

Abhimanu

Weekly current affairs Series

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Abhimanu's IAS Study Group
Chandigarh

NATIONAL ECONOMIC AFFAIRS

Government puts gold dore imports under restricted category

- The Directorate General of Foreign Trade (DGFT) has put the imports of gold dore in restricted category. It means that an importer now, needs a license to import this commodity.
- DGFT also prescribed wastage norms and value addition in respect of gold religious idols (only gods and goddess) -both plain and studded, of eight carats and above (up to 24 carats).
- The percentage of wastage for plain gold idols will be 2.5 per cent and for studded gold idols it will be 5%. Similarly, percentage of value addition for plain gold religious idols will be 10 per cent; and 14 per cent in case of idols studded with colour gems stones, it added.
- Also, the percentage for value addition in case of idols studded with diamonds will be 15 per cent.

About Gold Dore:

- Gold dore is a semi-pure alloy which is refined for further purification. Refined gold bars are manufactured from gold dore bar.

About DGFT:

- Directorate General of Foreign Trade (DGFT) organisation is an attached office of the Ministry of Commerce and Industry and is headed by Director General of Foreign Trade.
- Right from its inception till 1991, when liberalization in the economic policies of the Government took place, this organization has been essentially involved in the regulation and promotion of foreign trade through regulation.
- Keeping in line with liberalization and globalization and the overall objective of increasing of exports, DGFT has since been assigned the role of "facilitator".
- The shift was from prohibition and control of imports/exports to promotion and facilitation of exports/imports, keeping in view the interests of the country.

Kandhamal Haldi

- Odisha's Kandhamal Haldi (turmeric), famous for its healing properties, is all set to receive GI tag.
- About Kandhamal Haldi:
- Kandhamal turmeric has been famous for being organically cultivated without use of chemical fertilisers and pesticides.
- There are over 1,200 turmeric farmers in Kandhamal district
- Kandhamal Haladi is popular among the state for its herbal and medicinal values. Kandhamal Haldi is a member of the Curcuma botanical group, which is a part of the ginger family whose botanical name is Curcuma Longa. It is known for its medicinal values.
- The crop is cultivated in Kandhamal, a district in Odisha which is centrally located and whose geographical area is hilly and covered with forest.
- Kandhamal turmeric is organically produced and is sustainable in adverse climate condition
- More than 60,000 families (nearly 50% of Kandhamal population) are engaged in growing the variety. The crop is sustainable in adverse climatic conditions.

About Geographical indicators:

- GI (Geographical Indications) are signs used on goods that have a specific geographical origin and possess qualities or a reputation that are due to that place of origin.
- Agricultural products typically have qualities that derive from their place of production and are influenced by specific local factors, such as climate and soil. They may also highlight specific qualities of a product, which are due to human factors that can be found in the place of origin of the products, such as specific manufacturing skills and traditions.
- A geographical indication points to a specific place or region of production that determines the characteristic qualities of the product that originates therein. It is important that the product derives its qualities and reputation from that place.
- Place of origin may be a village or town, a region or a country. It is an exclusive right given to a particular community hence the benefits of its registration are shared by the all members of the community.
- Keeping in view the large diversity of traditional products spread all over the country, the registration under GI will be very important in future growth of the tribes / communities / skilled artisans associated in developing such products.

NATIONAL POLITY

Roshni Act

- The State Administrative Council (SAC) of Jammu and Kashmir repealed the Jammu and Kashmir State Lands (Vesting of Ownership to the Occupants) Act, 2001, popularly known as the Roshni Act, because it had “failed to realise the desired objectives and there were also reports of misuse of some its provisions”.

About Act:

- The Roshni Act envisaged the transfer of ownership rights of state land to its occupants, subject to the payment of a cost, as determined by the government.
- It was enacted by Chief Minister Farooq Abdullah’s government, and it set 1990 as the cutoff for encroachment on state land.
- The government’s target was to earn Rs 25,000 crore by transferring 20 lakh kanals of state land to existing occupants against payment at market rates.
- The government said the revenue generated would be spent on commissioning hydroelectric power projects, hence the name “Roshni”.

Analysis:

- Investigations into the land transfers subsequently found that land in Gulmarg had been given over to ineligible beneficiaries.
- In 2009, the State Vigilance Organisation registered a FIR against several government officials for alleged criminal conspiracy to illegally possess and vest ownership of state land to occupants who did not satisfy criteria under the Roshni Act.
- In 2014, a report by the Comptroller and Auditor General (CAG) estimated that against the targeted Rs 25,000 crore, only Rs 76 crore had been realised from the transfer of encroached land between 2007 and 2013, thus defeating the purpose of the legislation. The report blamed irregularities including arbitrary reduction in prices fixed by a standing committee and said this was done to benefit politicians and affluent people.

- The Gujjar and Bakerwal groups in Jammu have been upset with the repeal of the Act. They have said that while the rich and influential managed to grab the benefits, their applications had remained pending.
- The SAC has ordered cancellation of all pending applications seeking vesting of ownership rights of state lands to their occupants. However, cases where such rights have already been transferred will hold.

Guidelines for crèches at workplaces

- The Centre has prepared guidelines for setting up of crèches at workplaces, which prescribe trained personnel to man the facility as well as infrastructure requirements and safety norms.
- Few months back, Parliament passed the Maternity Benefit Amendment Act, 2017, enhancing paid maternity leave from a period of 12 weeks to 26 weeks. The law is applicable to all institutions with 10 or more employees. It also makes it mandatory for every organisation with 50 or more employees to have a crèche.

Important points of new guidelines:

- Crèche be either at the workplace or within 500 metres of it. Alternatively, it could also be in the beneficiaries' neighbourhood.
- The facility should be open for eight to 10 hours and if the employees have a shift system, then the crèche should also be run accordingly.
- A crèche must have a minimum space of 10 to 12 square feet per child to ensure that she or he can play, rest and learn. There should be no unsafe places such as open drains, pits, garbage bins near the centre.
- The crèches should have at least one guard, who should have undergone police verification. There should also be at least one supervisor per crèche and a trained worker for every 10 children under three years of age or for every 20 children above the age of three, along with a helper.
- The government has also recommended that no outsiders such as plumbers, drivers, electricians be allowed inside the crèche when children are present.
- A crèche monitoring committee with representations from among crèche workers, parents and administration should be formed. There should also be a grievance redressal committee for inquiring into instances of sexual abuse. The guidelines are not mandatory but are a yardstick for NGOs and organisations for setting up of creches.

About Maternity Benefit Act:

- The Maternity Benefit Act, 1961, applies to establishments employing 10 or more than 10 persons in factories, mines, plantation, shops & establishments and other entities.
- The main purpose of this Act is to regulate the employment of women in certain establishments for certain period before and after child birth and to provide maternity benefit and certain other benefits. The Act was amended through the Maternity Benefit (Amendment) Act, 2017.

The amendment has brought in major changes to the law relating to maternity benefits. These are:

- It extends the period of maternity benefit from 12 weeks to 26 weeks of which not more than eight weeks can precede the date of the expected delivery. This exceeds the International Labour Organisation's minimum standard of 14 weeks and is a positive development. However, a woman who has two or more surviving children will be entitled to 12 weeks of which not more than six weeks can precede the date of the expected delivery.
- Women who legally adopt a child below the age of three months or a "commissioning mother" will be entitled to maternity benefit for 12 weeks from the date on which the child is handed over to her. A commissioning mother is defined as a biological mother who uses her egg to create an embryo implanted in another woman.
- It gives discretion to employers to allow women to work from home after the period of maternity benefit on mutually agreeable conditions.
- It introduces a provision which requires every establishment to intimate a woman at the time of her appointment of the maternity benefits available to her.

India to Chair Kimberley Process from 1st January 2019

- The Kimberley Process Certification Scheme (KPCS) Plenary 2018, was held in Brussels, Belgium, in November 2018. European Union handed over the Chairmanship of KPCS to India from 1st January 2019.

What is the Kimberley Process?

- The Kimberley Process is an international certification scheme that regulates trade in rough diamonds. It aims to prevent the flow of conflict diamonds, while helping to protect legitimate trade in rough diamonds.
- The Kimberley Process Certification Scheme (KPCS) outlines the rules that govern the trade in rough diamonds.
- The KP is not, strictly speaking, an international organisation: it has no permanent offices or permanent staff. It relies on the contributions – under the principle of ‘burden-sharing’ – of participants, supported by industry and civil society observers. Neither can the KP be considered as an international agreement from a legal perspective, as it is implemented through the national legislations of its participants.

Analysis:

- India is the founding member of KPCS and is actively involved in KP activities to ensure that almost 99% of the diamond trade in the world is conflict free. India is committed to maintain KP as an efficient and effective process in order to ensure the conflict diamond free status. India is at the forefront in addressing the issue of differentiation between Natural Diamonds and Lab Grown Diamonds and ensure responsible business in this area
- India is sensitive to the issues and challenges of Artisanal & Small-Scale Mining (ASM) and acknowledged the contribution made by the KP members, observers and agencies for the upliftment of ASMs. India, during its Chairmanship will continue with the tradition and aim to support the ASMs with capacity building, technical assistance and education on valuation, differentiation between natural and lab grown diamonds, importance of legal and formal mining practices.
- Since its launch in 2003, the Kimberley Process has contributed towards peace, security and prosperity. It has proven to be an effective multilateral tool for conflict prevention in stemming the flow of conflict diamonds. The Kimberley Process has made valuable developmental impact in improving the lives of most people dependent on the trade in diamonds.

Restricted Area Permit (RAP) system

- The Centre is planning to revisit its decision to lift the Restricted Area Permit (RAP) system from 29 islands of Andaman and Nicobar.
- To develop tourism, the RAP regime, in place since 1963, was lifted around August this year from 29 islands, including the North Sentinel. The lifting of the regime proved problematic and the decision had “many pros and cons that needed to be re-looked”. Recently, U.S. citizen John Allen Chau was killed in the North Sentinel Island.

What is Restricted Area Permit (RAP) regime?

- A foreign national is not normally allowed to visit a Protected / Restricted Area unless it is established to the satisfaction of the Government that there are extra-ordinary reasons to justify such a visit. Every foreigner, except a citizen of Bhutan, who desires to enter and stay in a Protected or Restricted Area, is required to obtain a special permit from a competent authority delegated with powers to issue such a special permit to a foreigner, on application.
- In cases where the powers have not been delegated to any subordinate authority by the Government of India, the application for special permit should be referred to the Ministry of Home Affairs for prior approval, at least eight weeks before the date of the expected visit.
- With a view to promote tourism, some areas (notified by the Government of India from time to time) can be visited by foreign tourists, either in groups, or as a couple in the case of a husband and wife, or by individuals, after obtaining the necessary permit from the competent authority.
- Necessary powers have been delegated to various authorities to issue the special permit, without the prior approval of the Ministry of Home Affairs, to facilitate foreign tourists subject to the following exception: a)

Special instructions applicable to foreign diplomats and members of the United Nations and International Organisations holding Diplomatic / Official Passport are issued by the Ministry of External Affairs; b) Citizens of Afghanistan, China and Pakistan and foreign nationals of Pakistani origin, shall not be issued a special permit without the prior approval of the Ministry of Home Affairs.

India Water Impact Summit 2018

- India Water Impact Summit 2018 was jointly organized by the National Mission for Clean Ganga (NMCG) and the Centre for Ganga River Basin Management and Studies recently in New Delhi.
- The India Water Impact Summit is an annual event where stakeholders get together to discuss, debate and develop model solutions for some of the biggest water related problems in the country.
- The discussions this year will be on rejuvenation of the Ganga River Basin. There will be multi-country dialogue on the subject, with showcasing of technological innovations, research, policy frameworks and funding models from India and abroad.
- A number of Indian Central Government Ministries as well as all key decision makers responsible for delivering the rejuvenation of the Ganga will also be present at the Summit.
- The efforts may take various forms including (but not limited to): data collection (sensors, LIDAR, modelling etc), hydrology, e-flows, agriculture, waste water and more.

Focus of this summit:

- **Spotlight on 5 states:** Uttarakhand, Uttar Pradesh, West Bengal, Delhi and Bihar. The objective is to showcase the efforts and works going on within the respective states.
- **Ganga Financing Forum:** The 2018 Summit also introduces the inaugural Ganga Financing Forum that will bring a number of institutions to a common knowledge, information and partnership platform. The Hybrid Annuity Model has redefined the economic landscape of water and waste-water treatment in India. All tenders have been successfully bid out and financial closures being achieved. Additionally, the Government is also now encouraging development of smaller decentralised waste water treatment projects. The Financing Forum will bring together financial institutions and investors interested in Namami Gange programmes.
- **Technology and Innovation:** Implementation of the pilot/demonstration programme known as the Environment Technology Verification (ETV) process. This will provide an opportunity to technology and innovation companies from around the world to showcase their solutions for addressing the problems prevalent in the river basin.

INTERNATIONAL AFFAIRS

80th Session of World Customs Organization

- 80th Session of the Policy Commission of the World Customs Organization (WCO) was held recently in Mumbai. The Session was organized by the WCO and hosted by the Central Board of Indirect Taxes and Customs (CBIC).

About World Custom Organisation:

- The World Customs Organization (WCO), established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of Customs administrations.
- WCO represents 182 Customs administrations across the globe that collectively process approximately 98% of world trade.
- As the global centre of Customs expertise, the WCO is the only international organization with competence in Customs matters and can rightly call itself the voice of the international Customs community.
- The WCO's governing body – the Council – relies on the competence and skills of a Secretariat and a range of technical and advisory committees to accomplish its mission. The Secretariat comprises over 100 international officials, technical experts and support staff of some nationalities.

Roles and functions:

- As a forum for dialogue and exchange of experiences between national Customs delegates, the WCO offers its Members a range of Conventions and other international instruments, as well as technical assistance and training services.
- Besides the vital role played by the WCO in stimulating the growth of legitimate international trade, its efforts to combat fraudulent activities are also recognized internationally.
- WCO has also been responsible for administering the World Trade Organization's Agreements on Customs Valuation, which provide a system for placing values on imported goods, and the Rules of Origin, which are used to determine the origin of a given commodity.

Qatar to withdraw from OPEC

- Qatar has decided to quit the bloc of 15 oil-producing countries from 1 January 2019 that account for a significant percentage of the world's oil production.
- The withdrawal decision reflects Qatar's desire to focus its efforts on plans to develop and increase its natural gas production from 77 million tonnes per year to 110 million tonnes in the coming years.
- Qatar is the first Gulf country to leave the bloc of oil-producing countries.

About OPEC:

- The Organization of the Petroleum Exporting Countries (OPEC) is a group of oil-producing nations that was first established in Baghdad, Iraq, in 1961. OPEC is one of the most powerful international organizations in the world and was a major player in the shift towards state control over natural resources.
- Currently, the Organization has a total of 15 Member Countries. The current OPEC members are the following: Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, the Republic of the Congo, Saudi Arabia, United Arab Emirates, and Venezuela. From 1 January 2019, Qatar will no longer be a member of OPEC.

Analysis:

- Qatar is the world's biggest supplier of liquefied natural gas (LNG), producing almost 30 percent of the world total. Qatar is a small player in OPEC, and it is a wise decision to invest on its strength rather than constitute to be having a little impact in OPEC.
- The decision to pull out after more than five decades comes at a turbulent time in Gulf politics, with Doha under a boycott by former neighbouring allies including Saudi Arabia for 18 months.
- Since June 2017, OPEC kingpin Saudi Arabia — along with three other Arab states — has cut trade and transport ties with Qatar, accusing the country of supporting terrorism and its regional rival Iran. Qatar denies the claims, saying the boycott hampers its national sovereignty.
- Qatar's oil production is around 600,000 barrels per day, making it the world's 17th largest producer of crude. It also only holds around two percent of the world's global oil reserves.
- Since 2013, the amount of oil Qatar produced has steadily declined from about 728,000 barrels per day in 2013 to about 607,000 barrels per day in 2017, or just under two percent of OPEC's total output.
- Qatar joined OPEC in 1961, one year after the organisation's establishment.

World Intellectual Property Organisation (WIPO) Report 2018

- World Intellectual Property Indicators 2018 report was recently released in Geneva by the World Intellectual Property Organization (WIPO).

Highlights of the report-

- The number of patents granted by India shot up by 50 per cent in 2017, keeping up a trend of steep increases. The patents granted by India increased from 8,248 in 2016 to 12,387 last year.
- The steep increase in the number was driven by patents granted to foreigners, which accounted for 85 per cent of the total increase.
- The number of patents given to domestic entities has also shown an increasing trend: In 2016, 1,115 went to domestic individuals or entities and 7,133 to foreigners, and in 2015, 822 were granted to applicants in India and 5,200 to foreigners.
- Demand for IP (intellectual property) protection is rising faster than the rate of global economic growth, illustrating that IP-backed innovation is an increasingly critical component of competition and commercial activity.
- Globally, 1.4 million patents were granted in 2017, the report estimated. China's patent authority led the world in the number of patents granted with 420,144 and was followed by the US with 318,829. In just a few decades, China has constructed an IP system, encouraged homegrown innovation, joined the ranks of the world's IP leaders -- and is now driving worldwide growth in IP filings
- China received 1.38 million patent applications - which are an indication of patents in the pipeline - more than double that of the US, which had 606,956 applications.
- Pharmaceuticals accounted for 15.7 per cent of the Indian domestic applications for patents last year.
- While India ranked 10th in the number of patents given last year, no Indian company or university figures in last year's global list of the top 50 patent applicants.
- Japan's Canon ranked at the top with 24,036 patent applications during the years 2013-2015; South Korea's Samsung followed with 21,836 and China's State Grid Corporation with 21,653.

About WIPO:

- The World Intellectual Property Organization (WIPO) is one of the 17 specialized agencies of the United Nations.
- It was created in 1967 "to encourage creative activity, to promote the protection of intellectual property throughout the world."
- It has currently 188 member states, administers 26 international treaties, and is headquartered in Geneva, Switzerland.
- Non-members are the states of Marshall Islands, Federated States of Micronesia, Nauru, Palau, Solomon Islands, South Sudan and Timor-Leste. Palestine has observer status.
- India is a member of WIPO and party to several treaties administered by WIPO.

Soyuz

- A Soyuz rocket carrying Russian, American and Canadian astronauts took off from Kazakhstan and has reached orbit, in the first manned mission since a failed launch in October.

What Is the Soyuz?

- The Soyuz (saw-yooz) is a Russian spacecraft. The Soyuz carries people and supplies to and from the space station. The Soyuz can also bring people back to Earth.
- Russia helps the United States run the International Space Station. Other countries also help with the space station. But only Russian spacecraft carry people to it right now.
- The Soyuz has two parts. One part is the Soyuz capsule. The second part is the Soyuz rocket.

Soyuz Capsule

- The Soyuz capsule sits on top of the Soyuz rocket. The capsule has three parts. The parts are also called modules.
- The first part of the capsule is the Orbital Module. The crew members live in the Orbital Module while they are in orbit. This module is about the size of a large van. The Orbital Module can connect to the space station.
- The second part of the capsule is the Descent Module. “To descend” means to go down. The crew sits in this part when the Soyuz is launching to the space station. They also use the Descent Module for landing on Earth.
- The third module is home to the life support systems. It holds things like batteries, solar panels and steering engines.

Soyuz Rocket

- The Soyuz capsule launches on top of a Soyuz rocket. A rocket is what launches people and objects into space. After the launch, the capsule and the rocket separate. The rocket part of the Soyuz returns to Earth. The Soyuz capsule keeps going, and takes only nine minutes to reach space!

What Is the International Space Station?

- It orbits Earth at an average altitude of approximately 250 miles. It travels at 17,500 mph. This means it orbits Earth every 90 minutes. NASA is using the space station to learn more about living and working in space. These lessons will make it possible to send humans farther into space than ever before.
- The ISS programme is a joint project among five participating space agencies: NASA, Roscosmos, JAXA, ESA, and CSA.
- The ownership and use of the space station is established by intergovernmental treaties and agreements. The station is divided into two sections, the Russian Orbital Segment (ROS) and the United States Orbital Segment (USOS), which is shared by many nations.

Floating solar plant

- A 50MW floating solar plant will be set up in the country’s largest reservoir Rihand dam in Sonbhadra district in UP.

About Floating Solar Plants:

- Floating solar panels are attached to interconnected, plastic rafts that allow them to stay on top of the water. There are often floating walkways so workers can reach the solar panels.
- To operate in and around water, the materials used need to be made for marine environments. While inverters are typically located on shore, the wires used must be submersible or buoyed by flotation devices.
- Floating solar arrays need to include a number of features that protect them from the elements. The arrays also need to be strong enough to stay together. The last thing the owner needs is for a panel to go adrift. If there is a risk of the water freezing, there has to be some give in the anchoring system that allows them to rest on top of ice. Some arrays are also designed to be able to withstand small waves and fairly strong winds.

- While solar panels aren't quite ready to be installed on the open ocean yet due to the damage sea salt and tall waves can cause to them, technological advancements may allow that in the future. Until then, lakes provide the perfect placement for these systems.

Analysis:

- Floating solar farms provide countries that have limited space on land with somewhere to capture solar energy. They also allow underutilized areas, such as dam reservoirs, to become highly valuable power-generating stations.
- Floating systems may also perform better than arrays built on land. Solar systems installed on water will be cooler due to evaporating water, which causes them to operate more efficiently. According to a study by Korea Water Resources Corporation, a floating array could be 11% more productive than land-based systems.
- But despite being land neutral, the cost of the floating systems including anchoring, installation, maintenance and transmission renders the overall cost of the floating solar systems are much higher than the land based systems at this initial stage of development.
- Floating solar with just a few years of evolution has to address several technical issues. Besides the two major issues of corrosion and instability, other issues like the long term impact of moist environment on modules, cables, safe transmission of power through the floats to the nearest feeder point, the environmental impact on the water body and the marine life etc needs to be addressed and - make the system cost effective.

Global Carbon Project

- Global carbon emissions are set to hit an all-time high of 37.1 billion tonnes of CO₂ in 2018, according to researchers at the University of East Anglia (UEA) and the Global Carbon Project.

Highlights of the study:

- The rise in global carbon emission is due to the growing number of cars on the roads and a renaissance of coal use and means the world remains on the track to catastrophic global warming.
- The report estimates CO₂ emissions will rise by 2.7% in 2018, sharply up on the plateau from 2014-16 and 1.6% rise in 2017.
- Almost all countries are contributing to the rise, with emissions in China up 4.7%, in the US by 2.5% and in India by 6.3% in 2018. The EU's emissions are near flat, but this follows a decade of strong falls.
- The current Paris agreement pledges from nations will only limit global warming to 3C, while even a rise of 1.5C will be disastrous for many people.
- Every year of rising emissions puts economies and the homes, lives and livelihoods of billions of people at risk.
- Falling air pollution is enabling more of the sun's warmth to reach the Earth's surface, as aerosol pollutants reflect sunlight, while a long-term natural climate cycle in the Pacific is entering a warm phase. Global warming is accelerating. These trends will combine over the next 20 years to make climate change faster and more furious than anticipated.
- The Global Carbon Budget, produced by 76 scientists from 57 research institutions in 15 countries, found the major drivers of the 2018 increase were more coal-burning in China and India as their economies grew, and more oil used in more transport. Industry also used more gas. Renewable energy grew rapidly, but not enough to offset the increased use of fossil fuel.
- In the three years since the Paris agreement was signed, financial institutions have invested more than \$478bn in the world's top 120 coal plant developers.
- In the US, emissions rose as an unusually cold winter and hot summer boosted demand for both heating and cooling in homes. But it is expected that emissions will start to decline again in 2019, as cheap gas, wind and solar continue to displace coal – coal use has dropped 40% since 2005 and it is now at its lowest level since 1979.

- India, the third-highest contributor, is projected to see emissions rise by 6.3% from 2017. The 2.7% projected global rise in 2018 has been driven by appreciable growth in coal use for the second year in a row, and sustained growth in oil and gas use.
- The 10 biggest emitters in 2018 are China, U.S., India, Russia, Japan, Germany, Iran, Saudi Arabia, South Korea, and Canada. The EU as a region of countries ranks third. China's emissions accounted for 27% of the global total, having grown an estimated 4.7% in 2018 and reaching a new all-time high.
- Emissions in the U.S., which has withdrawn from its commitment to the Paris Agreement, account for 15% of the global total, and look set to have grown about 2.5% in 2018 after several years of decline.
- Limiting global warming to the 2015 Paris Agreement goal of keeping the global temperature increase this century to well below 2°C, would need carbon dioxide emissions to decline by 50% by 2030 and reach net zero by about 2050.
- Though coal use contributed to the rise in 2018 from last year, it still remains below its historical high in 2013 but may exceed that if current growth continues.

About Global Carbon Project:

- The Global Carbon Project was formed in 2001 to help the international science community to establish a common, mutually agreed knowledge base that supports policy debate and action to slow the rate of increase of greenhouse gases in the atmosphere.
- It is a Global Research Project of Future Earth and a research partner of the World Climate Research Programme. It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.
- The Global Carbon Project works collaboratively with the International Geosphere-Biosphere Programme, the World Climate Programme, the International Human Dimensions Programme on Global Environmental Change and Diversitas, under the Earth System Science Partnership.

GSAT-11

- India's heaviest satellite GSAT-11 was successfully launched from Kourou, a French territory located along the north eastern coast of South America with the help of the Ariane-5 vehicle.

About GSAT 11:

- GSAT-11 is the third in a series of four satellites aimed at achieving the government's ambitious target to provide high data connectivity of 100 GBPS in the country under the Digital India Mission.
- GSAT-11 is a next generation "high throughput" communication satellite configured around ISRO's I-6K Bus, and its designed lifetime is more than 15 years.
- The satellite will be initially placed in the Geosynchronous Transfer Orbit and later, raised to the Geostationary Orbit by firing the on-board Liquid Apogee Motor.
- The GSAT-11 is the fore-runner in a series of advanced communications satellites with multi-spot beam antenna coverage over Indian mainland and islands.
- The satellite will play a vital role in providing broadband services across the country and be a platform to demonstrate new generation applications.
- GSAT-11 would provide high data connectivity to users across India, broadband connectivity to gram panchayats under the Bharath Net project and support high data rate applications for enterprise network and consumer broadband applications.
- Since the launch of India's APPLE experimental satellite on Ariane Flight L03 in 1981, it has orbited 22 satellites under contracts with the Indian space agency, Arianespace said, adding that two more satellites, GSAT-31 and GSAT-30.

GSAT 11: How does it work?

- GSAT-11 will use a 'multi-spot' approach to maximize its coverage area in the Indian mainland and islands — a far superior communication technology than existing INSATs and GSATs.

Current Affairs

- In a first for a satellite built by ISRO, GSAT-11 will carry a next-generation I-6K bus (communication satellite hub) to provide services in two widely-used wavelengths for telecommunications: the Ku- and Ka-bands. This makes GSAT-11 three to six times more powerful than any of ISRO's (and India's) satellite roster today.
- It will provide up to 14 Gigabit/s in both voice and video broadband services anywhere in the Indian mainland or islands over its 15-year lifespan, according to ISRO.
- The satellite has 32 Ku-band transponders and 8 Ka-band hubs on board. The Ku- and Ka-bands are different frequencies of microwaves in the electromagnetic spectrum.