sulphate.
- **Complex fertilizers:** Complex fertilizers contain two or three primary plant nutrients of which two primary nutrients are in chemical combination. These fertilisers are usually produced in granular form. Eg. Diammonium phosphate (DAP), nitrophosphates and ammonium phosphate (NPK).
- **Mixed fertilizers:** are physical mixtures of straight fertilisers. They contain two or three primary plant nutrients. Mixed fertilisers are made by thoroughly mixing the ingredients either mechanically or manually.

◎ ANALYSIS

Development of fertiliser policy - Past to present

- Since independence, GoI has been regulating sale, price and quality of fertilizers. For this purpose, GoI passed the Fertilizer Control Order (FCO) under Essential commodity Act (EC Act) in the year 1957.
 - ▶ Fertilizer is declared as an essential commodity under EC Act.
 - ▶ Accordingly, it is the responsibility of State Governments to ensure supply of quality of fertilizers by the manufacturers/importers of fertilizers.
 - ▶ Only fertilizers which meet standards of quality laid down in the FCO can be sold to the farmers.

- ▶ State Governments are empowered to draw samples of the fertilizers anywhere in the Country and take appropriate action against sellers of Non-Standard fertilizers.
- On recommendation of Maratha Committee, Retention Price Scheme (RPS) was first introduced for nitrogenous fertilizers in 1977, and later extended to other fertilisers.
- In early 1990s, India's fiscal deficit was mounting and there was an impending danger of foreign exchange crisis.
 - ▶ In order to contain the subsidy burden, Government then announced increase in prices of urea and other fertilisers.
- Government also set up a Joint Parliamentary Committee (JPC) on Fertilizer Pricing which concluded that the rise in subsidy was mainly due to increase in cost of imported fertilizers, devaluation of rupee in July 1991 and the stagnant farm gate prices from 1980 to 1991.
 - ▶ Government decontrolled all (P&K) fertilizers which were under RPS since 1977 except Urea which continued to remain under RPS.
- Since subsidy was retained in Urea while P&K fertilizers were decontrolled, prices of the latter in the market became comparatively high.
 - ▶ As a result, production and consumption of nitrogenous fertilizers increased and consumption of P&K fertilizers decreased.
 - ▶ This led to severe imbalance in consumption of NPK fertilizers.
- Fearing imbalance fertilization of the soil, unaffordability by farmers due to increase in P&K prices, Government announced Concession Scheme for P&K Fertilizers.
- During 1997 Department of Agriculture & Cooperation (DAC) also started an all India uniform Maximum Retail Price (MRP) for fertilisers.
 - ▶ Responsibility of indicating MRP rested with State Governments.
 - ▶ The difference in the delivered price of fertilizers at the farm gate and the MRP was compensated by the Government as subsidy to the manufacturers/importers.
- **Nutrient Based Subsidy (NBS) Policy:** The product based subsidy regime (concession scheme) was proving to be a losing proposition for all stake holders viz. farmers, industry and the Government, so to overcome the deficiency of concession scheme Government introduced NBS policy 2010 onwards. Under the NBS Policy, a fixed rate of subsidy (Rs./Kg) is announced on nutrients - 'N', 'P', 'K' and 'S' by the Government on annual basis.
 - ▶ The market price of subsidized fertilizers, except Urea, is left open to manufacturers /marketers and determined through demand-supply dynamics, but any sale above the printed MRP is punishable under the EC Act.
 - ▶ The distribution and movement of fertilizers is monitored online through web based "Fertilizer Monitoring System (FMS)".
 - ▶ The NBS is passed on to the farmers through the fertilizer industry. The payment of NBS to the manufacturers/importers is done by the government.
- Methodology for working out subsidy on fertilizers is based on recommendations of the Tariff Commission (TC).
 - ▶ The complex manufacturers are divided into two groups based on feed stock for sourcing nitrogen i.e. Gas and Naphtha.
- Urea subsidy policy: Currently subsidy payment to urea units regarding the compensation of fixed cost and variable cost e.g. the cost of bag, water charges & electricity charges, is under the New Pricing Scheme (NPS)-III and Modified NPS – III.
 - ▶ New Urea Policy – 2015 (2015-2019) is applicable for 27 gas based urea units.
 - ▶ Notification dated 17th June, 2015 is applicable for 3 other naphtha based urea units.
- Government has also notified New Investment Policy (NIP) 2012 with the objective to facilitate fresh investment, make India self and reduce import dependency in urea sector.
- Direct Benefit Transfer (DBT) for fertiliser subsidy payments to producers was introduced on a pilot basis in 2016, and it was rolled out nationwide in 2018.
 - ▶ 100% subsidy is released to fertiliser companies based on actual sales made by the retailers to the beneficiaries.
 - ▶ Sale of all subsidised fertilisers to farmers/ buyers is made through point of sale (PoS) devices installed at each retailer shop and the beneficiaries are identified through Aadhaar card and voter identity card, among others.

Distortionary effects of subsidised fertiliser policy

- **Mixed impact of Concession Scheme:** The MRP of P&K fertilizers were much lower than its delivered cost. This led to increase in consumption of fertilizers during the last three decades and consequently increase in food grain production within the country. But it also caused fertiliser imbalance and poor soil health.
- **Stagnation in agricultural productivity:** Due rampant overuse of fertilisers it was observed

in recent decades that the marginal response of agricultural productivity to additional fertilizer usage has fallen sharply, leading to near stagnation in agricultural productivity and consequently agricultural production.

- **Multi / micro-nutrient deficiency:** The disproportionate NPK application and lack of application of organic manures has contributed to rising multi-nutrient deficiency (of sulphur, iron, zinc, and manganese) leading to reduction in carbon content of the soil, was ultimately stagnating agricultural productivity.
- **Fallen response ratio:** In 2005, the crop response ratio to fertilisers had fallen to 3.7 kg grains/kg fertiliser, from 13 kg gains/kg fertiliser in 1970. Low crop response ratio means lower yields. To check falling productivity, hugely subsidised urea has led to worse overuse, drastically skewing the ideal usage ratio, and altering the soil chemistry further. It is a vicious cycle.
- **Low profitability of fertiliser industry:** The fertilizer sector worked in a highly regulated environment with cost of production and selling prices being determined by the Government. Due to this fertilizer industry suffered from low profitability as compared to other sectors.
- **Lack of incentive for fertiliser industry:** Growth of fertilizer industry stagnated with virtually no investments. The industry has no incentive to focus on farmers, leading to poor farm extension services, which were necessary to educate farmers about the modern fertilizer application techniques, soil health and promotion of soil-test based application of soil and crop specific fertilizers.
- **Lack of innovation:** The industry has no incentive to invest on modernization and efficiency. Innovation in fertilizer sector has also suffered as very few new products are introduced by fertilizer companies, since they get out priced by subsidized fertilizers.
- **Increased subsidy burden of the government:** Between 2005 and 2010, Government's subsidy burden increased exponentially by 500% under the Concession Scheme. 94% of this increase was caused by increase in international prices of fertilizers and fertilizer inputs, and only 6% attributable to increase in consumption.
- **Urea import:** Given urea production stood at 23.9 mmt while consumption was 32 mmt in 2018-19, India is thus a major urea importer.
- **Difference in prices of urea and P&K fertilisers:** There is rampant overuse of urea as the difference in prices of urea and P&K fertilisers is quite large. Over time, the N P K content of the soil is thrown off balance.
 - The indicated N:P:K usage for Indian soil is 4:2:1.

- It stood at 7:2.7:1 in 2000-01. It was 6.1:2.5:1 in 2017-18.
- In Punjab and Haryana, two of India's top agrarian states, the ratio was 25.8:5.8:1 and 22.7:6.1:1, respectively.
- **Subsidising pollution:** Given Indian soils have relatively low nitrogen use efficiency; the bulk of urea applied contaminates ground water, surface water and the atmosphere. So, the current fertiliser policy is basically subsidising pollution.
 - The bulk of the applied urea is lost as ammonia (NH₃), di-nitrogen (N₂) and NO_x (nitrogen oxides).
 - Ammonia gets converted to nitrates, increasing soil acidity, and NO_x gases are major air pollutants.
 - Excess nitrogen from urea leaching into the soil, and that of the deficiency of, for instance, caused by use of too little non-urea fertilisers;
- **Health cost:** Nitrate contamination of groundwater leads to conditions such as methaemoglobinaemia (commonly known as blue baby syndrome) and stunting. The contamination limits in Punjab, Haryana and Rajasthan have reached far beyond WHO prescribed safe limit.

Where does the problem lie?

- **Uncompetitive domestic urea production:** The average cost of production for all domestic urea capacity stands at \$332.2/metric tonne. The global urea price in 2018-19 stood at \$284.6/metric tonne, add to it bagging and handling charges, it was still lower (\$300/metric tonne) than the domestic cost. Hence, according to studies conducted, domestic urea production is uncompetitive. Very few Indian plants are operating below the global price.
- **Regulated gas pricing:** In 2015, government introduced pooling of natural gas so that all fertiliser plants got gas at the same price. While the price of domestic gas is still low, the price of pooled natural gas for the fertiliser industry has increased. This is because the share of low-priced domestic gas in the total gas consumed by the industry has declined substantially (from 62% in 2014-15 to 38% in FY19). Part of the fall is because the share of supply of locally-produced gas to the power sector and other users has increased sharply.
- **Un-reasonableness of MRP:** Under NBS policy companies were allowed to fix the MRP on their own. The intention behind introduction of NBS was to increase competition among the fertilizer companies to facilitate availability of diversified products in the market at reasonable prices. However, the prices of P&K fertilizers have gone up substantially and doubts have been raised about reasonableness of the prices fixed by the companies.

- **Prices have increased:** The prices have gone up substantially also on account of increase in prices of raw materials / finished fertilizers in international market and depreciation of Indian rupee w.r.t US Dollar.
- **Unpaid subsidies and constant fixed cost:** Currently unpaid subsidies by the government to industry amount to over Rs. 39,000 crore (up from Rs 17,000 crore in 2008-09). Also, the fixed costs of the urea industry (on basis of which subsidies are determined) have been kept constant in nominal terms since 2002-03. The industry estimates its fixed costs to be much higher.

Policy suggestions and Way forward

- **Fertilizer use is not an end in itself:** Fertiliser use is only a means of achieving increased food production. Thus, increased food production/availability should be seen as an objective for the agriculture sector in the context of contributing to the broader macroeconomic objectives of society.
- **Rationalise fertiliser subsidy:** There is need to revamp fertiliser delivery and take a fresh look at input subsidies in agriculture, so as to boost much-needed investment, and reorient the cropping pattern to resource efficiency.
- **Consider import of urea:** Given the uncompetitive local production of urea, and distortionary effects of subsidy policy, domestic production of urea can be discarded and instead it can be imported from regions where natural gas is abundant and thus costs of production is low (for example, Gulf nations or Russia).
 - ▶ We can also enter into long-term contracts with them; in years when global prices shoot up, India can possibly export urea.
- **Direct cash transfer to farmers:** Instead of subsidising fertilisers, direct cash transfers can be made to farmers. With fixed amounts, farmers will likely cut down their usage of fertilisers in the interest of soil health as prices of fertilisers will be decontrolled.
 - ▶ In 2015, the High Level Shanta Kumar Committee recommended a direct cash subsidy of 'about Rs 7,000/ha' to farmers, while deregulating the fertiliser sector.
- **Deregulate gas pricing:** A lower gas price for power plants lowers the power subsidy while increasing the fertiliser one. If government encouraged more local production of gas and not insist more of it be sold to power plants, local production costs of urea could also fall.
- **Changes already under consideration:**
 - ▶ Currently, DBT is given to fertiliser companies who sell fertilisers at a subsidised rate to farmers.
 - ▶ FinMin, NITI Aayog are drawing up plans for approval of DBT for farmers directly in their bank accounts.
 - ▶ PM Kisan database will be used to provide subsidy directly; landed marginal farmers will be targeted initially.
 - ▶ Officials says a single amount can't be transferred to every beneficiary because usage of fertiliser varies from region to region; for example, Punjab farmers consume more fertilisers than Tamil Nadu farmers.
 - ▶ Government has already notified conditions to fertiliser industries to ensure reasonableness of MRP fixed.

Revisiting the fertilizer policy**Context**

With falling farm yields, exacerbated by climate effects, doubling farmers' real income by FY23 will be difficult, which means continuing to subsidise fertiliser will work against the government's stated goals for the agriculture sector. In this context, the fertilizer policy needs to be revisited


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Learning Aid

Methodology for working out subsidy on fertilizers is based on recommendations of the Tariff Commission

The complex manufacturers are divided into two groups based on feed stock for sourcing nitrogen i.e. **Gas and Naphtha**

Urea subsidy policy

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New Urea Policy – 2015

It is applicable for 27 gas based urea units. Notification dated 17th June, 2015 is applicable for 3 other naphtha based urea units

In 2015, government introduced **pooling of natural gas** so that all fertiliser plants got gas at the same price. While the price of domestic gas is still low, the price of pooled natural gas for the fertiliser industry has increased. This is because the share of low-priced domestic gas in the total gas consumed by the industry has declined substantially (from 62% in 2014-15 to 38% in FY19)

Regulated gas pricing**Unpaid subsidies and constant fixed cost**

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Issues**Un-reasonableness of MRP**

Under NBS policy companies were allowed to fix the MRP on their own. The intention behind introduction of NBS was to increase competition among the fertilizer companies to facilitate availability of diversified products in the market at reasonable prices. However, the prices of P&K fertilizers have gone up substantially and doubts have been raised about reasonableness of the prices fixed by the companies

Uncompetitive domestic urea production

The average cost of production for all domestic urea capacity stands at \$332.2/metric tonne. The global urea price in 2018-19 stood at \$284.6/metric tonne. Hence, according to studies conducted, domestic urea production is uncompetitive. Very few Indian plants are operating below the global price.

What has been/is being done ?

PM Kisan database will be used to provide subsidy directly

DBT

Currently, DBT is given to fertiliser companies who sell fertilisers at a subsidised rate to farmers

Govt has already notified conditions to fertiliser industries to ensure reasonableness of MRP fixed

FinMin, NITI Aayog are drawing up plans for approval of DBT for farmers directly in their bank accounts

Deregulate gas pricing

A lower gas price for power plants lowers the power subsidy while increasing the fertiliser one. If government encouraged more local production of gas and not insist more of it be sold to power plants, local production costs of urea could also fall

What more can be done ?**Rationalise fertiliser subsidy**

There is need to revamp fertiliser delivery and take a fresh look at input subsidies in agriculture, so as to boost much-needed investment, and reorient the cropping pattern to resource efficiency

Direct cash transfer to farmers

Instead of subsidising fertilisers, direct cash transfers can be made to farmers. With fixed amounts, farmers will likely cut down their usage of fertilisers in the interest of soil health as prices of fertilisers will be decontrolled

Consider import of urea

Given the uncompetitive local production of urea, and distortionary effects of subsidy policy, domestic production of urea can be discarded and instead it can be imported from regions where natural gas is abundant and thus costs of production is low

ANTIBIOTICS, RIVER CONTAMINATION AND HEALTHCARE

CONTEXT

- While Delhi is struggling with the issue of extremely poor air quality, the problem of poor water quality in rivers plagues the whole country. Antibiotics are contaminating rivers and posing health risks.

◎ ABOUT

- Several rivers in the world, including those in India, have been reported to have high concentrations of antibiotics such as ciprofloxacin, norfloxacin, oxytetracycline and ofloxacin.
- Hundreds of sites around the world, from Thames to Tigris, are awash with dangerously high levels of antibiotics.
- Our rivers and water bodies are life-supporting assets. But river pollution has become a major cause of concern across the world in past few decades. High concentrations of chemicals, particularly drugs, in surface and ground water pose many risks.
- In a global study researchers tested 711 sites in 72 countries and found antibiotics in 65% of them. In 111 of the sites, concentrations of antibiotics exceeded safe levels, with the worst cases more than 300 times over the safe limit. Most of the polluted sites were in Asia and Africa.
- Recent reports on presence of high amounts of myriad pharmaceutical residues in water bodies in Hyderabad highlight the sordid state of affairs in which the country is handling its urban and industrial waste, and consequent pollution of water bodies.
- 59% of annual environmental costs in India are incurred due to surface water pollution.
- Infant mortality rates, which serve as a good yardstick to access susceptibility to water-borne pathogens, are higher in India than the global average.

Ecology inter-linkages

- Biomes, which are distinct communities of flora and fauna that get formed in response to a shared climate, and tissue-specific micro biomes, which are a mix of organisms that coexist in tissues, have an intimate link with each other, jointly impacting human health.
- All major civilizations in ancient times developed along the banks of major rivers.
- Water constitutes 70% of our total body composition. Apart from its use as an essential component for survival, water is required for

agricultural and industrial activities, and power generation, thus playing a central role in global food supply, economic prosperity and the survival of all living organisms.

- **London case of 1854:** English physician John Snow was first to correctly suggest that London's 'Broad Street cholera outbreak' in 1854 was caused due to leakage of sewage full of faecal bacteria into a public well.

What is the threat?

- **Unfit for use:** Continuous discharge of untreated fluids into rivers gradually pollutes its water and makes it useless for drinking, agriculture and further industrial use.
- **Even low concentrations are dangerous:** As pharmaceuticals are designed to interact with living organisms at low doses, even low concentrations affect freshwater ecosystems and endanger both marine and human life.
- **Environmental harm:** An OECD report estimates that 10% of pharmaceuticals have potential to cause environmental harm—hormones, painkillers and antidepressants are the biggest concerns.
- **Affect algae and other organisms:** Discharge of oral contraceptives is causing feminization in fish and amphibians, and residues of psychiatric drugs are altering fish behaviour.
- **Antibiotic resistance:** Antibiotic pollution is one of the key routes by which bacteria are able develop resistance to life-saving medicines, rendering them ineffective for human use. A lot of resistance genes seen in human pathogens originated from environmental bacteria.
 - ▶ According to the UN, rise in antibiotic-resistant bacteria is a global health emergency that could kill 10 million people by 2050.
- **Lack of adequate technology:** Lower-income countries often lack the technology to remove these drugs, and this makes the threat more serious.
- **Has mobility:** Even if wealthy countries wipe out antibiotic pollution, drug-resistant microbes can still reach to them through sick travellers from lower-income countries. They might move around the world as migrating birds. They might even arrive in imports of animal-based foods.

- The health hazard is more than only about consumption of contaminated water.
 - ▶ A study identified irrigation as a link between water pollution and health.
 - ▶ Another study highlighted bathing, food and person-to-person contact as modes of disease transmission from polluted water.
 - ▶ One-grade deterioration in Chinese river water quality was associated with a 9.7% increase in digestive cancer incidence.
 - ▶ Pregnant women being exposed to a 10% increase in agrichemical levels in Indian rivers during their first month of conception was associated with an 11% increase in likelihood of one-year mortality among new-borns.
 - ▶ Infants are also highly susceptible to water-borne pathogens.

What are the causes?

- **Common causes:** Common causes include industrial discharge, open defecation; untreated waste from chemical and pharmaceutical industries, waste generated by hospitals, clinics and animal husbandry units.
- **Untreated industrial discharge:** Indian industries discharge untreated or partially treated water into nearby water bodies or rivers, leading to severe water pollution and water toxicity.
 - ▶ Drugs find their way into rivers and soil via human and animal waste, and leaks from wastewater treatment plants, and drug manufacturing facilities.

Superbugs:

- As microbes encounter drugs in the environment, they evolve changes. Called mutations, these changes allow germs to survive the drugs. Later, people infected with these microbes may find themselves at risk of life-threatening disease.

Steps taken to improve the situation in India

- In 1985, Indian government launched the Ganga Action Plan (GAP) to clean river Ganga.
 - ▶ Later GAP was extended to other rivers in Ganga basin, and all other rivers of India.
 - ▶ Currently, 190 towns in 20 states along 41 rivers are regulated under what is now known as the National River Conservation Plan (NRCP), India's flagship water pollution clean-up policy.
- Studies suggest that providing clean water supply and sanitation to whole of India would save \$3-8 billion by way of forgone earnings.
- **GAP is yet to yield tangible results:** While India wants to clean its rivers by 2030, the target seems difficult to achieve, as government's own data reveal numbers of polluted stretches of rivers across country have increased in past few years.

Situation of World Rivers and other sites

- Many sites with unsafe levels of the drugs contained more than one antibiotic.
- **River Thames:** High levels of Ciprofloxacin (treats infection of the skin and urinary tract).
- **River Danube:** High levels of Clarithromycin (used to treat respiratory tract infections such as pneumonia and bronchitis).
- **Bangladesh (Site):** Very high level of Metronidazole (used to treat vaginal infections).
- The most commonly found one was Trimethoprim (used to treat urinary-tract infections).
- Other commonly found antibiotic was Sulfamethoxazole.

CONCLUSION

Unless adequate measures are taken to manage risks, the situation is set to worsen, as the use of pharmaceuticals rises with ageing populations, advances in healthcare, rising meat and fish production, and increased use of antibiotics for livestock. Improving the safe management of health and hygiene services in low-income countries is critical in fight against antimicrobial resistance.

INDIA'S NEW MAPPING EXERCISE

CONTEXT

- Government of India is set to launch a new mapping exercise to accommodate the needs of present times.

◎ ABOUT

- The last mapping exercise in India took place nearly 200 years ago by George Everest's survey.
- A new mapping exercise is being planned by the country's oldest scientific organization, the Survey of India (SOI).
- The objective is to drag India into the realm of other modern economies and digitally update maps of India.
- The idea is to create highly accurate, free-to-use map layer, which is available in the public domain.
- For now, the plan is to make data public, and charge a small amount for commercial use. Earlier, the data was sold.
- Currently, every private entity and state government has an in-house mapping effort.
 - ▶ Flipkart, for example, uses machine learning to convert addresses into sub-regions, which are essentially neighbourhood names suggested by field executives.
- UK experience: United Kingdom, who's SOI-equivalent, the Ordnance Survey, announced in 2018 to make taxpayer-funded digital maps freely available for businesses and citizens.

How will it be done?

- SOI's plan is to develop a high-resolution 1:500 Geoid model of the country. That essentially means 1 cm on the map will represent 500 cm on the ground, which is roughly equivalent to showing the boundaries of each house.
- Like the decades-old revenue maps, these maps would show the details of village boundaries, canals, agriculture field limits and roads, with a high accuracy of 10 cm, which is critical for land records.
 - ▶ Present topographical maps available in public domain are at a scale of 1:50,000.
- The project has already begun in three states—Haryana, Maharashtra and Karnataka— and about 300 drones are expected to be used for the exercise. The deadline is 2021.
- SOI's plans to create a complete 3-D model of cities, which would include details about the altitude above sea level of each point.

- SOI has established about 2,500 ground control points that are uniformly distributed throughout the country, whose standardized coordinates (latitude-longitude) are known.
 - ▶ For improved accuracy, SOI would set up an additional 700-1,000 ground control points to continuously operate as GPS reference stations, at a distance of 50-60km from each other.
 - ▶ Professionally operated drones would then cover the remaining gaps.
- Data will be made publicly available for everyone through map APIs (application programming interfaces).

Problems with current mapping system

- Land and landownership is not clear. There are a lot of encroachments.
 - ▶ Even in World Bank's Ease of Doing Business rankings, India ranks low on "registering property" metric.
 - ▶ Land disputes clog up an already overburdened court system.
 - ▶ According to studies, market distortions in India lead to 1.3% loss in GDP annually.
- 5 million e-commerce packages are expected to shuttle across the country every single day by 2020. Without proper ownership and address mapping there are doubts if delivery will be accurate and seamless.
 - ▶ Addresses are very hard to determine in India, unlike other countries.
- Today, people have their khasra (survey) number, but have no idea where this khasra (survey) number is located.
- Till now, the limited efforts to improve India's maps have largely focused on urban areas, where most businesses generate their revenue, and swathes of rural areas have remained unmapped, especially the abadi (habitation) areas in a village.
 - ▶ Till today they were not seen as a source of revenue and have no formal address system.
- Everything in India is copyrighted or licensed and that's where the problem lies in terms of data sharing.
 - ▶ Each government department, be it IT or SOI, have their own map data, which they do not readily share with individuals.

- ▶ They usually share it in PDF format which is not readily usable.
- In the 1950s, India opened up two series of maps—the open series for public use at 1:50,000 scale and defence series maps, which are meant exclusively for security agencies.
- ▶ While the defence services remain the core client of government-generated data, the demands of the fast-growing commercial sector have been largely ignored.
- ▶ Only what SOI thinks is not classified is shared with the public because they are not concerned about the everyday needs of the people.
- Our basic understanding of maps is limited to Google Maps, mostly through Uber/Ola or delivery apps. But, as a nation, we cannot be dependent on other countries for our mapping data.
- The urban landscape changes every day--roads, businesses, restaurants, ATMs--and maps need to be updated daily, or they lose value.
- Current maps pose challenge because there is no proper and accurate data on height.

Benefits of the new maps

- People will now know and be able to locate their survey number. This will enable them to check their land boundaries and ownership online, rather than depending on the 'Patwari'.
- For the first time, we will know the exact boundaries of land. It will also facilitate the registry and transfer processes.
- Citizens living in the Abadi areas will be given ownership cards, which will allow them to buy/sell their land and even take loans on them.
 - ▶ This could transform the economy, because the government will also get fixed revenue, which was not coming in till now.
- The move will bring greater transparency into land acquisition processes and can potentially help deal with encroachments across cities, especially those on government land.
- Google maps can help in navigation but is not very helpful to plan government infrastructure project or build a new railway line. The new survey will solve this problem.
- 3-D modelling of cities in new maps will be an important input for planning a city's drainage profile, especially given the future threat of inundation.
- ▶ When integrated with weather forecast, this could help India Meteorological Department to provide impact-based forecasts ahead of severe rainfall events.
- ▶ In future, with introduction of autonomous vehicles, high level of accuracy will be needed, which can come from these maps.

Creating own maps

- The lack of accessibility to government maps, led to the emergence of an open-street mapping movement in early 2007.
 - ▶ Youngsters armed with GPS sensors and internet began mapping their local areas using the Wikipedia-like user-generated "Open Street Map" (OSM).
 - ▶ Private organisation like 'MapmyIndia' has also been creating digital maps.
- OSM is a collaborative volunteer project to create crowd sourced editable maps that can be freely used and shared by anybody under an open licence.
 - ▶ Since they are freely accessible, they are particularly attractive to start-ups that shift from Google Maps in order to cut down costs.
- Some volunteer organisations started mapping the public transport system in Chennai and Mumbai, and then, the entire country.
- To gain the OSM advantage, in 2018, SOI also opened itself to crowdsourcing through a mobile app called "SAHYOG".
 - ▶ SOI also launched web portals to improve access to digital maps.
 - ▶ But government efforts till now have been patchy.

CONCLUSION

- For long, government had looked at survey data purely through a political/security lens and did not know how to release it strategically in order to earn royalty for the exchequer. Publicly available Geospatial data can transform governments, businesses, and communities for the better. Private sector companies must be incentivized to invest in improving official spatial data.

A WORLD WITHOUT NATO?

CONTEXT

- Reaching 70 is an extraordinary achievement for the North Atlantic Treaty Organisation.

◎ BACKGROUND

- NATO is an alliance of 28 countries bordering the North Atlantic Ocean.
- It includes the United States, most European Union members, Canada, and Turkey.
- NATO is an acronym for the North Atlantic Treaty Organization.
- The United States contributes three-fourths of NATO's budget.
- NATO's mission is to protect the freedom of its members. Its targets include weapons of mass destruction, terrorism, and cyber-attacks.
- If the stability is threatened, NATO would defend non-members.
- NATO's headquarters are located in Haren, Brussels, Belgium.

Member Countries

- NATO's 28 members are: Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, United Kingdom, and the United States.
- Each member designates an ambassador to NATO.
- They send the appropriate official to discuss NATO business. That includes a country's president, prime minister, foreign affairs minister or head of the department of defense.

Alliances

- NATO participates in three alliances. They expand its influence beyond its 28 member countries.
- The Mediterranean Dialogue seeks to stabilize the Middle East. Its non-NATO members include Algeria, Egypt, Israel, Jordan, Mauritania, Morocco, and Tunisia. It began in 1994.
- The Istanbul Cooperation Initiative works for peace throughout the larger Middle East region. It includes four members of the Gulf Cooperation Council. They are Bahrain, Kuwait, Qatar, and the United Arab Emirates. It began in 2004.

- NATO cooperates with eight other countries in joint security issues. There are five in Asia. They are Australia, Japan, Republic of Korea, Mongolia, and New Zealand. There are two in the Middle East: Afghanistan and Pakistan.

History

- The founding members of NATO signed the North Atlantic Treaty on April 4, 1949.
- It worked in conjunction with the United Nations, the World Bank, and the International Monetary Fund.
- NATO's primary purpose was to defend member nations from threats by communist countries.

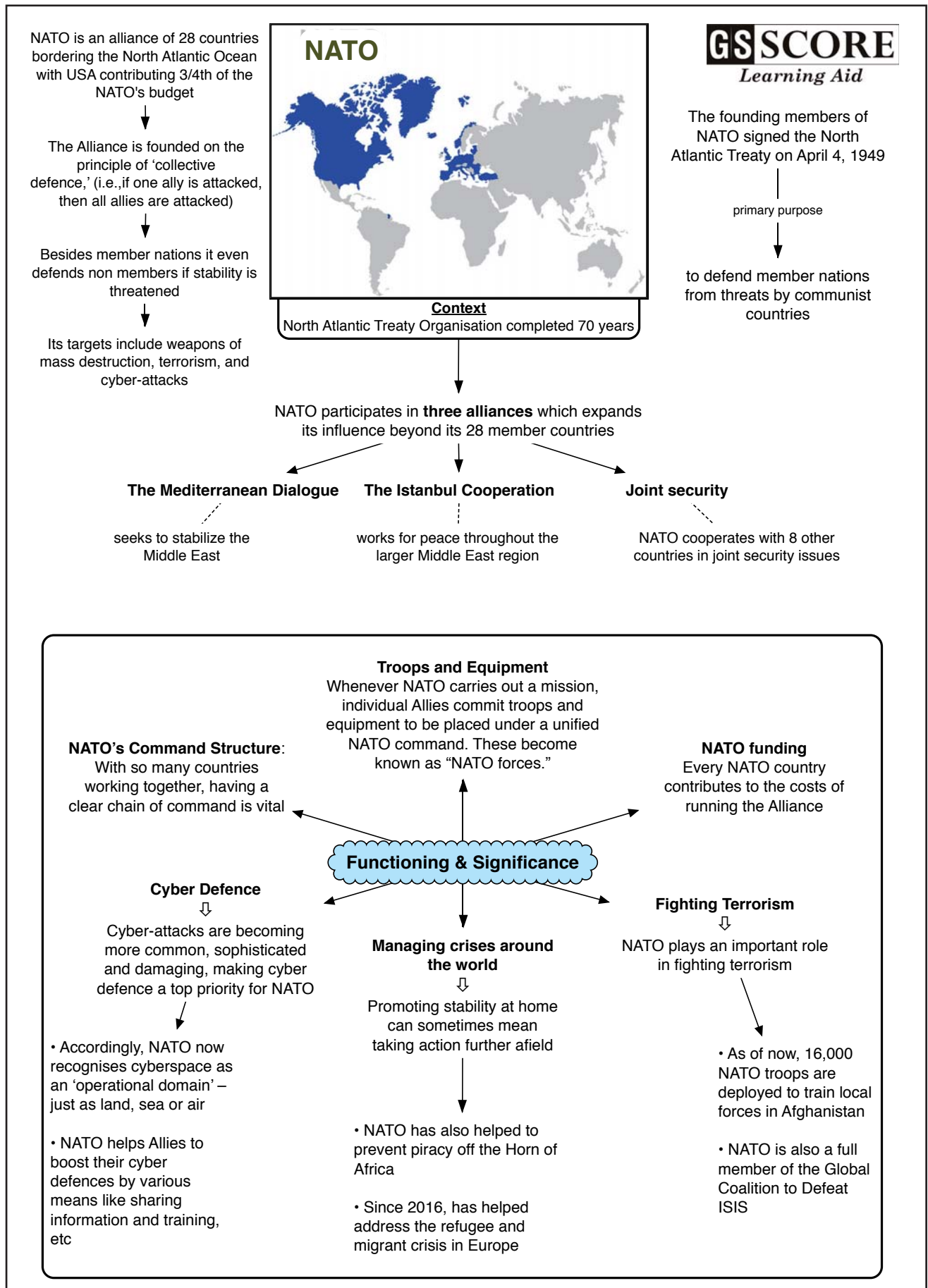
Significance of NATO

- **Collective defence:** The North Atlantic Treaty Organization (NATO) was founded in 1949 and is a group of 29 countries from Europe and North America that exists to protect the people and territory of its members. The Alliance is founded on the principle of 'collective defence,' meaning that if one NATO Ally is attacked, then all NATO Allies are attacked.
- **Managing crises around the world:** Promoting stability in our neighbourhood and protecting our people at home can sometimes mean taking action further afield. NATO has also helped to prevent piracy off the Horn of Africa and, since 2016, has helped address the refugee and migrant crisis in Europe.
- **Fighting Terrorism:** NATO plays an important role in fighting terrorism, contributing 16,000 NATO troops to train local forces in Afghanistan. NATO is also a full member of the Global Coalition to Defeat ISIS.
- **Troops and Equipment:** Whenever NATO carries out a mission, individual Allies commit troops and equipment to be placed under a unified NATO command. These become known as "NATO forces."
- **NATO's Command Structure:** With so many countries working together, having a clear chain of command is vital. Military and civilian personnel from all member states work together every day within NATO's 'Command Structure.'

- **NATO funding:** Every NATO country contributes to the costs of running the Alliance. By far the Allies' biggest contribution comes in the form of taking part in NATO-led missions and operations.
- **Cyber Defence:** Cyber-attacks are becoming more common, sophisticated and damaging, making cyber defence a top priority for NATO.

In fact, NATO now recognises cyberspace as an 'operational domain' – just as land, sea or air. NATO helps Allies to boost their cyber defences by sharing information about threats, investing in education and training, and through exercises. NATO also has cyber defence experts that can be sent to help Allies under attack.





US-CHINA TRADE WAR – IMPLICATIONS AND OPPORTUNITIES FOR INDIA

CONTEXT

- Recently a study by the UN trade and investment body has said that India has emerged as a winner amidst the US-China trade war.

◎ BACKGROUND

- According to the World Bank's Global Economic Prospect, the global economy has slowed to its lowest pace in three years because international trade and investment have been weaker than expected. International trade has been severely affected by the trade war between the US and China.
- Over the course of 2018, the US administration started implementing a series of trade measures to curtail imports, first targeting specific products (steel, aluminum, solar panels and washing machines) and then specifically targeting imports from China.
- In the early summer 2018, US and China raised tariffs on about \$50 billion worth of each other's goods. This escalated further in September 2018 when the US introduced an additional 10% to cover \$200 billion worth of Chinese imports, to which China retaliated by imposing tariffs on imports from the US worth an additional \$60 billion.
- In June 2019, the US increased the tariffs further, to 25%. China responded by raising the tariffs on a subset of products that were already subject to tariffs. In September 2019, the US imposed 15% tariffs on a large subset of the remaining \$300 billion worth of imports from China not yet subject to tariffs.
- India gained about \$755 million in additional exports, mainly of chemicals, metals and ore, to the US in the first half of 2019 due to the trade diversion effects of Washington's tariff war with China, according to a study by the UN trade and investment body.

- A trade war starts when a nation attempts to protect a domestic industry and create jobs. In the short run, it may work. But in the long run, a trade war costs jobs and depresses economic growth (by suppressing demand for goods as they become expensive) for all countries involved.
- It also triggers inflation when tariffs increase the prices of imports.

Four Methods of Trade Protectionism

- One way is to enact tariffs that tax imports. That immediately raises the price of the imported goods. They become less competitive when compared to local goods. This method works best for countries with a lot of imports, such as the United States.
- A second way of protecting trade is when the government subsidizes local industries. This makes the products cheaper even when shipped overseas. Subsidies work even better than tariffs. This method works best for countries that rely mainly on exports.
- A third method is to impose quotas on imported goods. This method is more effective than the first two. No matter how low a foreign country sets the price through subsidies, it cannot ship more goods.
- Fourth type of trade protectionism is subtle. It is a deliberate attempt by a country to lower its currency value. This would make its exports cheaper and more competitive. This method can result in retaliation and start a currency war.

Criticism of US Action

- On January 22, 2018, US imposed tariffs and quotas on imported Chinese solar panels and washing machines. China is a world leader in solar equipment manufacturing. The World Trade Organization ruled that the United States acted unfairly in levying the tariff.
- The head of the U.S. Chamber of Commerce said Trump's trade war could cost 2.6 million U.S. jobs.

◎ ANALYSIS

- Trade war is a subset of Trade Protectionism.
- It is a conflict between two or more nations regarding trade tariff imposition on each other's goods.
- A trade war is usually initiated when a nation imposes tariffs or quotas on imports and foreign countries retaliate with similar forms of trade protectionism. As it escalates, a trade war reduces international trade.

- Eight countries have filed formal complaints with the World Trade Organization. Many of these countries, like Canada, India, and the European Union, are allies. The countries have argued that the US cannot justify the tariffs on the basis of national security.

Advantages

- Imposing tariffs protects the economy from foreign competitors. This provides the new companies time to develop their own competitive advantages.
- Protectionism also temporarily creates jobs for domestic workers.
- The protection of tariffs, quotas, or subsidies allows domestic companies to hire locally.
- However, these benefits end once other countries retaliate by erecting their own protectionist measures.

Disadvantages

- In the long term, trade protectionism weakens the industry. Without competition, companies within the industry have no need to innovate.
- Eventually, the domestic product declines in quality and becomes more expensive than what foreign competitors produce.
- Increasing protectionism can further slow down economic growth (weak consumer demand owing to inflation). It would cause more layoffs, not fewer.
- If the country closes its borders, other countries will do the same. This could cause layoffs among the workers who owe their jobs to exports.
- Trade war in the long term would hamper global economy due to reduced trade volumes among nations. The IMF noted that the US-China trade tension was one factor that contributed to a "significantly weakened global expansion" in 2018, as it cut its global growth forecast for 2019.
- The trade tensions could result in an increasingly fragmented global trading framework, weakening the rules-based system that has underpinned global growth, particularly in Asia, over the past several decades.

Implications

- Sharp decline in bilateral trade:
 - Higher prices for Chinese consumers, losses for US exporters and trade gains for other countries. Of the \$35 billion Chinese export losses in the US market, about \$ 21 billion (or 62%) was diverted to other countries, while

the remainder of \$14 billion was either lost or captured by the US producers.

- Higher prices for consumers:
 - Tariffs imposed by the United States on China are economically hurting both countries and consumers in the US and China. The analysis shows that US tariffs caused a 25% export loss, inflicting a \$35 billion blow to Chinese exports in the US market for tariffed goods in the first half of 2019
- Trade diversion effects:
 - Increased imports from countries not directly involved in the trade war.
 - The trade diversion effects of the US-China tariff war for the first half of 2019 at about \$21 billion, implying that the amount of net trade losses corresponds to about \$14 billion.
 - These trade diversion effects have brought substantial benefits for Taiwan (province of China), Mexico, and the European Union.
 - Trade diversion benefits to Korea, Canada and India were smaller but still substantial, ranging from \$0.9 billion to \$1.5 billion
 - The US tariffs on China resulted in India gaining \$755 million in additional exports to the US in the first half of 2019 by selling more chemicals (\$243 million), metals and ore (\$181 million), electrical machinery (\$83 million) and various machinery (\$68 million) as well as increased exports in areas such as agri-food, furniture, office machinery, precision instruments, textiles and apparel and transport equipment

Opportunities

- India has an increasingly widening trade gap with China. Ongoing trade war may be an opportunity for India to reduce it significantly.
 - India can export the surplus agricultural products such as soybean to China after decrease in the export from USA.
- India can become China's software industry partner, as it looks to replace the US hegemony of technology companies. India needs some strong pegs to pitch to China, and India's software industry is capable of graduating to a higher level.
- Growing trade tensions between China and the US could enhance the flow of Chinese investment towards India.
- India can explore opportunities to export the demands of goods by the US after restricted entry of Chinese goods in the US economy. Of the \$300 billion in Chinese exports that are subject to US tariffs, only about 6% will be picked up by firms in the US, according to a report released by the UN Conference on Trade and Development (UNCTAD).

Here, India can be benefited along with other nations.

- India may be able to increase its exports in textile, garments and gems and jewellery to US if Chinese exports to the US slow down.

Concerns

- America has a trade deficit with every nation of the G7 grouping and that deficit has been increasing each year. With India, the US has a trade deficit of \$21.3 billion, which on the contrary is a trade surplus (FOREX earning) for India, which is at risk due to the ongoing trade war.
- US wants duty reduction from India in Harley Davidson bikes, stents, knee implants and medical devices and dairy and poultry products among others. India has already reduced duty on high powered bikes to 50% from 75%. However, further pressure for duty reduction can affect the domestic production.
- India should remain cautious of China's intention of dumping its overproduction of steel and aluminium due to restrictions imposed by the US.

- The rising price of oil threatens to widen India's current account deficit, impacting India's macroeconomic stability.
- India's already struggling currency may further decline in value due to the ongoing trade war.

◎ CONCLUSION

- Even though it is a lengthy and time consuming process, the settlement of disputes through international conventions and rules is the need of the hour.
- WTO dispute settlement resolution mechanism should be approached instead of unilateral decisions. The benefit of the WTO process is that it prevents the damaging consequences of trade protectionism. Nations can resolve their disputes through WTO instead of raising tariffs.
- India can derive maximum benefits of the opportunities created by the ongoing trade war between the US and China. However, it should remain careful and prepare for the challenges arising out of the trade war.

US-China Trade War – Implications and Opportunities for India

GSSCORE
Learning Aid

Context

Recently a study by the UN trade and investment body has said that India has emerged as a winner amidst the US-China trade war

International trade has been severely affected by the trade war between the US and China

According to the World Bank's Global Economic Prospect

The global economy has slowed to its lowest pace in 3 years because international trade and investment have been weaker than expected



Trade Diversion

Increased imports from countries not directly involved in the trade war

Of the \$35 billion Chinese export losses in the US market, about \$ 21 billion (or 62%) was diverted to other countries, while the remainder of \$14 billion was either lost or captured by the US producers

India gained about \$755 million in additional exports, mainly of chemicals, metals and ore, to the US in the first half of 2019 due to these trade diversion effects

India can explore opportunities to export the demands of goods by the US after restricted entry of Chinese goods in the US economy

India may be able to increase its exports in textile, garments and gems and jewellery to US if Chinese exports to the US slow down

vis-a-vis USA

According to UNCTAD, of the \$300 billion in Chinese exports that are subject to US tariffs, only about 6% will be picked up by firms in the US

Opportunities for India

India can export the surplus agricultural products such as soybean to China after decrease in the export from USA

India can become China's software industry partner, as it looks to replace the US hegemony of technology companies

vis-a-vis China

India has an increasingly widening trade gap with China

Ongoing trade war may be an opportunity for India to reduce it significantly

Growing trade tensions between China and the US could enhance the flow of Chinese investment towards India

What India should watch out for ?

With India, the US has a trade deficit of \$21.3 billion, which on the contrary is a trade surplus (FOREX earning) for India, which is at risk due to the ongoing trade war

US wants duty reduction from India on various goods
↓
India has already reduced duty on high powered bikes to 50% from 75%. However, further pressure for duty reduction can affect the domestic production

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Even though it is a lengthy and time consuming process, the settlement of disputes through international conventions and rules is the need of the hour

WTO dispute settlement resolution mechanism should be approached instead of unilateral decisions

The benefit of the WTO process is that it prevents the damaging consequences of trade protectionism

Nations can resolve their disputes through WTO instead of raising tariffs

ENGLISH LANGUAGE AS MEDIUM IN GOVERNMENT SCHOOLS

CONTEXT

- Recently, the Government of Andhra Pradesh introduced 'English' as the medium in schools from Classes I-VI. This has pushed us to rethink ideas around mother tongue education, local languages and English as a medium of education to further economic and aspirational goals.

◎ BACKGROUND

- Andhra Pradesh government has introduced English as the medium in schools from Classes I-VI, while students are expected to pick one of the two local languages, Telugu or Urdu, as compulsory subjects.
- Action shall be taken for reviving the English Language Teaching Centers and District English Centers (DECs) and re-locate them in District Institutes for Education and Training (DIETs).
- According to the state government, 82% of upper caste students study in English medium schools. While this figure is only 39.2% for ST students and 49% for SCs students.
- By introducing English as a medium of education, the government aims to fulfil a 'welfare agenda' to bring all students at par, and make children 'industry ready'.
- State government has signed MoUs with language universities and institutes to train teachers on a wide scale, and has also recruited new teachers for this purpose.
- The government later wants to extend this programme from classes VII-X.
- The government wishes to transform the education sector in the state and help it emerge as 'VIDHYANDHRA PRADESH'.

◎ ANALYSIS

History of choice of language in India

- The English language has survived from being labelled as a scheming, rootless tongue of the oppressor, and served a termination notice after independence, to surviving 70 years of the republic and acquiring an emancipation role.
- After independence it was the Telugu region that led the demand for linguistic reorganization of Indian states. It had sought unflinching primacy to the regional tongue.
- The fast unto death of Potti Sriramulu in 1952 had forced Jawaharlal Nehru to constitute the States Reorganisation Commission in 1953.

- However, in 2014, the Telugu speaking region split into two as Telangana and Andhra Pradesh, owing to cultural differences.

Reasons cited for English-medium education in government schools

- English is the latest cure for the jobs crisis.
- English language has become a symbol of progress in current times.
- Children of affluent people study in English medium, but when it comes to protecting Telugu language and culture, is it only the responsibility of the downtrodden and rural youth. This according to advocates of the decision is unfair.
- Making students ready for employment by 2041.
- Implications made in government reasoning:
 - Affluence and English are natural allies,
 - English has power to pull the backward out of their backwardness,
 - English is embedded with an egalitarian intent.

A way to revive government teaching jobs

- With privatization, education does not remain a welfare priority government.
- The need to rescue government schools is also to save government jobs.
- When parents start sending children to private English medium schools, then government teachers are left with dwindling students, which will eventually sink the feasibility of running government schools.
- The latest decision also helps reverse the scare of employment erosion in rural, semi-rural and fringe urban areas.

English - an aspirational appeal

- English is aspirational. With the job loss fears engulfing governments and the aspirational element in the masses, adopting English appears to be a pragmatic policy.
- In 2011, a section of Dalits floated the idea of an English goddess.

- ▶ A two-feet tall statue was modelled after the Statue of Liberty and was presented as a symbol of Dalit renaissance.
- ▶ Dalit activists often cite Ambedkar's quote "English was the milk of a lioness and only those who drink it will roar."

Democratising Education

- English-medium education to their children is a dream for a large number of parents in India.
- However, a lot of them who often come from disadvantaged sections like SC, ST, OBC and minorities are unable to realize this dream because of poverty.
- Introduction of English-medium in government schools is a democratising step as it helps the disadvantaged's access to English education.
- It has an equalizing effect through reduction of educational inequalities.

Better job opportunities

- In today's world it is almost impossible to disagree with the fact that proficiency in English is quintessential to grab better employment opportunities.
- Private companies test English language skills. Study reports that 90% of employers in India say that English language skills are important for their organization.
 - ▶ English figured among the top three skills, along with learning agility and adaptability, which employers look for in India according to the findings of India Skills Report 2019.
- Also selection to various government sector jobs like Union Public Service Commission (UPSC), Staff Selection Committee (SSC) and banking demands proficiency in English language.

Bias in the IT industry

- A perceptive study concluded that the IT industry is not inclusive. That its workforce comes primarily from middle class, urban and upper caste backgrounds because they possess social capital (of the right kind of English) that firms desire.
- HR Managers make an implicit association between language and social background, and identify persons coming from small towns with 'communication problems' because of their heavy mother tongue influence.

English vs. Hindi debate in South India

- While there is resistance to imposition of Hindi in South India, English is accepted as it is less threatening with regard to racial and ethnic

dominance, and more promising of an economic future.

- English, by virtue of being a foreign language, has claims to neutrality when it comes to caste and religious violence. That makes it especially attractive to Dalit's and OBCs.

Lessons from Karnataka

- Karnataka took the decision to introduce English as a medium in public schools in quasi-rural centres, and other government primary schools.
- The core reasoning for English medium in Karnataka was on similar lines as for Andhra Pradesh today.
 - ▶ State government schools had an enrolment rate less than 10%.
 - ▶ No. of Kannada medium schools had dropped relative to English medium schools.
 - ▶ Therefore, to retain government schools, which perform the basic duty of providing access to education, was to make an attractive offer of English medium sections.
- As per government reports, an encouraging number of students opted for the new English medium sections.

Criticisms

- **Christianity propaganda:** According to some critics, the reason for introduction of English is to proselytize the poor of Andhra Pradesh into Christianity.
- **Non-native setting:** There are doubts on effectiveness of English being taught in a non-native setting.
- **Types of English:** There is also the issue of different versions, slangs, accents etc. of English that may develop. Creation of different types of English may create differing identities among their users.
 - ▶ Certain kinds of English come with a cultural capital which opens doors to elite institutions and company, while certain other kinds of English freeze you at a particular point in the social ladder.
- **Benefit of mother tongue:** A parallel research asserts greater benefits of local language instruction for children.
 - ▶ Some studies suggest that a new language in the early school years, especially one that is not used outside school, can become a barrier to learning.
 - ▶ This model suggests the opposite of the Andhra model: local language as the medium with English as compulsory language.
- **Duality:** Linguistic researchers argue that if English moves ahead as planned, then there will

be some kind of bipolar anguish in the child to speak science, commerce etc. in one language, and emotion, heritage in another.

- **Endangering regional language:** Some critics fear that the proposed move would 'endanger' Telugu language and increase dropout rates.
 - ▶ With introduction of English in such a pervasive way, the idea of linguistic state may itself be threatened.
- **Quality and preparedness issue:** Questions are raised for the haste with which the government is bringing this reform without sufficient preparation.
 - ▶ Training teachers through short-term language courses would not transform them into teachers for English-medium schools.
 - ▶ There are doubts on the quality of resources, and the quality of teacher training that government can impart.

How can fear of endangerment of Telugu (other regional Languages) be addressed?

- Giving more weightage to Telugu subject.
- Revising the syllabus to include Telugu meanings of important concepts from other disciplines.
- Setting minimum marks needed to score in Telugu subject to make students eligible for State government awards.
- Telugu language development fund should be set up to popularize the language.

- Making creative writing in Telugu a compulsory elective in every class to allow children unleash their creative potential in their mother tongue in the formative years which would also help in their overall development.
- Making Telugu a compulsory subject in every state government exam and consider the marks scored for final selection.

Other schemes of Andhra Pradesh Government

- **AMMA VODI:** a scheme that gives a financial assistance of Rs 15k to mothers from BPL families for sending their children to school.
- **NADU-NEDU:** a programme for revamping school infrastructure.

CONCLUSION

- While the move to introduce English medium in Andhra government schools has attracted criticism, if implemented well, it could bring transformational changes in the education sector. Given that this move will have not only economic effects, but also cultural and social, government must do thorough research involving researchers and academicians and go ahead with the plan only with sufficient preparation. A pilot study can be conducted to identify the challenges before implementing such schemes on a wider scale.

SHOULD RESERVATION POLICY BE RELOOKED?

CONTEXT

- Recently, government has sought review of SC judgment that creamy layer should be applied to SC/ST.

◎ BACKGROUND

- The union government has called upon the Supreme Court to form a seven judge Bench to reconsider the formulation in M. Nagaraj vs Union of India (2006) that creamy layer should be applied to the SC and ST communities.
- In Jarnail Singh case (2018), another Constitution Bench reaffirmed the applicability of creamy layer norms to SC/STs.
- While the Centre has accepted that the 'creamy layer' norm is needed to ensure that only those genuinely backward get reservation benefits, it is justifiably upset that this principle has been extended to Dalits, who have been acknowledged to be the most backward among the backward sections. Another problem is the question whether the exclusion of the advanced sections among SC/ST candidates can be disallowed only for promotions. Most of them may not fall under the 'creamy layer' category at the entry level, but after some years of service and promotions, they may reach an income level at which they fall under the 'creamy layer'. This may result in the defeat of the object of the Constitution amendments that the court itself had upheld to protect reservation in promotions as well as consequential seniority. Another landmark verdict in the history of affirmative action jurisprudence may be needed to settle these questions.

Constitutional Provisions Governing Reservation in India

- Part XVI deals with reservation of SC and ST in Central and State legislatures.
- Article 15(4) and 16(4) of the Constitution enabled the State and Central Governments to reserve seats in government services for the members of the SC and ST.
- The Constitution was amended by the Constitution (77th Amendment) Act, 1995 and a new clause (4A) was inserted in Article 16 to enable the government to provide reservation in promotion.
- Later, clause (4A) was modified by the Constitution (85th Amendment) Act, 2001 to provide consequential seniority to SC and ST candidates promoted by giving reservation.

- Constitutional 81st Amendment Act, 2000 inserted Article 16 (4 B) which enables the state to fill the unfilled vacancies of a year which are reserved for SCs/STs in the succeeding year, thereby nullifying the ceiling of fifty percent reservation on total number of vacancies of that year.
- Article 330 and 332 provides for specific representation through reservation of seats for SCs and STs in the Parliament and in the State Legislative Assemblies respectively.
- Article 243D provides reservation of seats for SCs and STs in every Panchayat.
- Article 233T provides reservation of seats for SCs and STs in every Municipality.
- Article 335 of the constitution says that the claims of STs and STs shall be taken into consideration constitutently with the maintenance of efficacy of the administration.

Historical background

- William Hunter and Jyotirao Phule in 1882 originally conceived the idea of caste-based reservation system.
- The reservation system that exists today, in its true sense, was introduced in 1933 when British Prime-Minister Ramsay Macdonald presented the 'Communal Award'.
- The award made provision for separate electorates for Muslims, Sikhs, Indian Christians, Anglo-Indians, Europeans and the Dalits.
- After long negotiations, Gandhi and Ambedkar signed the 'Poona Pact', where it was decided that there would be a single Hindu electorate with certain reservations in it.
- After independence, initially reservations were provided only for SCs and STs.
- OBCs were included in the ambit of reservation in 1991 on the recommendations of the Mandal Commission.
- In the Indra Sawhney Case of 1992, the Supreme Court while upholding the 27 percent quota for backward classes, struck down the government notification reserving 10% government jobs for economically backward classes among the higher castes.

- Supreme Court in the same case also upheld the principle that the combined reservation beneficiaries should not exceed 50 percent of India's population.
- The concept of 'creamy layer' also gained currency through this judgment and provision that reservation for backward classes should be confined to initial appointments only and not extend to promotions.
- Recently, the Constitutional (103rd Amendment) Act of 2019 has provided 10% reservation in government jobs and educational institutions for the "economically backward" in the unreserved category.
- The Act amends Articles 15 and 16 of the Constitution by adding clauses empowering the government to provide reservation on the basis of economic backwardness.
- This 10% economic reservation is over and above the 50% reservation cap.

● ANALYSIS

Why reservation needed?

- To correct the historical injustice faced by backward castes in the country.
- To provide a level playing field for backward sections as they cannot compete with those who have had the access of resources and means for centuries.
- To ensure adequate representation of backward classes in the services under the State.
- For advancement of backward classes.
- To ensure equality as basis of meritocracy i.e. all people must be brought to the same level before judging them on the basis of merit.

Judicial Scrutiny of Reservation

- The State of Madras v. Smt. Champakam Dorairajan (1951) case was the first major verdict of the Supreme Court on the issue of Reservation. The case led to the First amendment in the constitution.
- The Supreme Court in the case pointed out that while in the case of employment under the State, Article 16(4) provides for reservations in favour of backward class of citizens, no such provision was made in Article 15.
- Pursuant to the Supreme Court's order in the case the Parliament amended Article 15 by inserting Clause (4).
- In Indra Sawhney v. Union of India (1992) case the court examined the scope and extent of Article 16(4).

- The Court has said that the creamy layer of OBCs should be excluded from the list of beneficiaries of reservation, there should not be reservation in promotions; and total reserved quota should not exceed 50%.
- The Parliament responded by enacting 77th Constitutional Amendment Act which introduced Article 16(4A).
- The article confers power on the state to reserve seats in favour of SC and ST in promotions in Public Services if the communities are not adequately represented in public employment.
- The Supreme Court in M. Nagaraj v. Union Of India 2006 case while upholding the constitutional validity of Art 16(4A) held that any such reservation policy in order to be constitutionally valid shall satisfy the following three constitutional requirements:
 - The SC and ST community should be socially and educationally backward.
 - The SC and ST communities are not adequately represented in Public employment.
 - Such reservation policy shall not affect the overall efficiency in the administration.
- In Jarnail Singh vs Lachhmi Narain Gupta case of 2018, Supreme Court holds that reservation in promotions does not require the state to collect quantifiable data on the backwardness of the Scheduled Castes and the Scheduled Tribes.
- The Court held that creamy layer exclusion extends to SC/STs and, hence the State cannot grant reservations in promotion to SC/ST individuals who belong to the creamy layer of their community.
- In May 2019 the Supreme Court upheld the Karnataka law that allows reservations in promotions for SCs and STs with consequential seniority.

Arguments against Reservation

- Reservation in state services led to divisions and enmity among government employees vitiating the atmosphere at workplace.
- Eradication, not perpetuation of caste was the objective of the reservation policy but Caste Based Reservation only perpetuates the notion of caste in society.
- Reservation was introduced to ensure that the historically underprivileged communities were given equal access to resources but irrespective of the economic progress they continue to remain socially disadvantaged.

- Reservation destroys self-respect, so much so that competition is no longer on to determine the best but the most backward.
- Reservations are the biggest enemy of meritocracy which is the foundation of many progressive countries.
- It has become a tool to meet narrow political ends through invoking class loyalties and primordial identities.
- The dominant and elite class within the backward castes has appropriated the benefits of reservation and the most marginalised within the backward castes have remained marginalised.
- Reservation has become the mechanism of exclusion rather than inclusion as many upper caste poors are also facing discrimination and injustice which breeds frustration in the society.

Reasons behind Increasing Demands of Reservation

- Reservation is increasingly seen as a remedy for the adverse effects of ill-thought out development policies.
- In developed states like Haryana, Gujarat and Maharashtra, in spite of their economies being relatively better, three things have been worrying the people:
 - Acute agrarian distress,
 - Stagnation in employment growth and
 - Distortions in the development trajectory.
- In this backdrop, for governments, it is easier to talk of reservation than to make a course correction.
- Increasing reservation demands among upper castes also arising from the fear of losing privilege and the inability to cope with change
- Upper castes have begun to feel disadvantaged especially in context of government jobs as they don't get similar advantages like backward classes.

Suggestion

- The reservation benefits should flow to the vast majority of underprivileged children from deprived castes; not to a few privileged children with a caste tag.

- High rank officials' families, high income professionals and others above a certain income should not get the reservation benefits especially in government jobs.
- Fair and practical ways to help needy person from each community through reservation is possible and necessary.
- The process of reservation should filter the truly economically deprived individuals and bring them all to justice
- Revolutionary changes in the education system at the grass-roots level is need of the hour.
- There is also need for awareness generation because while the unreserved segments, keep on opposing the provision, the neediest sections from within the reserved segments are hardly aware about how to get benefited from the provision or even whether there are such provisions exists.
- The radical solutions like excluding the entire creamy layer among all castes from reservation and developing their capabilities instead of offering them reservation for admission to higher education or jobs on a platter.

Way Forward

- Reservation is fair, as far as it provides appropriate positive discrimination for the benefit of the downtrodden and economically backward Sections of the society.
- But when it tends to harm the society and ensures privileges to some at the cost of others for narrow political ends, it should be done away with, as soon as possible.
- The communities excluded from reservations harbour animosity and prejudice against the castes included in the reservation category.
- When more people aspire for backwardness rather than of forwardness, the country itself stagnates.
- Meritocracy should not be polluted by injecting relaxation of entry barriers, rather than it should be encouraged by offering financial aid to the underprivileged.
- A strong political will is indispensable to find an equilibrium between justice to the backwards, equity for the forwards and efficiency for the entire system.

SECTION: B
(PRELIMS)

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THE INDUSTRIAL RELATIONS CODE, 2019

◎ CONTEXT

- Recently, Ministry of Labour and Employment introduced the Industrial Relations Code, 2019 in Lok Sabha.

◎ ABOUT

Salient features of the bill are:

- The Industrial Relations Code, 2019 seeks to replace three labour laws: (i) the Industrial Disputes Act, 1947, (ii) the Trade Unions Act, 1926, and (iii) the Industrial Employment (Standing Orders) Act, 1946.
- **Trade unions:** Under the Code, seven or more members of a trade union can apply to register it. Trade unions that have a membership of at least 10% of the workers or 100 workers, whichever is less, will be registered. Further, a registered trade union must always have at least seven workers who are employed in the establishment or the connected industry, as its members. The central or state government may recognise a trade union or a federation of trade unions as Central or State Trade Unions respectively.
- **Negotiating unions:** The Code provides for a negotiation union in an industrial establishment for negotiating with the employer. If there is only one trade union in an industrial establishment, then the employer is required to recognise such trade union as the sole negotiating union of the workers. In case of multiple trade unions, the trade union with support of at least 75% of workers will be recognised as the negotiating union by the central or state government.
- **Unfair labour practices:** The Code prohibits employers, workers, and trade unions from committing any unfair labour practices listed in a Schedule to the Code. These include: (i) restricting workers from forming trade unions, (ii) establishing employer sponsored trade union of workers, and (iii) coercing workers to join trade unions.
- **Standing orders:** All industrial establishments with at least 100 workers must prepare standing orders on matters listed in a Schedule to the Code. The central government will prepare model standing orders on such matters, based on which industrial establishments are required to prepare their standing orders. These matters relate to: (i) classification of workers, (ii) manner of informing workers about hours of work, holidays, paydays, and wage rates, (iii) termination of employment, (iv) suspension for misconduct, and (v) grievance redressal mechanisms for workers
- **Notice of change:** Employers who propose changes in the conditions of service are required to give a notice to the workers. The conditions of service for which a notice is required to be given are listed in a Schedule to the Code and include wages, contribution, and leave.
- **Lay-off and retrenchment:** The Code defines lay-off as the inability of an employer, due to shortage of coal, power, or breakdown of machinery, from giving employment to a worker. It also provides for employers to terminate the services of a worker, i.e., retrenchment. Employers of industrial establishments such as mines, factories and plantations with at least 100 workers are required to take prior permission of the central or state government before lay-off, retrenchment or closure. The central or state government can modify this threshold number of workers by notification. Any person who contravenes this provision is punishable with a fine between one lakh rupees and Rs 10 lakh.

Industrial establishments, in which 50 to 100 workers are employed, are required to: (i) pay 50% of basic wages and dearness allowance to a worker who has been laid off, and (ii) give one month's notice and wages for such period to a worker who has been retrenched. Any person who contravenes this provision is punishable with a fine between Rs 50,000 and two lakh rupees. Further, if an employer proposes to re-employ retrenched workers, such workers will have preference over other persons.
- **Voluntary arbitration:** The Code allows for industrial disputes to be voluntarily referred to arbitration by the employer and workers. The parties to the dispute must sign a written agreement referring the dispute to an arbitrator. After investigating the dispute, the arbitrator will submit the arbitration award to the government.

- **Resolution of industrial disputes:** The central or state governments may appoint conciliation officers to mediate and promote settlement of industrial disputes. These officers will investigate the dispute and hold conciliation proceedings to arrive at a fair and amicable settlement of the dispute. If no settlement is arrived at, then any party to the dispute can make an application to the Industrial Tribunal.
- **Industrial Tribunals:** The Code provides for the constitution of Industrial Tribunals for the settlement of industrial disputes. An Industrial Tribunal will consist of two members: (i) a Judicial Member, who is a High Court Judge or has served as a District Judge or an Additional District Judge for a minimum of three years; and (ii) an Administrative Member, who has over 20 years of experience in the fields of economics, business, law, and labour relations.
- The central government may also constitute National Industrial Tribunals for settlement of industrial disputes which: (i) involve questions of national importance, or (ii) could impact industrial establishments situated in more than one state. Members of the National Industrial Tribunal will include: (i) a Judicial Member, who has been a High Court Judge, and (ii) an Administrative Member, who has been a Secretary in the central government.

Significance:

- The Indian economy grew at 5% in the June quarter, a six-year low, while the country's factory output shrank for the second straight month at 4.3% in September, recording its worst show since the present series was launched in April 2012. The ease of compliance of labour laws will promote the setting up of more enterprises, thus catalysing the creation of employment opportunities in the country.

CLIMATE EMERGENCY COP 25: CLIMATIC TIPPING POINT IS CLOSER THAN WE THINK

◎ CONTEXT

- As announced by the UNFCCC Secretariat on 1 November 2019, the COP Bureau agreed that COP 25 will take place from 2-13 December, in Madrid, Spain.

◎ ABOUT

- The 2019 United Nations Climate Change Conference, also known as COP25, is the 25th United Nations Climate Change conference.
- It was held in Madrid, Spain, under the presidency of the Chilean government.
- The conference incorporates the 25th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), the 15th meeting of the parties for the Kyoto Protocol (CMP15), and the second meeting of the parties for the Paris Agreement.

Why climate emergency?

- In the climate lexicon, tipping points are thresholds beyond which certain impacts can no longer be avoided even if temperatures are brought down later. Examples include the loss of the Amazon rainforest or of the West Antarctic ice sheet.
- Recent IPCC reports, including last year's Global Warming of 1.5°C and this year's Special Report on the Ocean and Cryosphere in a Changing Climate, suggest that tipping points could be exceeded even between 1 and 2°C of warming.
- This is worrying as we are on track to a 3.2 degree warmer world, suggests the UNEP's Emissions Gap Report.
- The report addresses biosphere tipping points such as Amazonian deforestation, which can trigger abrupt carbon releases into the atmosphere, amplify climate change and reduce remaining emission budgets.

It calls on governments to:

- Increase implementation across all thematic areas to realize multiple benefits;
- Create the conditions needed for non-Party action;
- Continue and strengthen the Global Climate Action agenda within the UNFCCC process post- 2020;
- Align finance flows with finance needs, and;
- Strengthen the completeness and robustness of the reporting of results from climate action.

Several issues been discussed in the meeting

- The Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM);
- International climate finance;
- Capacity building;
- Matters relating to least developed countries (LDCs);
- The forum on the impact of the implementation of response measures;
- Gender and climate change;
- Common time frames for Nationally Determined Contributions (NDCs) to the Paris Agreement
- The Koronivia joint work on agriculture;
- National adaptation plans (NAPs)
- The Local Communities and Indigenous Peoples Platform (LCIPP)

THE WORLD SOIL DAY (WSD)

◎ CONTEXT

- The World Soil Day (WSD) was observed across the world on December 5, 2019.

◎ ABOUT

- The day is observed annually to highlight the importance of healthy soil and advocate for the sustainable management of soil resources. The theme for WSD 2019 was 'Stop Soil Erosion, Save Our Future'.

Historical background:

- In 2002 the International Union of Soil Science (IUSS) voted for a resolution to dedicate 5th December every year as World Soil Day to promote the importance of Nature and human wellbeing.
- Food and Agriculture organization (FAO) supported this initiative together with the Kingdom of Thailand leadership as a part of "Global soil partnership".
- FAO took the initiative to establish Soil Day. Consequently, unanimously approved it in its FAO conference 2013.
- Later in 2013, December with FAO's request, UN adopted World Soil Day in its 68th UN General Assembly. Further, announced that the day would be observed on 5th December every year.
- Especially, this is a tribute to late King Bhumibol Adulyadej of Thailand for his contribution in improving quality and sustainable management of soil.
- Thereby, FAO has been celebrating world soil day since 2012.

Highlights about the World Soil Day:

- Annually, to celebrate the day, World Soil Day award is distributed to honour the contributions made by people. That is, FAO gives two awards in line with this day-

- **The King Bhumibol World Soil Day Award-** an annual award that honours individuals, communities, organizations and countries that organized remarkable and engaging World Soil Day activities or campaigns in the previous year.
- **The Glinka World Soil Prize-** An annual award for dynamic change-makers dedicated to solving one of our world's most pressing environmental issue: soil degradation. It honours individuals and organizations whose leadership and activities have contributed, or are still contributing to the promotion of sustainable soil management and the protection of soil resources.

MAHILA KISAN SASHAKTIKARAN PARIYOJANA

◎ CONTEXT

- Department of Rural Development, Ministry of Rural Development is implementing **Mahila Kisan Sashaktikaran Pariyojana (MKSP)** to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also to create and sustain their agriculture-based livelihoods.

◎ ABOUT

- Rural women form the most productive work force in the economy of majority of the developing nations including India. More than 80% of rural women are engaged in agriculture activities for their livelihoods.
- About 20 per cent of farm livelihoods are female headed due to widowhood, desertion, or male emigration. Agriculture support system in India strengthens the exclusion of women from their entitlements as agriculture workers and cultivators.
- The "Mahila Kisan Sashaktikaran Pariyojana" (MKSP), a sub component of the Deendayal Antodaya Yojana-NRLM (DAY-NRLM) seeks to improve the present status of women in Agriculture, and to enhance the opportunities available to empower her.
- MKSP recognizes the identity of "Mahila" as "Kisan" and strives to build the capacity of women in the domain of agro-ecologically sustainable practices. It has a clear vision to reach out to the poorest of poor households and expand the portfolio of activities currently handled by the Mahila Kisan.
- The focus of MKSP is on capacitating smallholders to adopt sustainable climate resilient agro-ecology and eventually create a pool of skilled community professionals.

Objective of the mission

- Its objective is to strengthen smallholder agriculture through promotion of sustainable agriculture practices such as Community Managed Sustainable Agriculture (CMSA), Non Pesticide Management (NPM), Zero Budget Natural Farming (ZBNF), Pashu-Sakhi model for doorstep animal care services, Sustainable regeneration and harvesting of Non-Timber Forest Produce.

Major interventions promoted under DAY-NRLM which contribute to climate change resilience & risk mitigation among the poor are

- Community managed sustainable agriculture (agro-ecology approaches)
- Usage of locally available natural inputs – for pest management and soil fertility management
- System of root intensification – SRI, SCI
- Promotion of millets and cereal crops
- Promotion of multiple crops
- Tree based farming practices
- Regeneration of forest species
- Usage of locally available natural inputs
- Integrated farming practice with small ruminants

- Convergence with MGNREGA to create agriculture assets for the community
- Non Pesticide Management
- Natural soil fertility Management
- Integrating livestock with agriculture
- Integration of livestock – promotion of Pashu sakhi model
- Ensuring the scalability of climate change resilient agriculture practices through Community Best Practitioners (CBPs)
- In-situ rain water harvesting

Implementation strategy

- The program is being implemented by DAY-NRLM in partnership with State Rural Livelihood Missions/ Community Based Organizations (CBOs)/NGOs, as implementing partners (PIAs) across the country.
- Ministry of Rural Development (MoRD) would provide funding support of up to 75% (90% for North East and hill states) to the project submitted by the State Governments/ PIAs under MKSP.
- Balance is to be contributed by the respective state governments or any other donor agencies, national and international.
- These agencies are expected to support and nurture scalable livelihood models in the MKSP intervention areas.
- In the process, it is expected that a cadre of barefoot community professionals will be created from among the best practioners. The State Rural Livelihood Missions will further replicate the models with the help of the community.

Objectives of MKSP

- To enhance the productive participation of women in agriculture;
- To create sustainable agricultural livelihood opportunities for women in agriculture;
- To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities;
- To ensure food and nutrition security at the household and the community level;
- To enable women to have better access to inputs and services of the government and other agencies;
- To enhance the managerial capacities of women in agriculture for better management of bio-diversity;
- To improve the capacities of women in agriculture to access the resources of other institutions and schemes within a convergence framework.

INNER LINE PERMIT (ILP)

◎ CONTEXT

- **In the run-up to the likely introduction of the Citizenship Amendment Bill during the current session of Parliament, the concept of Inner Line Permit has been part of the conversation.**

◎ ABOUT

- The Inner Line Permit concept comes from the colonial area. Under the Bengal Eastern Frontier Regulation Act, 1873, the British framed regulations restricting the entry and regulating the stay of outsiders in designated areas.
- Inner Line Permit (ILP) is an official travel document issued by the Government of India to allow inward travel of an Indian citizen into a protected area for a limited period.
- It is obligatory for Indian citizens from outside those states to obtain a permit for entering into the protected state.

- The document is an effort by the government to regulate movement to certain areas located near the international border of India.
- There are different kinds of ILP's, one for tourists and others for people who intend to stay for long-term periods, often for employment purposes.

Where is it applicable?

- The system is in force today in three North-eastern states:
 - Arunachal Pradesh
 - Nagaland
 - Mizoram
- No Indian citizen can visit any of these states unless he or she does not belong to that state, nor can he or she overstay beyond the period specified in the ILP.

Relation between ILP and Citizenship Amendment Bill

- The Citizenship Amendment Bill seeks to amend the existing Citizenship Act, 1955 to enable non-Muslim refugees — specifically Hindus, Jains, Sikhs, Buddhists, Parsis and Christians — from Pakistan, Bangladesh and Afghanistan to obtain Indian citizenship.
- If the bill is passed and implemented, with the ILP system also in place, it would mean the refugees who are granted citizenship under the new act will not be permitted to settle in Arunachal Pradesh, Nagaland and Mizoram.
- Arunachal Pradesh and Nagaland are not among those drastically affected by migration from Bangladesh.
- Mizoram shares a border with Bangladesh.
- The three states that have seen the highest migration, however, are Assam, Tripura and Meghalaya, none of which has an ILP system.

THE DADRA AND NAGAR HAVELI AND DAMAN AND DIU (MERGER OF UNION TERRITORIES) BILL, 2019

◎ CONTEXT

- Recently, a bill for the merger of Union Territories of Dadra and Nagar Haveli and Daman and Diu was introduced in the Parliament by Home Minister.

◎ ABOUT

- The Bill provides for the merger of the Union Territories (UTs) of Dadra and Nagar Haveli, and Daman and Diu into a single UT.
- Key features of the Bill include:
 - **Amendment of the Constitution:** The First Schedule to the Constitution specifies the territories that come under various states and UTs. The Bill amends the First Schedule to merge the territories of the two UTs: (a) Dadra and Nagar Haveli, and (b) Daman and Diu. The merged territory will form the UT of Dadra and Nagar Haveli and Daman and Diu. This will come into effect from the day notified by the central government.

Daman and Diu and Dadra and Nagar Haveli

These two UTs are located in the western region of India.

- Daman and Diu are two widely separated districts situated on the southern side of Gujarat. Daman is an enclave on Gujarat's southern coast and Diu encompasses an island off the southern coast of Gujarat's Kathiawar Peninsula. It is in close proximity of the UT of DNH.
 - Dadra and Nagar Haveli consists of two separate parts. Dadra is surrounded by the state of Gujarat and Nagar Haveli lies on the borders of Maharashtra and Gujarat.
 - Both were colonised by the Portuguese and were liberated in December 1961.
 - In 1987, when Goa got statehood, Daman and Diu were made a separate Union Territory from the previous Union Territory of Goa, Daman and Diu.
- Article 240(1) of the Constitution allows the President to make regulations for certain UTs, including the UTs of Dadra and Nagar Haveli, and Daman and Diu. The Bill amends the Article to replace these two UTs with the merged UT.
 - **Representation in Lok Sabha:** The First Schedule to the Representation of the People Act, 1950 provides one seat in Lok Sabha to each of the two UTs. The Bill seeks to amend the Schedule to allocate two Lok Sabha seats to the merged UT.
 - **Services under the UTs:** Every person employed in connection with the affairs of the existing UTs will provisionally serve the merged UT. The central government will determine whether every such person will finally be allotted for service in the merged UT.
 - The merged UT will take steps to integrate employees into services under its control. The central government may give orders and instructions to the merged UT in this regard.
 - The central government may establish Advisory Committees to assist in ensuring fair treatment of all persons affected by these provisions and consideration of any representations made by them. Representations against any service orders must be made within three months from the date of publication, or notice of the order, whichever is earlier.
 - These provisions will not apply to members of All India Services (such as Indian Administrative Services, Indian Police Services, and Indian Forest Services), and persons on delegation from any state.
 - **Jurisdiction of High Court:** The Bill provides that the jurisdiction of the High Court of Bombay will continue to extend to the merged UT.

**Reasons for Merging Two UTs**

- Both UTs have two separate constitutional and administrative bodies which lead to a lot of duplicacy, inefficiency and wasteful expenditure.

- The merger will help in achieving the government's goal to have Minimum Government, Maximum Governance.
- Both of them have small population and limited geographical area so the merger will not be challenging and the services of officers will be used efficiently.

THE MAINTENANCE AND WELFARE OF PARENTS AND SENIOR CITIZENS (AMENDMENT) BILL, 2019.

◎ CONTEXT

- The Union Cabinet has approved The Maintenance and Welfare of Parents and Senior Citizens (Amendment) Bill, 2019.

◎ ABOUT

It seeks to amend The Maintenance and Welfare of Parents and Senior Citizens Bill, 2007.

The proposed 'Maintenance and Welfare of Parents and Senior Citizens Amendment Bill' has the following major salient features:

- Definition of "children" and 'parents' has been expanded.
- Definition of 'maintenance' and 'welfare' has been expanded.
- Mode of submission of application for maintenance has been enlarged.
- Ceiling of Rs.10,000/- as maintenance amount has been removed.
- Preference to dispose of applications of senior citizens, above eighty years of age, early has been included.
- Registration of Senior Citizens Care Homes/Homecare Service Agencies etc. have been included.
- Minimum standards for senior citizen care homes has been included in the Bill.
- Appointment of Nodal Police Officers for Senior Citizens in every Police Station and District level Special Police Unit for Senior Citizens has been included.
- Maintenance of Helpline for senior citizens has been included.

BHARAT BIOTECH LAUNCHES NEW ROTAVIRUS VACCINE TO TACKLE DIARRHOEA

◎ CONTEXT

- In order to effectively tackle the menace of diarrhea plaguing developing economies including India, Hyderabad-based Bharat Biotech International has commercially launched Rotavac 5D, an oral rotavirus vaccine at virtually one-tenth the cost when compared to private hospitals.

◎ ABOUT

- Rotovac 5D has been developed with close coordination with the Department of Biotechnology.
- Earlier, Bharat Biotech had originated ROTAVAC and now they have upgraded their already available oral vaccine to ROTAVAC 5D.
- The roll-out of oral rotavirus vaccine is also the lowest dose-volume rotavirus vaccine in the world.
- Along with the reduction in dosage, they have also made the oral vaccine low cold chain proof. This has resulted in making the vaccine stable at 2-degree to 8-degree Celsius for up to 24 months.
- Globally, rotavirus causes approximately 200,000 deaths and about 2 million hospitalizations annually, mostly in low-income countries.

- Currently, ROTAVAC 5D is being supplied in seven countries including India and 50 more countries have registered for it.

What is rotavirus?

- Rotavirus is a virus that infects the bowels, causing a severe inflammation of the stomach and bowels (known as gastroenteritis). It is a very contagious virus that causes diarrhea.
- Rotavirus is the most common cause of severe diarrhea among infants and children throughout the world and causes the death of about 500,000 children worldwide annually.
- The name rotavirus comes from the characteristic wheel-like appearance of the virus when viewed by electron microscopy.

Symptoms of rotavirus

- Vomiting
- Black or tarry stools
- Stools with blood or pus in them
- Severe fatigue
- A high fever
- Irritability
- Dehydration
- Abdominal pain

Rotavirus transmission

- Rotavirus is transmitted between hand and mouth contact. If you touch a person or object carrying the virus and then touch your mouth, you could develop the infection.
- Infants and children under 3 are at the highest risk for rotavirus infection.

CARTOSAT 3

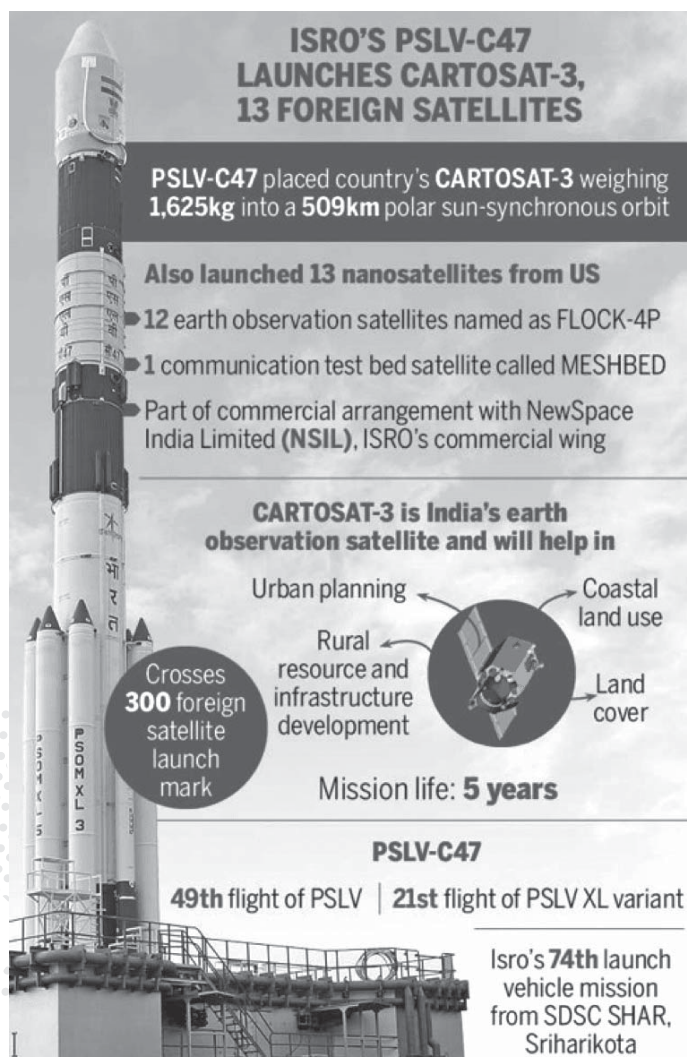
◎ CONTEXT

- Recently, Cartosat-3 was launched by ISRO.

◎ ABOUT

- Cartosat-3 is the third generation Earth observation satellite built by ISRO. It is one of the most advanced imaging satellites built by the organization so far. It has the capability to produce high resolution aerial images in the world.
- The features of the satellite include
 - **Panchromatic** - captures all visible colors of light
 - **Hyperspectral** - captures light from electromagnetic spectrum
 - **Multispectral** - captures light within specific ranges of the electromagnetic spectrum.
 - **Resolution:** It has the 'sharpest eye' of civil remote sensing satellites in the world.
 - One of Cartosat-3's cameras offers a ground resolution of 25 cm - it can pick up an object of a minimum of 25 cm size from a height of around 500 km.
 - Currently, a satellite owned by US private company- WorldView-3, has the best ground resolution of 31 cm.

- **Weight:** At 1,625 kg, Cartosat-3 is unusually heavy and more than double the mass of the previous eight in its class.
- **Inclination:** It has been placed at 97.5 degrees to the equator of the earth.
- It has many new technologies such as a highly agile or flexible camera; high-speed data transmission, advanced computer system, etc.
- **Launch Vehicle:** Polar Satellite Launch Vehicle, PSLV-C47 has launched Cartosat-3 into Sun Synchronous orbit from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota.



- PSLV-C47 is the 21st flight of PSLV in 'XL' configuration.
- PSLV-C47 will also carry 13 commercial nano-satellites from United States of America as part of commercial arrangement with NewSpace India Limited (NSIL), Department of Space.

Cartosat Series and Remote Sensing Programme

- The Cartosat series is a part of the Indian Remote Sensing Programme.
- Till date, eight Cartosats have been launched.
- They were specifically launched for Earth's resource management and monitoring.
- Cartosat-1 was launched by PSLV-C6, on May 5th 2005 from Sriharikota.
- Cartosat-3 was originally planned to be launched on board PSLV during 2014. However, ISRO appears to launching additional satellites in the Cartosat-2 series through 2017,

and ISRO's 2017 plans involve launching Cartosat 2D/2E in 2017. Cartosat-3 will now be launched on 27 November 2019.

- Cartosat-3 is an advanced version with better spatial and spectral characteristics as compared to the Cartosat-2 series satellites.
- The Earth-observation satellites also include the Resourcesat and RISAT series, the Oceansat series.
 - The Resourcesat and RISAT series of satellites, for example, provide images and data that are needed for land and water resources applications.
 - The Oceansat series and the SARAL satellite, meanwhile, produce data on the oceans.
 - The satellites like INSAT 3D, INSAT-VRR or Megha Tropiques study the atmosphere.

Applications

- Data from most of the Cartosat satellites are exclusively used by the armed forces.
- However, an existing policy allows only government and government authorised agencies to access ISRO's high-resolution imageries below a resolution of 1 metre.
- Cartosat-3's optical imaging will also help to detect precise cartographic or mapping activities.
- The imageries are also used for urban and rural infrastructure planning, coastal land use and regulation, utility management such as monitoring road networks, water grids or distribution, creation of land use maps, disaster management, etc.

HERA MISSION

◎ CONTEXT

- European ministers in charge of the ESA space agency have approved Hera, a mission that will test whether deflection could save humanity from a rogue asteroid.

◎ ABOUT

- Scientists are studying asteroids and trying to find ways to deflect them from a collision course with Earth.
- One such project is the Asteroid Impact and Deflection Assessment (AIDA), which includes NASA's Double Asteroid Redirection Test (DART) mission and the European Space Agency's (ESA) Hera.

Additional information

- ESA and partner NASA will send a pair of spacecraft to a double-asteroid system called Didymos.
- NASA will first crash its DART probe into the smaller asteroid (Didymoon). Hera will arrive later to map the impact crater and measure the asteroid's mass.
- The moon orbiting Didymos, called 'Didymoon' — almost the size of the Giza Pyramid in Egypt, measuring just 160 metres in diameter — will be the smallest asteroid ever explored.
- Hera will carry two CubeSats that can fly extremely close to the asteroid's surface before touching down.
- Those briefcase-sized spacecraft will act like drones, capturing vital data about the impact crater and giving scientists data including the mass of the asteroid that will help them deduce its composition.
- While an asteroid collision is a pretty unlikely event, it's actually preventable, unlike an earthquake or volcanic explosion.
- However, Hera mission won't be the first to reach Didymos. The National Aeronautics and Space Administration (NASA) in USA plan to launch the Double Asteroid Redirection Test (DART) between 2020 and 2021, which will target Didymoon as part of its planetary defence programme.

Why we need a planetary defence mechanism

- There are around 25,000 near-Earth objects (NEOs) that orbit the Sun on a trajectory that brings them close to our planet's orbit.
- NASA tracks such near-Earth objects to ensure they do not become threats.
- However, certain near-Earth objects have been classified as "potentially hazardous" which are 140 metres or more in size.

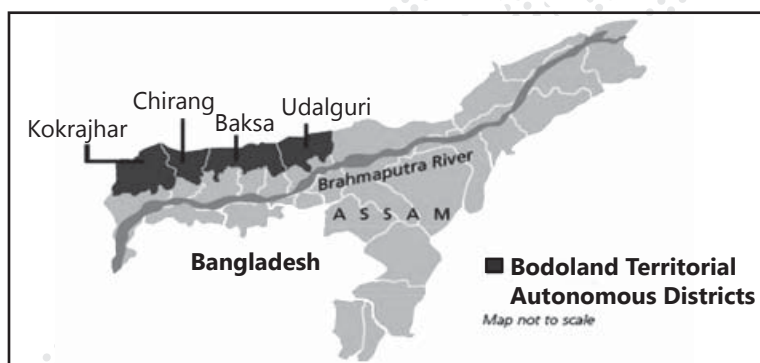
WHAT IS THE BODOLAND DISPUTE?

◎ CONTEXT

- Recently, the Home ministry has extended the ban on the Assam-based insurgent group National Democratic Front of Bodoland (NDFB) by five more years for its involvement in a series of violent activities including killings and extortion, and for joining hands with anti-India forces.

◎ ABOUT

- Bodos are the single largest tribal community in Assam, making up over 5-6 per cent of the state's population. They have controlled large parts of Assam in the past.



- The four districts in Assam — Kokrajhar, Baksa, Udalguri and Chirang — that constitute the Bodo Territorial Area District (BTAD), are home to several ethnic groups.
- The Bodos have had a long history of separatist demands, marked by armed struggle.
- In 1966-67, the demand for a separate state called Bodoland was raised under the banner of the Plains Tribals Council of Assam (PTCA), a political outfit.
- In 1987, the All Bodo Students Union (ABSU) renewed the demand. "Divide Assam fifty-fifty", was a call given by the ABSU's then leader, Upendra Nath Brahma.
- The unrest was a fallout of the Assam Movement (1979-85), whose culmination — the Assam Accord — addressed the demands of protection and safeguards for the "Assamese people", leading the Bodos to launch a movement to protect their own identity.
- In December 2014, separatists killed more than 30 people in Kokrajhar and Sonitpur. In the 2012 Bodo-Muslim riots, hundreds were killed and almost 5 lakh were displaced.
- The Home Ministry has declared the NDFB along with all its groups, factions, and front organisations as an "unlawful association" under the Unlawful Activities (Prevention) Act, 1967.

Who are the NDFB?

- Alongside political movements, armed groups have also sought to create a separate Bodo state.
- In October 1986, the prominent group Bodo Security Force (BdSF) was formed by Ranjan Daimary. The BdSF subsequently renamed itself as the National Democratic Front of Bodoland (NDFB), an organisation that is known to be involved in attacks, killings, and extortions.

- In the 1990s, Indian security forces launched extensive operations against the group, causing the latter to flee to bordering Bhutan. In Bhutan, the group faced stiff counter-insurgency operations by the Indian Army and the Royal Bhutan Army in the early 2000s.

NDFB factions and their activities

- In October 2008, bomb attacks in Assam carried out by the NDFB killed 90 people. In January this year, 10 operatives, including founder Ranjan Daimary, were convicted for their role in the attacks.
- After the blasts, the NDFB was divided into two factions — the NDFB (P), led by Gobinda Basumatary, and the NDFB (R), led by Ranjan Daimary.
- The NDFB (P) started talks with the central government in 2009. In 2010, Daimary was arrested and handed over to India by Bangladesh, and was granted bail in 2013. His faction too then began peace talks with the government.
- In 2012, Ingti Kathar Songbijit broke away from the NDFB (R) and formed his own faction, the NDFB (S). His faction is believed to be behind the killing of 66 Adivasis in Assam in December 2014. The NDFB (S) is against holding talks.
- In 2015, Songbijit was removed as the chief of the group and B Saoraigwra took over. This faction of the NDFB is still active, while Songbijit, himself a Karbi and not a Bodo, is said to have started his own militant group.

Why the demand for separate Bodoland?

- For centuries, they survived sanskritisation without giving up their original ethnic identity. However in the 20th century, they had to tackle a series of issues such as illegal immigration, encroachment of their lands, forced assimilation, loss of language and culture. The 20th century also witnessed the emergence of Bodos as a leading tribe in Assam which pioneered the movements for safeguarding the rights of the tribal communities in the area.
- From then on, they have been consistently deprived of the political and socio-economic rights by successive state and central governments. The Bodos have not only become an ethnic minority in their own ancestral land but have also been struggling for their existence and status as an ethnic community.

BHARATIYA POSHAN KRISHI KOSH

◎ CONTEXT

- Recently, Government launched 'Bharatiya Poshan Krishi Kosh' to tackle the problem of malnutrition in India.

◎ ABOUT

- The Union Government has launched 'Bharatiya Poshan Krishi Kosh' (BPKK) with the aim of reducing malnutrition in India.
- BPKK is a repository of diverse crops across 128 agro-climatic zones to help enable better nutritional outcomes.
- As part of Poshan Abhiyaan, Union Ministry of Women and Child Development has partnered with Bill and Melinda Gates Foundation for the Bharatiya Poshan Krishi Kosh project.
- India's first Poshan Atlas: BPKK would be accessible to policy-makers, administrators, experts and communities in order to help meet nutritional outcomes in the country.

Objective

- The Kosh aims to promote and reinforce healthy dietary practices both at the individual and community level and tackle malnutrition in a sustainable manner.
- BPKK database will provide insights on traditional crop varieties & encourage them in a particular region to promote dietary diversity.
- This is a step forward in the direction of 'Evergreen Revolution' that will bring together the nutritional needs of citizens with India's cropping patterns and agricultural production.

Plan of action

- The Kosh aims to reduce malnutrition among women and children across the country, through a multi-sectoral results-based framework, including agriculture.
 - There is need for convergence between agriculture and nutrition to tackle the challenge of malnutrition.
- A five-point action programme: WCD Ministry is to set up a band of community hunger fighters, who will be trained to deal with hunger among women, especially pregnant women and children by following the five-point action programme.
 - Ensure calorie rich diet for women, especially pregnant women and children.
 - Ensure protein intake in form of pulses to eradicate protein hunger among women and children.
 - Eradicate hidden hunger due to micro-nutrient deficiency such as vitamin A, vitamin B, Iron and Zinc.
 - Ensure supply of clean drinking water.
 - Spreading nutrition literacy in every village, especially among women with children less than 100 days' old.
- Implementation of the five action plan: Ministry of Jal Shakti is already working on providing clean drinking water to every household in the country.
- India's National Nutrition Mission has already brought a new energy needed to eliminate the Malnutrition menace.

Why BPKK?

- Lack of proper nutrition among children not only affects their physical development but also their brain development.
 - Malnutrition is cause of death of children below the age of five years.
- Loss of traditional knowledge: In this age of globalization, modern food systems have resulted in loss of knowledge and consumption of traditional and local nutrient rich foods. Consumption of industrialised and processed food products has increased.
 - Globalisation has result in replacement of nutrient-dense millets, suited for cultivation under the water-strapped conditions of India, by other grains.
 - Super grains: Increased awareness about suitability of millets from both a nutrient standpoint and agricultural logistics is now catalysing the slow restoration of these super grains.
- There is need to bring together the science of implementation along with the science of communication, to ensure that nutrition is key priority along with hygiene and clean drinking water.
- Solving the malnutrition challenge will bring about a dramatic change in India's development and help it attain all the SDGs.

Other steps undertaken

- Government is conducting 'POSHAN Maah' (Nutrition months) to undertake nutrition related activities across the country.
- The Pradhan Mantri Matru Vandana Yojana Scheme (PMMVY) has reached out to 10 million beneficiaries by compensating for wage losses during maternity leaves takes.
- Anganwadi workers, Anganwadi helpers and state agencies have helped to keep nutritional goals alive, and digitally linked beneficiaries with the government through daily updates on dashboard.
