

CURRENT AFFIARS
1ST TO 10TH NOVEMBER 2018

GLOBAL COOLING INNOVATION SUMMIT

Two-day Global Cooling Innovation Summit inaugurated in New Delhi.

The event is jointly organized by the Department of Science and Technology, Government of India, along with Rocky Mountain Institute, Alliance for An Energy Efficient Economy (AEEE), Conservation X Labs and CEPT University.

HIGHLIGHTS

- The Summit is a first-of-its-kind solutions-focused event to explore concrete means and pathways to address the climate threat that comes from the growing demand from room air conditioners.
- **Global Cooling Prize** also launched during the summit— **Mission Innovation** challenge that aims to spur development of a residential cooling solution that has at least five times (5x) less climate impact than today's standard.
- Global Cooling Prize is a competition with global reach and participation to achieve dramatic breakthroughs in cooling technologies.
- The objective of this competition would be to develop a cooling technology that requires radically less energy to operate, utilizes refrigerants with no ozone depletion potential and with low global warming potential, and has the potential to be cost-effective at scale.

MISSION INNOVATION

- Mission Innovation (MI) is a global initiative of 23 countries and the European Union to dramatically accelerate global clean energy innovation.
- As part of the initiative, participating countries have committed to seek to double their governments' clean energy research and development (R&D) investments over five years, while encouraging greater levels of private sector investment in transformative clean energy technologies.
- These additional resources will dramatically accelerate the availability of the advanced technologies that will define a future global energy mix that is clean, affordable, and reliable.
- Mission Innovation was announced on November 30, 2015, as world leaders came together in Paris to undertake ambitious efforts to combat climate change.
- Each of the 23 participating countries and the European Union—which represent more than 80 percent of global clean energy R&D budgets—plans to seek to double its governmental and/or state-directed clean energy R&D investment over five years, reaching around a combined USD \$30 billion per year in 2021.
- New investments are focused on transformational clean energy technology innovations that can be scaled to varying economic and energy market conditions that exist in participating countries and in the broader world.

MISSION INNOVATION – INDIA

- India is one of the three countries responsible for crystalizing the idea of global initiative to accelerate the pace of innovation and make clean energy widely affordable, which culminated in Mission Innovation. Being a founding member and as steering committee member, India has played an active role in all Mission Innovation activities.
- India along with other member countries has agreed to double its investments in span of 5 years on development of clean energy technologies over the base investments of 2015.
- The **Mission Innovation programme is being coordinated by Department of Biotechnology, as a key nodal agency** and facilitating national efforts in collaboration with concerned ministries to promote RD&D efforts to accelerate clean energy innovations.

- India is an active Member of Mission Innovation and Co-lead of three Innovation Challenges: **Smart Grid, Off Grid Access and Sustainable Biofuels.**
- India has planned to draw 175 Giga-Watts of energy from renewable sources by 2022. This includes 100 Giga-Watts from Solar Energy and another 75 Giga-Watts from Wind, biomass and other sources.
- India is the fifth largest producer of solar energy in the world and also the sixth largest producer of renewable energy.
- The Government has also embarked on a major mission for construction of 100 smart cities that will use both renewables and energy efficient technologies.

SIMBEX-18

The 25th edition of SIMBEX, "Singapore-India Maritime Bilateral Exercise" held from November 10- 21, 2018 in the Andaman Sea and the Bay of Bengal.

The 2018 edition of the bilateral maritime exercise will be the largest edition since 1994 in terms of scale and complexity.

The initial harbour phase will be held at Port Blair, the capital of Andaman and Nicobar Islands from November 10-12, which will be followed by sea phase from November 12-16 in the Andaman Sea.

The second harbour phase will be held from November 16- 19 at Visakhapatnam – 'the City of Destiny'.

SIMBEX

- SIMBEX is an acronym for Singapore-India Maritime Bilateral Exercises.
- Bilateral cooperation between Singapore and India was first formalised when RSN ships began training with the Indian Navy in 1994.
- The modest endeavour to exchange best practices in the field of Anti-Submarine Warfare (ASW), has in the recent years evolved into a complex high stakes exercise with both nations attaching premium in terms of time, complex advanced exercises and type of platforms involved.
- SIMBEX is aimed to increase interoperability between the RSN and IN as well as develop common understanding and procedures for maritime security operations.
- The scope of the current exercise includes wide-ranging professional interactions during the Harbour Phase scheduled and a diverse range of operational activities at sea during the Sea Phase.
- The previous edition of the exercise was held off Singapore in the South China Sea in May 2017.

GLOBAL IT CHALLENGE FOR YOUTH WITH DISABILITIES 2018

Around 100 youth with disabilities (visual disability, hearing disability, locomotor disability and intellectual disability/developmental disorder) from 18 countries namely, India, Indonesia, China, Vietnam, Malaysia, Thailand, Sri Lanka, Bangladesh, Nepal, Mongolia, Cambodia, Laos, Philippines, Korea, Kazakhstan, Kyrgyzstan, UK and UAE has participated in the "Global IT Challenge for Youth with Disabilities, 2018".

HIGHLIGHTS

- The objective of the Global ICT Challenge for Youth with Disabilities is to leverage IT skills among youth with disabilities and also to spread awareness about the application of Information and Computer Technology (ICT) in enhancing the quality of life of persons with disabilities especially in Asia-Pacific region.
- It is a capacity building project that helps youth with disabilities to overcome their limitations and challenge themselves for a better future by providing them with access to ICT and related experiences, improving their ability to leverage information and social participation while setting ICT agendas for participant countries related to disabilities and boosting international cooperation and exchange.
- It is being held with a total of four events including e-Tool Challenge to evaluate the skills of using the MS Office programme and e-Life Map Challenge to evaluate the online information search ability in specific situations.

ADVANCED MOTOR FUELS TECHNOLOGY COLLABORATION PROGRAMME

Ministry of Petroleum & Natural Gas, Government of India has joined AMF TCP as its 16th member on 9th May, 2018. The other member Countries of AMF TCP are USA, China, Japan, Canada, Chile, Israel, Germany, Austria, Sweden, Finland, Denmark, Spain, Republic of Korea, Switzerland and Thailand.

AMF TCP works under the framework of International Energy Agency (IEA) to which India had "Association" status since 30th March, 2017.

The primary goal of joining AMF TCP is to facilitate the market introduction of Advanced motor fuels/ Alternate fuels with an aim to bring down emissions and achieve higher fuel efficiency in transport sector. AMF TCP also provides an opportunity for fuel analysis, identifying new/ alternate fuels for deployment in transport sector and allied R&D activities for reduction in emissions in fuel intensive sectors.

HIGHLIGHTS

- The R&D work in AMF TCP is carried out within individual projects called "Annex".
- Over the years, more than 50 Annexes have been initiated in AMF TCP and a number of fuels have been covered in previous Annexes such as reformulated fuels (gasoline & diesel), biofuels (ethanol, biodiesel etc.), synthetic fuels (methanol, Fischer- Tropsch, DME etc.) and gaseous fuels.
- Prime Minister at Urja Sangam, 2015 had directed to reduce the import in energy sector by at least 10% by 2022.
- Government of India has recently notified **National Policy on Biofuels-2018** which focusses on giving impetus to R&D in field of advanced biofuels such as 2G Ethanol, Bio-CNG, bio-methanol, Drop-in fuels, DME etc.
- These advanced fuels can be produced from various kind of wastes such as crop residues, Municipal solid waste, Industrial waste, waste gases, Food waste, plastic etc. Though some of these advanced biofuels have successfully been deployed in few countries, India is still awaiting its deployment in transport sector.

ADVANTAGES

The benefits of participation in AMF TCP are shared costs and pooled technical resources. The duplication of efforts is avoided and national Research and Development capabilities are strengthened. There is an information exchange about best practices, network of researchers and linking research with practical implementation. After becoming member, India will initiate R&D in other areas of its interest in advanced biofuels and other motor fuels in view of their crucial role in substituting fossil fuel imports.

AMF TCP

- AMF TCP is an international platform for co-operation among countries to promote cleaner and more energy efficient fuels & vehicle technologies.
- The activities of AMF TCP relate to R&D, deployment and dissemination of Advanced Motor Fuels and looks upon the transport fuel issues in a systemic way taking into account the production, distribution and end use-related aspects.

INTERNATIONAL ENERGY AGENCY

- IEA is a Paris-based autonomous intergovernmental organization established in the framework of the Organisation for Economic Co-operation and Development (OECD).
- Founded in 1974, the IEA was initially designed to help countries co-ordinate a collective response to major disruptions in the supply of oil.
- Only OECD member states can become members of the IEA.
- Except for Chile, Iceland, Israel, Latvia, Slovenia all OECD member states are members of the IEA.
- Mexico has recently joined IEA as 30th member.
- Brazil, China, India, Indonesia, Morocco, Singapore and Thailand are the associate members of IEA.

- The IEA examines the full spectrum of energy issues including oil, gas and coal supply and demand, renewable energy technologies, electricity markets, energy efficiency, access to energy, demand side management etc.
- The IEA acts as a policy adviser to its member states, but also works with non-member countries, especially China, India, and Russia.
- Its flagship releases are World Energy Outlook and Key World Energy Statistics.

INDIA ELECTED AS MEMBER OF ITU COUNCIL

India has been elected as a Member of the International Telecommunications Union (ITU) Council for another 4-year term (2019-2022). The elections to the Council were held during the ongoing ITU Plenipotentiary Conference 2018 at Dubai, UAE.

HIGHLIGHTS

- India ranked third among the 13 countries elected to the Council from the Asia-Australasia region, and eighth among the 48 countries elected to the Council globally.
- The ITU has 193 member states who elect representatives to the Council.

BACKGROUND

India has been an active member of the ITU since 1869, earnestly supporting the development and propagation of telecom in the global community of nations. The country has been a regular member of the ITU Council since 1952.

The recent ITU decision to set up the ITU South Asia Area Office and Technology Innovation Centre in New Delhi will be operational by January, 2019.

INTERNATIONAL TELECOMMUNICATION UNION (ITU)

- ITU is the specialized agency of United Nation (UN) for information and communication technologies (ICTs).
- It currently has a membership of 192 countries and more than 700 private-sector entities.
- Its secretariat is located in Geneva, Switzerland.
- It is responsible for the allocation of radio spectrum and satellite orbits, and for the standardization and development of ICTs worldwide.
- The work of ITU covers the whole ICT sector, from digital broadcasting to the Internet and from mobile technologies to 3D TV.
- It is unique among UN agencies in having both public and private sector membership

MULTI MODAL TERMINAL ON RIVER GANGA

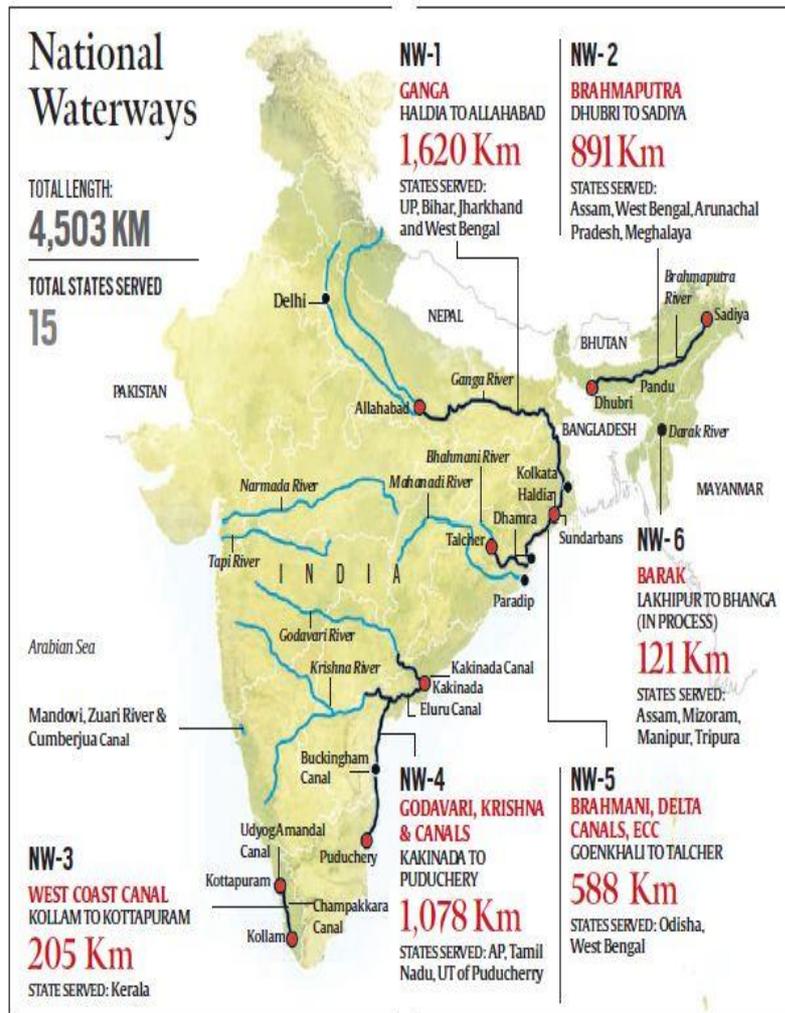
Prime Minister dedicated to the nation the newly constructed Multi Modal Terminal on River Ganga at Varanasi. This is the first of the three Multi Modal Terminals and two Inter Modal Terminals being constructed on the river.

HIGHLIGHTS

- The MMTs are being built as part of the Government's Jal Marg Vikas project that aims to develop the stretch of River Ganga between Varanasi to Haldia for navigation of large vessels upto 1500-2000 tonnes weight, by maintaining a draught of 2-3 metres in this stretch of the river and setting up other systems required for safe navigation.
- The objective is to promote inland waterways as a cheaper and more environment friendly means of transport, especially for cargo movement.
- Inland Waterways Authority of India (IWAI) is the project Implementing Agency.

JAL MARG VIKAS PROJECT

- The Jal Marg Vikas Project (JMVP) is being implemented on the Haldia-Varanasi stretch of National Waterway-1 (NW-1) with the technical assistance and investment support of the World Bank on a **50:50** sharing basis between Government of India and the World Bank.
- The project entails construction of 3 multimodal terminals (Varanasi, Sahibganj and Haldia); 2 intermodal terminals; 5 Roll On – Roll Off (Ro-Ro) terminal pairs; new navigation lock at Farakka; assured depth dredging; integrated vessel repair & maintenance facility, Differential Global Positioning System (DGPS), River Information System (RIS), river training & river conservancy works.



National Waterway-1: Allahabad-Haldia stretch of the Ganga-Bhagirathi-Hooghly river (1620 Km) declared as NW in 1986 in the states of Uttar Pradesh, Bihar, Jharkhand and West Bengal.

National Waterway-2: Sadiya-Dhubri stretch of the Brahmaputra river (891 Km) declared as National Waterway in 1988 in the state of Assam.

National Waterway-3: Kollam-Kottapuram stretch of West Coast Canal and Champakara and Udyogmandal canals (205 Km) declared as National Waterway in 1993 in the state of Kerala

National Waterway-4: Kakinada-Puducherry stretch of canals and Kaluvelly tank, Bhadrachalam-Rajahmundry stretch of river Godavari and Wazirabad-Vijayawada stretch of river Krishna (1078 Km) declared as National Waterway in 2008 in the states of Andhra Pradesh, Tamil Nadu and Union Territory of Puducherry.

National Waterway-5: Talcher-Dhamra stretch of Rivers, Geonkhali-Charbatia stretch of East Coast Canal, Charbatia-Dhamra stretch of Matai river and Mahanadi Delta Rivers (588 Km) declared as National Waterway in 2008 in the states of West Bengal and Orissa.

NATIONAL WATERWAY-6 IS UNDER ACTIVE CONSIDERATION.

GANGA GRAM

Ganga Gram is a concept to transform the villages on the bank of river Ganga into ideal villages with emphasis on Open Defecation Free, Solid and Liquid Waste Management, Water Conservation, Ground Water Recharge, modern crematorium, tree plantation, organic and medicinal plants.

GANGA GRAM YOJANA

Ganga Gram Yojana is taken under Ministry of Water Resources.

OBJECTIVE: To develop the villages located along the main stem of river Ganga which have historic, cultural, and religious and/or tourist importance

HIGHLIGHTS

- Under the “Namami Gange” Programme.
- Encompass comprehensive rural sanitation, development of water bodies and river ghats, construction/modernization of crematoria etc.
- Make the village open defecation free.
- Abate direct discharge of untreated liquid wastewater from such villages into river Ganga.
- Facilitate adequate infrastructure for crematoria.
- Develop proper solid waste disposal facilities in order to avoid any pollution to river Ganga.
- Promote better sanitation practices in the villages through IEC activities.
- 1600 villages situated along the banks of river Ganga will be developed under this scheme.
- These villages will be developed under the Sicheval model. Sicheval is situated in Punjab, where cooperation of the villagers has been solicited for the water management and waste disposal in a meticulous way.

SICHEWAL MODEL

The Centre will replicate the model of Punjab’s Seechewal village (Jalandhar) for development of 1,600 villages located on the banks of the Ganga under the Namami Gange mission.

Seechewal and its contiguous villages have been successfully transformed by environmentalist Balbir Singh Seechewal with public-private efforts. Earlier, he rejuvenated the historic Kali Bein tributary of the Beas with the help of local people (voluntary kar sevaks).

The Union Ministry of Water Resources, River Development and Ganga Rejuvenation was impressed with the Seechewal model, which included a low-cost and locale-specific sewage system.

- A salient feature of the Seechewal model is the **storage of sewage water in a pond and its use for irrigation after treatment in a natural way.**
- It is a low-cost model that collects sewage water from ponds and treats it in a natural way so it can be used for agriculture and irrigation purposes.
- Model gave a solution to treat solid waste with a machine that can help separate heavy particles like polythene, glass, and iron from the garbage. It can be cheaply manufactured and is being tested for further improvements.

OPERATION GREENS

Ministry of Food Processing Industries (MoFPI) has approved the operationalisation strategy for Operation Greens.

Operation Greens was announced in the Budget speech of 2018-19 with an outlay of Rs 500 crores to stabilize the supply of Tomato, Onion and Potato (TOP) crops and to ensure availability of TOP crops throughout the country round the year without price volatility.

OBJECTIVES

- Enhancing value realisation of TOP farmers by targeted interventions to strengthen TOP production clusters and their FPOs, and linking/connecting them with the market.
- Price stabilisation for producers and consumers by proper production planning in the TOP clusters and introduction of dual use varieties.

- Reduction in post-harvest losses by creation of farm gate infrastructure, development of suitable agro-logistics, creation of appropriate storage capacity linking consumption centres.
- Increase in food processing capacities and value addition in TOP value chain with firm linkages with production clusters.
- Setting up of a market intelligence network to collect and collate real time data on demand and supply and price of TOP crops.

MEASURES DECIDED

1. Short term Price Stabilisation Measures

NAFED will be the Nodal Agency to implement price stabilisation measures. MoFPI will provide 50% of the subsidy on the following two components:

- Transportation of Tomato Onion Potato (TOP) Crops from production to storage.
- Hiring of appropriate storage facilities for TOP Crops.

2. Long Term Integrated value chain development projects

- Capacity Building of FPOs & their consortium
- Quality production
- Post-harvest processing facilities
- Agri-Logistics
- Marketing / Consumption Points
- Creation and Management of e-platform for demand and supply management of TOP Crops.

HIGHLIGHTS

- The pattern of assistance will comprise of grants-in-aid at the rate of 50% of the eligible project cost in all areas, subject to maximum Rs. 50 crores per project.
- However, in case where PIA is/are FPO(s), the grant-in-aid will be at the rate of 70% of the eligible project cost in all areas, subject to maximum Rs. 50 crores per project.
- Eligible Organisation would include State Agriculture and other Marketing Federations, Farmer Producer Organizations (FPO), cooperatives, companies, Self-help groups, food processors, logistic operators, service providers, supply chain operators, retail and wholesale chains and central and state governments and their entities/organizations will be eligible to participate in the programme and to avail financial assistance.

DEEP SUBMERGENCE RESCUE VESSEL (DSRV) CAPABILITY

The Indian Navy has inducted a Submarine Rescue System with a Deep Submergence Rescue Vessel (DSRV) along with associated equipment.

HIGHLIGHTS

- This System has a **Side Scan Sonar** for locating the position of the submarine in distress at sea, providing immediate relief by way of posting Emergency Life Support Containers with the help of **Remotely Operated Vehicle (ROV)** and thereafter rescuing the crew of the submarine using the DSRV itself.
- To ensure early mobilisation, the System has been procured in a **Flyaway configuration** which permits rapid transportation of the Rescue System from the base to the exact location of the distressed submarine by transportation using air/land/sea vessels.
- The Indian DSRV has the capability to rescue personnel from a distressed submarine (DISSUB) up to a depth of **650 m** and it is the latest in terms of technology and capabilities.
- It has been designed and supplied to meet unique requirements of our submarines by M/s James Fishes Defence, UK.

- The ordered two Systems shall be based on the West and East Coast of India respectively to provide redundancy, high operational availability and early response to deal with a submarine contingency.

OUTREACH INITIATIVE FOR MSME SECTOR

The Prime Minister launched an outreach programme for the Micro, Small and Medium Enterprises (MSME) sector. As part of this programme, the Prime Minister unveiled 12 key initiatives which will help the growth, expansion and facilitation of MSMEs across the country.

HIGHLIGHTS

There are five key aspects for facilitating the MSME sector. These include **access to credit, access to market, technology upgradation, ease of doing business, and a sense of security for employees.**

- He announced the launch of the **59 minutes loan portal** to enable easy access to credit for MSMEs. Loans upto Rs. 1 crore can be granted in-principle approval through this portal, in just 59 minutes.
- 2 % interest subvention for all GST registered MSMEs, on fresh or incremental loans. For exporters who receive loans in the pre-shipment and post-shipment period, an increase in interest rebate from 3 percent to 5 percent.
- All the companies with a turnover more than Rs. 500 crores must now compulsorily be brought on the Trade Receivables e-Discounting System (TReDS), joining this portal will enable entrepreneurs to access credit from banks, based on their upcoming receivables.
- Public sector companies have now been asked to compulsorily procure 25 percent, instead of 20 percent of their total purchases, from MSMEs.
- 25 percent procurement mandated from MSMEs, 3 percent must now be reserved for women entrepreneurs.
- All public sector undertakings of the Union Government must now compulsorily be a part of GeM.
- 20 hubs will be formed across the country, and 100 spokes in the form of tool rooms will be established.
- He said clusters will be formed of pharma MSMEs. 70 percent cost of establishing these clusters will be borne by the Union Government.
- The return under 8 labour laws and 10 Union regulations must now be filed only once a year.
- The establishments to be visited by an Inspector will be decided through a computerised random allotment.
- As part of establishing a unit, an entrepreneur needs two clearances namely, environmental clearance and consent to establish. Under air pollution and water pollution laws, now both these have been merged as a single consent.
- An Ordinance has been brought, under which, for minor violations under the Companies Act, the entrepreneur will no longer have to approach the Courts, but can correct them through simple procedures.

ATAL PENSION YOJANA

The Subscriber base under APY has crossed 1.24 crore mark. The Atal Pension Yojana (APY) is the guaranteed Pension Scheme of Government of India administered by PFRDA.

ATAL PENSION YOJANA: Under Ministry of Finance

OBJECTIVE: To address the longevity risks among the workers in unorganised sector and to encourage the workers in unorganised sector to voluntarily save for their retirement

HIGHLIGHTS

- Launched in 2015.
- The existing subscribers of Swavalamban Scheme would be automatically migrated to APY, unless they opt out.
- Administered by the Pension Fund Regulatory and Development Authority.

- The minimum age of joining APY is **18 years and maximum age is 65 years**.
- Minimum period of contribution by the subscriber under APY would be 20 years or more.
- Atal Pension Yojana (APY) is open to all bank account holders who are not members of any statutory social security scheme.
- The APY will be focussed on all citizens in the unorganised sector, who join the National Pension System (NPS) administered by the Pension Fund Regulatory and Development Authority (PFRDA) and who are not members of any statutory social security scheme.
- Now small finance banks and payment banks can also offer APY (Changed in January 2018)
- Contribution of subscribers would vary based on their age
- Subscribers would receive the fixed pension of Rs. 1K/2K/3K/4K/5K per month, at the age of 60 years, depending on their contributions.
- The Central Government would also co-contribute 50% of the subscriber's contribution or Rs. 1000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years, i.e., from 2015-16 to 2019-20, who join the NPS before 31st December, 2015 and who are not income tax payers.
- There is no exit to the scheme before the age of 60. In case of death of subscriber, the spouse of the subscriber shall be entitled for the same amount of pension till his or her death.

RECENT CHANGES IN THE SCHEME

- All accounts opened after August 2018 will have accident insurance limit of Rs 2 lakh, double than earlier Rs 1 lakh limit.
- The overdraft facility of the scheme was also increased from Rs 5,000 to Rs 10,000.
- Earlier, people of age **18 to 60 years** were entitled to enrol in this scheme. But now it has been relaxed further to **65 years**, taking into consideration rise in average age-expectancy.

SCO JOINT EXERCISE ON URBAN EARTHQUAKE SEARCH & RESCUE 2019

The two-day long preparatory meeting of the "Shanghai Cooperation Organization Joint Exercise on Urban Earthquake Search & Rescue- 2019 began. This marks the first phase of the main exercise scheduled for 21-24 February, 2019 in Delhi by India.

The **National Disaster Response Force (NDRF)** has been entrusted with the responsibility of organizing the exercise by Government of India.

BACKGROUND

India has always been at the forefront of the Disaster Risk Resilience (DRR) efforts by hosting the South Asian Annual Disaster Management Exercise (SAADME), Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR) and Bay of Bengal Initiatives for Multi-Sectoral, Technical and Economic Corporation (BIMSTEC).

The preparatory meeting will be helpful to chalk out the plan, discuss requirements, details and modalities of main exercise, which is scheduled for February, 2019. The exercise will be based on **INSARAG guideline**.

INTERNATIONAL SEARCH AND RESCUE ADVISORY GROUP (INSARAG)

INSARAG is a global network of more than 80 countries and organisations under the United Nations umbrella.

INSARAG deals with urban search and rescue (USAR) related issues, aiming to establish minimum international standards for USAR teams and methodology for international coordination in earthquake response based on the INSARAG Guidelines endorsed by the **United Nations General Assembly Resolution 57/150 of 2002, on "Strengthening the Effectiveness and Coordination of International Urban Search and Rescue Assistance**

- The International Search and Rescue Advisory Group (INSARAG) was established in 1991.
- This establishment followed the initiatives of the specialised international Urban Search and Rescue (USAR) teams who operated together in the Mexican earthquake of 1985 and Armenian earthquake of 1988.

- The INSARAG's primary purpose is to facilitate coordination between the various international USAR teams who make themselves available for deployment to countries experiencing devastating events of structural collapse due primarily to earthquakes.

EK BHARAT SHRESHTH BHARAT

Ek Bharat Shreshtha Bharat was announced by Hon'ble Prime Minister on 31st October, 2015 on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel.

The Ek Bharat Shreshtha Bharat programme, aims to actively enhance interaction between people of diverse cultures living in different States and UTs in India, with the objective of promoting greater mutual understanding amongst them.

As per the programme, each year, every State/UT would be paired with another State/UT in India for reciprocal interaction between the people.

It is envisaged through this exchange, that the knowledge of the language, culture, traditions and practices of different states will lead to an enhanced understanding and bonding between one another, thereby strengthening the unity and integrity of India.

OBJECTIVES

- To CELEBRATE the Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country;
- PROMOTE the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States;
- To SHOWCASE the rich heritage and culture, customs and traditions of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity;
- TO ESTABLISH long-term engagements and
- TO CREATE an environment which promotes learning between States by sharing best practices and experiences.

Engagement matrix between states and UTs

- | | |
|-------------------------------|---|
| ▪ Jammu & Kashmir | ▪ Delhi & Sikkim & Assam |
| ▪ Tamil Nadu & Andhra Pradesh | ▪ Madhya Pradesh & Manipur & Nagaland |
| ▪ Himachal Pradesh & Kerala | ▪ Uttar Pradesh & Arunachal Pradesh & Meghalaya |
| ▪ Uttarakhand & Karnataka | ▪ Bihar & Tripura & Mizoram |
| ▪ Haryana & Telangana | ▪ Chandigarh & Dadra & Nagar Haveli |
| ▪ Rajasthan & West Bengal | ▪ Puducherry & Daman & Diu |
| ▪ Gujarat & Chhattisgarh | ▪ Lakshadweep & Andaman & Nicobar |
| ▪ Maharashtra & Odisha | |
| ▪ Goa & Jharkhand | |

UTSON MOBILE APP

Ministry of Railways has introduced Unreserved Mobile Ticketing.

HIGHLIGHTS

- The facility of booking unreserved tickets, including season tickets and also platform tickets is available through the 'UTSONMOBILE' app.
- Mobile Ticketing shall promote 3C's- Cashless transactions, Contact less ticketing and Customer convenience.
- Seamless booking of unreserved tickets all over Indian Railways.
- Application 'in house' developed by Indian Railway- CRIS.

URBAN CAFÉ: RIVER FOR HABITAT

The National Mission for Clean Ganga partnered with UN Habitat to organize a policy dialogue- 'Urban Cafe: River for Habitat' in New Delhi on the occasion of World Cities Day 2018.

OBJECTIVES

- No untreated sewage of industrial effluent should be allowed to flow into rivers.
- There should be no dumping of solid waste on flood plains.
- There should be a focus on increasing water usage efficiency in agriculture.
- Reducing extraction of ground water.

OUTCOMES

- River and river basins should be seen as '**national capital or asset**'.
- Development of Urban River Plan from where the river enters the city and where it exits.
- Emphasizing the importance of ghats, the experts further noted that not only do ghats connect river to the people but also promote safety of the river and people.

INDEX OF INDUSTRIAL PRODUCTION (IIP)

- IIP denotes the level of economic activity in different sectors, including manufacturing, mining and power.
- It measures actual production output across the industrial sector.
- It is calculated by Central Statistical Office (CSO) under Ministry of Statistics and Program Implementation.
- The base year for calculating IIP is 2011-12.
- The total number of items in IIP is 809 within major categorization of manufacturing, mining and electricity.
- The manufacturing is given the highest weightage (77%) followed by mining (14%) and electricity (7%).
- Within IIP, there are 8 core industries which includes **Coal, fertilizer, electricity, crude oil, natural gas, refinery products, steel, and cement.**
- These 8 core industries comprise 40% of the weight of items included in IIP.

NATIONAL INVESTMENT INFRASTRUCTURE FUND

NIIF is going acquire controlling interest in private infrastructure lender IDFC.

HIGHLIGHTS

- This acquisition is the first investment from NIIF's Strategic Fund and the first control transaction for NIIF.
- The NIIF is a trust that raises debt to invest in the equity of infrastructure finance companies.
- It acts like a banker's bank in infrastructure financing.
- Government owns 49% of NIIF.
- It provides equity support to NBFCs/ Financial Institutions (FIs) engaged in infrastructure financing.
- It also provides equity/ debt to commercially viable projects, both Greenfield and Brownfield, including stalled projects.
- It is being considered as an Alternative Investment Fund (AIF) under SEBI regulation.

BACKGROUND

- A typical sovereign wealth fund (SWF) will be a state-owned investment company owned by governments and invests their own money in foreign countries
- Though the NIIF acts like an SWF, it does not invest in assets such as stocks, bonds, real estate, commodities etc like an SMF do and therefore cannot be called so.
- The Abu Dhabi Investment Authority (ADIA) became the first institutional investor in the NIIF with an investment of \$1 billion.
- An India-UK Green Growth Equity Fund (GGEF) is also being set-up under the fund of funds under NIIF.

- GGEF shall receive funds worth 120 million each from Government of India (through NIIF) and Government of UK.
- The fund aims to leverage private sector investment from the City of London to invest in Green Infrastructure Projects in India.

NATIONAL ACTION PLAN FOR CONSERVATION OF MIGRATORY BIRDS

Union government has come out with a 5-year national action plan to conserve habitats of migratory birds.

HIGHLIGHTS

- It specifically covers species which take long distances from Siberia in Russia to make the country their temporary home during winter.
- The action plan is brought out by **Union Environment Ministry which spans 2018-2023.**
- It is meant for coordinated actions among states for securing and enhancing population of migratory birds in India within their range across the **Central Asian Flyway (CAF).**
- A flyway is a geographical region within which a single or a group of migratory species completes its annual cycle – breeding, moulting, staging and non-breeding.
- **CAF is one of the 9 flyways in the world.**
- CAF covers northernmost breeding ground in Siberia to the southernmost non-breeding grounds in west and south Asia, the Maldives and the British Indian Ocean Territory.

CENTRAL ASIAN FLYWAY

- The Central Asian Flyway (CAF) covers a large continental area of Eurasia between the Arctic and Indian Oceans and the associated island chains.
- The Flyway comprises several important migration routes of water birds, most of which extend from the northernmost breeding grounds in the Russian Federation (Siberia) to the southernmost non-breeding (wintering) grounds in West and South Asia, the Maldives and the British Indian Ocean Territory.
- There is an overlap between the CAF and the area of the Agreement on the Conservation of African-Eurasian Migratory Water birds (AEWA), which was concluded in 1995, at The Hague, the Netherlands.
- Sixteen out of the thirty countries encompassed by the CAF are located in the AEWA Agreement Area.

BIRDLIFE FLYWAY PROGRAMME

- The **BirdLife Flyways Programme** is working on the ground to protect chains of Important Bird & Biodiversity Areas (IBAs) that are critical for migratory birds, and to reduce threats along these routes.
- Analyses of the data that BirdLife compiles for the IUCN Red List show that migratory birds have become more threatened since 1988, with 33 species moving to more serious threat categories, and just six improving in status.

BirdLife International is a global partnership of conservation organisations (NGOs) that strives to conserve birds, their habitats and global biodiversity, working with people towards sustainability in the use of natural resources. There are 121 BirdLife Partners worldwide – one per country or territory.

SECTION 7 OF RBI ACT 1934

The Central government has reportedly initiated steps towards invoking its powers under Section 7 of the RBI Act of 1934.

HIGHLIGHTS

The central government issued three letters to the central bank in the last one month for consultation under Section 7 of the RBI Act.

- The First letter pertained to exemption for power companies from new stressed asset norms.
- The second one was related to dilute capital threshold norms of the **prompt corrective action framework.**

- The third one was pertaining to more capital to the government from the reserves of the central bank.

However, RBI has refused to provide any leeway to stressed borrowers or give in to the demand of higher dividend by the government. RBI on its part said that it has responded to all the communications that were sent by the government and has decided to maintain its stance.

This made the government to invoke its powers and initiate consultations under Section 7.

- The government has now started the first step under Section 7, which is to start consultations with the RBI Governor on issues such as easing the PCA framework, providing more credit to small units.
- The next step lies in issuing a directive to the RBI, something which has never been done so far in the history of the RBI.
- The finance ministry recently issued a statement emphasising on RBI's autonomy, but added that it would continue consultations.
- Thus, the autonomy for the central bank, within the framework of the RBI Act, is an essential and accepted governance requirement and the central government should nurture and respect it.

SECTION 7

- It is a provision under which the government can give directions to the RBI to take certain actions in the public interest. This provision has been built into the law governing not just the RBI but also regulatory bodies in other sectors.
- Section 7 has two parts - consultation and then issuing a direction to the RBI for taking some action in public interest.
- Under it, the Central Government may from time to time give such directions to the Bank as it may consider necessary in the public interest.
- This has to be done only after consultation with the Governor of RBI.
- Subject to any such directions, the general superintendence and direction of the affairs and business of the Bank shall be entrusted to a Central Board of Directors.
- The Central Board of Directors in turn will exercise all powers and do all acts and things which may be exercised or done by the Bank.
- The Central Board of Directors comprises a Governor and [not more than four] Deputy Governors to be appointed by the Centre, four Directors to be nominated by the Centre and one government official nominated by the Centre.
- Giving control of the RBI to its Board of Directors effectively gives control to the Central Government.

Until now, however, the government has never exercised its powers under Section 7 of the RBI Act.

INTERNATIONAL SOLAR ALLIANCE

Botswana has recently announced its decision to join International Solar Alliance.

BACKGROUND

- The International Solar Alliance is an alliance of more than 120 countries, most of them being sunshine countries, which come either completely or partly between the Tropic of Cancer and the Tropic of Capricorn.
- It aims to channel \$300 billion in 10 years to promote renewable energy projects under a global mega fund for clean energy.
- The framework pact was initiated by the Indian and French governments at the climate change summit held at Paris in 2015.
- It opened ISA Framework Agreement for signature in Marrakech, Morocco in 2016, on the side-lines of COP-22.
- After ratification by 15 countries, ISA became the first full-fledged treaty based international intergovernmental organization headquartered in India.

- Till date, out of 121 prospective member countries that lie either fully or partially between the Tropics of Cancer and Capricorn, 68 countries have signed the Framework Agreement of the ISA.
- In the first assembly of ISA, a resolution was passed for amending the framework agreement to open ISA membership to all countries that are members of United Nations.

SECURE HIMALAYA

The SECURE Himalaya project was launched by the union government in association with the United Nations Development Programme (UNDP).

UNDP has recently launched a competition for tagline and illustration with the theme “Protecting Wildlife, Preserving Landscapes and Empowering Communities in the High-altitude Himalaya”.

HIGHLIGHTS

- SECURE Himalaya project was launched by the Indian Government to ensure the conservation of forest resources, land and biodiversity with local and global significance on the inaugural day of the Global Wildlife Programme (GWP) conference.
- It covers the high Himalayan Ecosystem spread over **Uttarakhand, Sikkim, Jammu & Kashmir and Himachal Pradesh.**
- This project is a collaboration between the Environment, Forests and Climate Change Ministry (MoEFCC) and the UNDP (United Nations Development Programme).
- The project was launched in the background of increasing habitat degradation, fragmentation of area which is increasing due to the high dependence of the local communities on the natural resources and unplanned infrastructure.
- SECURE Himalayas project is spread over 6 years.
- The objective of the project is to secure people’s livelihood, restore, conserve and use sustainably the high range ecosystems of the Himalayas.

The project is implemented in specific landscapes such as:

- Kanchenjunga – Upper Teesta Valley in Sikkim.
- Gangotri – Govind and Darma – Byans Valley in Pithoragarh in Uttarakhand.
- Lahaul – Pangi and Kinnaur in Himachal Pradesh.
- Changthang in Jammu and Kashmir.

The key focus of the project is on improving the enforcement to ensure the reduction in wildlife crime, protection of snow leopard and other endangered species and ensuring a secure livelihood to the people in the region.

The government also launched India Wildlife mobile App and released the National Wildlife Action Plan for the period 2017-2031.

UNDP

- UNDP, an UN organization formed in 1965, is to help countries eliminate poverty and achieve sustainable human development.
- Sustainable human development is an approach to economic growth that emphasizes improving the quality of life of all citizens while conserving the environment and natural resources for future generations.
- The status of UNDP is that of an executive board within the United Nations General Assembly.
- It is working to strengthen new frameworks for development, disaster risk reduction and climate change.
- UNDP also encourages the protection of human rights and the empowerment of women in all of its programmes.

- The UNDP Human Development Report Office also publishes an annual Human Development Report (since 1990) to measure and analyze developmental progress
- In addition to a global Report, UNDP also publishes regional, national, and local Human Development Reports.

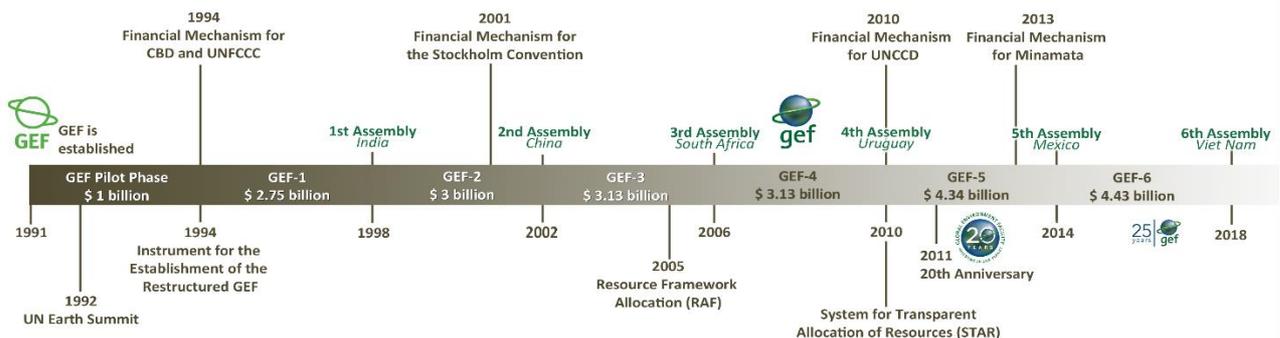
SOVEREIGN BLUE BOND

The Republic of Seychelles has recently launched the world's first sovereign blue bond.

HIGHLIGHTS

- Blue Bond is a financial instrument designed to support sustainable marine and fisheries projects.
- It is partially guaranteed by a US\$5 million guarantee from the World Bank (IBRD).
- It is further supported by a US\$5 million concessional loan from the Global Environment Facility (GEF) which will partially cover interest payments for the bond.
- Proceeds from the bond will also contribute to the World Bank's South West Indian Ocean Fisheries Governance.
- It combines Public and private investment to mobilize resources for empowering local communities and businesses in achieving a transition to sustainable fisheries.

GLOBAL ENVIRONMENT FACILITY



The Global Environment Facility (GEF) was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems

An independently operating financial organization, the GEF provides grants for projects related to **biodiversity, climate change, international waters, land degradation, the ozone layer, persistent organic pollutants (POPs), mercury, sustainable forest management, food security, sustainable cities.**

HOPE ISLAND

Greater Flamingoes have recently been spotted on the coast of Hope island after a long period.

HIGHLIGHTS

- Hope island is a part of the Coringa Wildlife Sanctuary, off the coast of Kakinada, Andhra Pradesh.
- It is relatively a young island, formed from the sediment outflow carried by the waters of the Koringa River, a distributary of the Godavari.
- It acts as natural barrier for storm surges and provides tranquility to the ships anchored in Kakinada Bay which makes Kakinada Port one of the safest natural ports in the Eastern Coast of India.
- The northern tip of the island is called "Godavari Point", which overlooks the entry point into the Kakinada Bay and the Kakinada harbour.

PMI – SERVICE

Purchasing Managers' Index (PMI) for services of the October month has been released recently. This is the fifth successive month of expansion.

HIGHLIGHTS

- PMI is an indicator of the economic health and investor sentiments about the manufacturing sector (Manufacturing PMI) and services sector (Services PMI).
- Its purpose is to provide information about current business conditions to company decision makers, analysts and purchasing managers.
- For India, the PMI Data is published by Japanese firm Nikkei but compiled and constructed by Markit Economics.
- In a PMI survey, a standard questionnaire is administered to business entities
- The respondents can either give a "Positive, Neutral or Negative" response and each response is marked as "1, 0.5 or 0" on the score card respectively.
- In adding up the response, a reading above 50 indicates economic expansion, while a reading below 50 points shows contraction of economic activities.

VdW MATERIAL

VdW materials are made of piles of ultra-thin layers that are held together by van der Waals bonds.

HIGHLIGHTS

- **Van der Waals bonds** are weak forces exist between molecules of same substance and arise when atoms are in close proximity.
- VdW materials have the potential to replace the current hard drive assemblies in computers and become the key to quantum computing.
- Controlling magnetism is typical of VdW materials.
- The layers in the material can be changed, added or removed in order to introduce magnetism and other new physical properties in the material.

UDAN 3

Ude Desh Ki Aam Nagrik (UDAN) is a regional connectivity scheme introduced by the Ministry of Civil Aviation.

Among the destinations, the recently unveiled Statue of Unity at Sardar Sarovar Dam, Sabarmati Riverfront in Ahmedabad, Tehri Dam in Uttarakhand and Nagarjuna Sagar in Telangana are included.

HIGHLIGHTS

- Under UDAN 3, government proposes to connect destinations through seaplanes and have invited bids for the same.
- UDAN offers concessions to the airlines to encourage them to fly on regional routes.
- Concession include operating subsidies like levies or charges imposed by the airport operators, excise duty at 2% and VAT at 1% on aviation turbine fuel, parking charges at airports and exempting these operations from the GST net.
- **Airports Authority of India (AAI)** is the implementing agency.
- A Regional Connectivity Fund (RCF) will be created to subsidise operations under the RCS.
- The central government will fund 80% of the losses incurred and the rest will be covered by the states.
- This is provided through the Viability gap funding (VGF) to the selected airline operators from RCF, and state governments will be required to reimburse the applicable share.
- VGF will be provided for three years from the date of commencement of operations of such RCS flights.

- In general, central and state contributions for VGF are 80:20 and for the north-eastern states & union territories it is 90:10.
- Benefits under the Scheme will be available for a period of 10 years from the date of its notification.
- RCS will be made operational only in states and at airports which are willing to provide concessions required under the Scheme.

SDG GLOBAL MEDIA COMPACT

Global media compact was introduced in the last session of UN general assembly in collaboration with UN foundation.

HIGHLIGHTS

- It is an initiative marking a new drive to advance awareness of the Sustainable Development Goals (SDGs).
- The Compact seeks to inspire media and entertainment companies around the world to leverage their resources and creative talent to advance the Goals.
- It is inclusive and aims to embrace media companies from all regions and all platforms.
- The 17 Sustainable Development Goals were adopted by world leaders at the historic Sustainable Development Summit in September 2015.

POLARIMETRY DOPPLER WAETHER RADAR

ISRO has inaugurated the Polarimetry Doppler Weather Radar (DWR) at Sriharikota spaceport.

- It provides advanced information, enhances the lead-time essential for saving lives and property in the event of a natural disaster associated with severe weather.
- While conventional radars are able to track and predict cyclones, the DWR provides detailed information on a storm's internal wind flow and structure.
- The polarimetric capability of the radar will significantly improve the accuracy of rainfall estimation leading to accurate and timely flash flood warnings.

DOPPLER WEATHER RADAR

- Doppler weather radar is an observational tool for monitoring and predicting severe weather events such as hailstorms, thunder storms, cyclones and tornados.
- It uses the Doppler effect by bouncing a microwave signal off a desired target to produce velocity data.
- This data helps in analyzing object's motion by altered the frequency of the returned signal. It mainly gives information about wind velocity and also about precipitation.
- DWR can provide area specific rain and storm warnings which are beneficial for disaster management and emergency response, aviation and related service. It can be used for wind speed measurements during cyclones and thunderstorms which is not possible in conventional weather radar. Thus, it helps in providing improved warning and better weather forecasts.

Doppler effect: It is an increase (or decrease) in the frequency of sound, light, or other waves as the source and observer move towards (or away from) each other.

US SNACTIONS ON IRAN & WAIVER TO OTHER NATIONS

U.S. decided to grant India and seven other countries waivers on the sanctions it re-imposed on Iran recently.

HIGHLIGHTS

- U.S. has agreed to waive sanctions on the purchase of oil from Iran for about six months.
- Though the details of the waivers are yet to be released, it provides some temporary relief to India and avoids any major oil price shocks.

- The waivers announced also cover Indian investment in Iran's Chabahar port and the plan to build a railway line from Chabahar to Afghanistan to facilitate trade.
- India has committed \$500 million to the Chabahar project and \$2 billion to build a railway line from Chabahar to Hajigaj in Afghanistan.
- Hence, U.S. has provided for an exception from the imposition of certain sanctions under the Iran Freedom and Counter-Proliferation Act of 2012 (IFCA) with respect to the development of Chabahar Port and the railway line.
- The IFCA was one of the laws under which sanctions on Iran were earlier imposed, with implications for non-US companies working with Iran in various sectors including shipping, shipbuilding, energy and insurance.
- U.S. also considers the costs incurred in pushing around allies and partners such as India, Japan and South Korea to "zero out" oil purchases.

This flexibility could be a sign that the U.S. is leaving space for leeway in resuming talks with Iran in the long term.

INDIA - JAPAN

WTO dispute settlement panel has ruled against India in its disagreement with Japan over import duties on hot-rolled steel.

BACKGROUND

- The World Trade Organization came into being in 1995, it is the successor to the General Agreement on Tariffs and Trade (GATT).
- The World Trade Organization (WTO) is the only international organization dealing with the global rules of trade between nations, the HQ is located in Geneva.
- Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.
- Virtually all decisions in the WTO are taken by consensus among all member countries and they are ratified by members' parliaments.
- Trade friction is channelled into the WTO's dispute settlement process where the focus is on interpreting agreements and commitments.

HIGHLIGHTS

- In the last financial year, Indian imports of steel from Japan and South Korea were 45 per cent of the total steel imports of 8.4 million tones and the total value of steel imports was \$6.5 billion.
- India has sought to protect the domestic steel industry consistently over the past three years, following a plea by domestic producers to the government.
- A three-member dispute settlement panel at the World Trade Organization (WTO) has ruled against India in its disagreement with Japan over import duties on hot-rolled steel.
- India has failed to substantiate that a sudden and sustained increase in imports had significantly harmed domestic producers.

CHALLENGES BEFORE INDIA

- India's turn towards protectionist trade policy over the past years has not gone unnoticed at the WTO and a pattern is beginning to be visible when it comes to India at the WTO.
- A sharp protectionist action is taken and, subsequently, India fails to back it up at the WTO with suitable arguments.
- This might well happen next with its hard stand on agricultural procurement, where India is defending its complex web of minimum support prices at the WTO amid international isolation and even opprobrium.
- In one landmark ruling earlier this year, a WTO panel ruled that "domestic content requirements" in India's solar panels breached trading rules.

- These requirements were scaled up as part of India's effort to indigenize the manufacturing of solar panels amid a scale-up of renewable energy generation capacity.
- The decision itself was contested within the government; the ministry of new and renewable energy argued that cheaper solar panels were essential to India's solar mission, while the department of industrial policy and promotion wanted to push Indian solar panel manufacturing.

PNEUMONIA & DIARRHOES REPORT: IVAC

International Vaccine Access Centre (IVAC) has recently released "Pneumonia and Diarrhoea Progress Report". The report was released ahead of the 10th World Pneumonia Day on November 12.

HIGHLIGHTS

- The report looked at progress in fighting pneumonia and diarrhoea in 15 countries which accounted for 70% of global pneumonia and diarrhoea deaths in children under five.
- Globally, pneumonia and diarrhoea led to nearly one of every four deaths in children under five years of age in 2016.
- According to the report, India continues to have the highest burden of pneumonia and diarrhoea child deaths in the world.
- India's progress – Coverage of Haemophilus Influenzae Type B (Hib) vaccine and introduction of rota virus vaccine led to improvement in addressing diarrhoea deaths.
- **Pneumococcal Conjugate Vaccine (PCV)** was introduced in 2017 under **Universal Immunisation Programme (UIP)** to address pneumonia.

UNIVERSAL IMMUNISATION PROGRAMME:

Immunization Programme in India was introduced in 1978 as 'Expanded Programme of Immunization' (EPI) by the Ministry of Health and Family Welfare, Government of India.

- In 1985, the programme was modified as 'Universal Immunization Programme' (UIP) to be implemented in phased manner to cover all districts in the country by 1989-90 with the one of largest health programme in the world.
- Ministry of Health and Family Welfare, Government of India provides several vaccines to infants, children and pregnant women through the Universal Immunisation Programme.
- It became a part of Child Survival and Safe Motherhood Programme in 1992 and is currently one of the key areas under National Rural Health Mission (NRHM) since 2005.
- The program now consists of **vaccination for 12 diseases- tuberculosis, diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, measles, hepatitis B, diarrhoea, Japanese encephalitis, rubella, pneumonia (Haemophilus Influenza Type B) and Pneumococcal diseases (Pneumococcal Pneumonia and Meningitis).**
- Hepatitis B and Pneumococcal diseases was added to the UIP in 2007 and 2017 respectively

The recommendations to introduce these new vaccines have been made after numerous scientific studies and comprehensive deliberations by the **National Technical Advisory Group of India (NTAGI)**, the country's apex scientific advisory body on immunization.

DEEP SEA PORT PROJECT OF MYANMAR

China has signed a multi-billion-dollar deal with Myanmar to build a port at a strategic town along the coast of the Bay of Bengal.

HIGHLIGHTS

- It will build the deep-sea port project in Kyaukpyu town after negotiations dragged for years.
- Under the framework agreement, China will fund 70% of the investment for the project and Myanmar will pitch in the remaining 30%.

- This new framework agreement marks step for the China proposed Belt and Road Initiative (BRI).
- China is also developing deep water strategic Gwadar port in Pakistan in the Arabian Sea which faces the Mumbai coast
- It has also acquired Sri Lanka's Hambantota port on debt swap in the Indian Ocean.

NATIONAL RIVER GANGA (REJUVENATION, CONSERVATION & MANAGEMENT) BILL, 2018

The government is planning to introduce the National River Ganga (Rejuvenation, Conservation and Management) Bill, 2018 in the upcoming parliament winter session.

HIGHLIGHTS

- The bill proposed to ban the construction of jetties, ports or "permanent hydraulic structures" in the Ganga, unless permitted by the National Ganga Rejuvenation Authority.
- It proposes to create a management structure that will supervise the health of the 2,500-kilometre long Ganga which, the draft Bill defines, as 'India's national river.'
- The Bill lays down a host of restrictions to ensure the "uninterrupted, ecological flow" of the river. Currently, a host of dams in the upper stretches of the river lead to the river's flow being obstructed.
- The proposed legislation specifies that "unauthorized" activities that cause obstruction or discontinuity of water in the River Ganga due to engineered diversion of water or stoppage of water. Carrying out such activities are liable to a prison term of 3 years or fines upto 50 crore, or both.
- The Armed Ganga Protection Corps (GPC) personnel will be provided by the ministry of home affairs and will be deployed by the National Ganga Rejuvenation Authority.
- The GPC personnel will have power to arrest those who pollute the river covering offences like obstructing the flow of the river to commercial fishing.

The Bill has listed out a list of offences marked as cognizable which includes:

- Construction activities causing obstruction in the river.
- Withdrawal of ground water for industrial or commercial consumption from the land fronting the river and its tributaries.
- Commercial fishing or aqua culture in the river and its tributaries.
- Discharging untreated or treated sewage into the river.

INDIA - NEPAL

The first passenger train to run on broad gauge between India and Nepal will run from December this year.

FACTS

- The train will run from Jayanagar in Bihar to Kurtha in Dhanusa district in Janakpur Zone of south-eastern Nepal, which is a 34 km stretch.
- No visa will be required for Indian and Nepalese nationals crossing the border through this stretch.

"QUAD" MEET

The "Quad" countries, namely India, US, Japan and Australia, will hold their next meeting on the side lines of the 13th East Asia Summit at Singapore in mid-November, with the grouping keen to step-up maritime security and disaster relief initiatives as well as economic development projects in the critical Indo-Pacific region.

QUAD

- Regional coalition known as the 'Quad', the quadrilateral formation includes **Japan, India, United States and Australia.**
- All four nations find a common ground of being the democratic nations and common interests of unhindered maritime trade and security.

- The idea was first mooted by Japanese Prime Minister Shinzo Abe in 2007. However, the idea couldn't move ahead with Australia pulling out of it.
- It has been recently revived and is being viewed as response to increased Chinese economic and military power.

OBJECTIVES

- To tackle challenges of terrorism and proliferation.
- It is a development and collaborative initiative with the objective of promoting stability and maritime alliance in IOR, trade and commerce.
- Ensure freedom of navigation in Indo-Pacific region and maintain its hegemony in India Ocean where China is forming string of pearls.

NEED

- The quadrilateral comes in the backdrop of growing Chinese assertiveness in the South China Sea.
- It has also raised concerns regarding freedom of trade and navigation through the waters of the south and East China seas.
- To counter hegemony of China in the region.
- It will increase connectivity in the Indonesian Pacific region and provide economic opportunity.
- It will provide safety to international maritime trade routes like Malacca strait.

BORDER AREA DEVELOPMENT PROGRAMME

The Centre has released more than Rs. 113 crore to Assam, Nagaland, Sikkim, Gujarat, Rajasthan and Uttarakhand under the Border Area Development Programme (BADP).

BORDER AREA DEVELOPMENT PROGRAMME

- The Border Area Development Programme (BADP) has been implemented through 17 States (viz. Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal) which constitute the International Land Borders.
- The main objective of the BADP is to meet the special developmental needs and well-being of the people living in remote and inaccessible areas situated near the international border and to saturate the border areas with the entire essential infrastructure through convergence of Central/ State/ BADP/ Local schemes and participatory approach.
- The funds under BADP are provided to the States as a 100% non-lapsable Special Central Assistance. The programme is supplemental in nature and the budget allocation for the financial year 2015-16 is Rs.990 crore.
- The BADP schemes include construction of primary health centres, schools, supply of drinking water, community centres, connectivity, drainage to enable sustainable living in border areas.
- It also covers schemes or activities relating to Swachhta Abhiyan, skill development programmes, promotion of sports activities in border areas, promotion of rural tourism, border tourism, protection of heritage sites, construction of helipads in remote and inaccessible hilly areas, which do not have road connectivity.

NUCLEAR TRIAD

India has declared that its nuclear triad, stated in its nuclear doctrine, is operational after indigenous ballistic missile nuclear submarine INS ARIHANT recently achieved a milestone by conducting its first deterrence patrol.

The submarine recently returned from its first deterrence patrol, completing the establishment of the country's survivable nuclear triad.

INS ARIHANT is now capable of prowling the deep seas carrying ballistic missiles equipped with nuclear warheads.

SIGNIFICANCE

This places India in the league of the few countries that can design, construct and operate **ship submersible ballistic nuclear (SSBN)**.

Given India's stated position of 'No-First-Use' (NFU) in launching nuclear weapons, the ship submersible ballistic nuclear (SSBN) is the most dependable platform for a second-strike. Because they are powered by nuclear reactors, these submarines can stay underwater indefinitely without the adversary detecting it. The other two platforms — land-based and air-launched are far easier to detect.

NO FIRST USE

In 1998, India conducted nuclear tests under Pokhran-II and in 2003, it declared its nuclear doctrine based on credible minimum deterrence and NFU policy while reserving the right of massive retaliation if struck with nuclear weapons first.

No first use (NFU) refers to a pledge or a policy by a nuclear power not to use nuclear weapons as a means of warfare unless first attacked by an adversary using nuclear weapons. Earlier, the concept had also been applied to chemical and biological warfare.

India first adopted a "No first use" policy after its second nuclear tests, Pokhran-II, in 1998. In August 1999, the Indian government released a draft of the doctrine which asserts that nuclear weapons are solely for deterrence and that India will pursue a policy of "retaliation only".

The document also maintains that India "will not be the first to initiate a nuclear first strike, but will respond with punitive retaliation should deterrence fail" and that decisions to authorise the use of nuclear weapons would be made by the Prime Minister or his 'designated successor(s)'.

INS ARIHANT

- INS Arihant is the first of five nuclear missile submarines planned for induction.
- It is to be equipped with K 15 (or BO-5) shortrange missiles with a range of over 700 km and the K 4 ballistic missile with a range of 3,500 km.
- At present, the only nuclear - powered platform in service is the INS Chakra, a Akula class SSN on lease from Russia.
- The induction of INS Arihant marks the completion of India's nuclear triad.
- A nuclear triad refers to the nuclear weapons delivery via land, air and sea i.e. land-based intercontinental ballistic missiles (ICBMs), strategic bombers, and submarine-launched ballistic missiles (SLBMs).

SHAKTI

Indian Institute of Technology Madras (IIT Madras) researchers have designed India's first indigenous microprocessor called 'Shakti'.

SHAKTI

- It is aimed at developing industrial-grade microprocessors and other components of the microprocessor ecosystem.
- It was designed, developed and booted by **IIT Madras** with microchip fabricated in ISRO's Semi-Conductor Laboratory at Chandigarh.
- It has been developed under project partly funded by **Ministry of Electronics and Information Technology (MeitY)**, as part of two-decade-old efforts to develop indigenous microprocessors.

- The microprocessor will reduce dependency on imported microchips especially in communication and defence sectors and thus eliminate risk of cyber-attacks. It can be used in mobile computing, wireless and networking systems.
- It may also provide power to mobile phones, smart meters and surveillance cameras.

BAL GANGA MELA

National Mission for Clean Ganga (NMCG) in partnership with HCL Foundation and German development agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) had organized “Bal Ganga Mela” at HCL’s Noida campus on November 4, 2018.

The Mela was organized with the objective to create awareness among school children on the importance of water in general and rivers in particular, so that they understand the importance of unpolluted, clean water and water security. Also, to foster respect for the natural environment and motivate children to become ambassadors of change, who influence and motivate others towards river rejuvenation and water conservation.

NMCG

- The National Mission for Clean Ganga (NMCG) is the implementation wing of National Ganga Council which was set up in October 2016 under the River Ganga (Rejuvenation, Protection and Management) Authorities order 2016. The order dissolved National Ganga River Basin Authority.
- NMCG has a two-tier management structure and comprises of Governing Council and Executive Committee.
- Both of them are headed by Director General, NMCG. Executive Committee has been authorized to accord approval for all projects up to Rs.1000 crore.

OZONE LAYER

A new UN report has unveiled that ozone layer is finally beginning to heal from all the damages caused by anthropogenic means.

BACKGROUND

- Scientists across the world have raised the alarm about the impact of chlorofluorocarbons (CFCs) on ozone layer in the 1980s.
- In 1987, countries around the world agreed in the Montreal Protocol to phase out CFCs and businesses came up with replacements for spray cans and other forms of the harmful chemicals.
- As a result of it, the upper ozone layer above the Northern Hemisphere should be completely restored in the 2030s.

HIGHLIGHTS

The study has confirmed the phenomenon by mapping the chemical composition of the atmosphere. The study revealed that chlorine levels declined by 0.8% each year between 2005 and 2016 and speculates that it could be the effect of the worldwide ban on the use of CFC. Previous research had hinted at the decrease in the depletion of ozone layer. Scientists believe that the ozone layer would fully recover by 2080.

Depletion of ozone is due to many factors, the most dominant of which is the release of chlorine from CFCs (Chlorofluorocarbons) which destroys the ozone. CFCs are released by products such as hairsprays, old refrigerators etc.

OZONE LAYER

A layer of ozone envelops the Earth and keeps damaging ultraviolet, or UV, radiation from reaching living things on the planet’s surface. The ozone layer exists mainly in the stratosphere, a layer of the atmosphere that reaches from 10 to 50 kilometers (about 6 to 30 miles) above the Earth’s surface.

The ozone hole is a region of depleted layers of ozone above the Antarctic region, whose creation is linked to increased cases of skin cancer.

CFCs

Chlorofluorocarbons, or CFCs, are compounds made up of combinations of the elements chlorine, fluorine and carbon; aerosols, refrigerants and foams contain CFCs. When these CFCs enter the air, they rise up into the atmosphere to meet up with and destroy ozone molecules. First used in 1928, CFCs have since become more common as various other CFC compounds were created. Some of the better-known CFCs are the Freon compounds, which were used as cooling ingredients in refrigerators and air conditioners. CFCs have lifetimes from 50 to 100 years.

HOW CFC DESTROY OZONE

- Once in the atmosphere, CFCs drift slowly upward to the stratosphere, where they are broken up by ultraviolet radiation, releasing the chlorine that catalytically destroys ozone. The process is as follows:
- UV radiation breaks off a chlorine atom from a CFC molecule.
- The chlorine atom attacks an ozone molecule (O₃), breaking it apart and destroying the ozone.
- The result is an ordinary oxygen molecule (O₂) and a chlorine monoxide molecule (ClO).
- The chlorine monoxide molecule (ClO) is attacked by a free oxygen atom releasing the chlorine atom and forming an ordinary oxygen molecule (O₂).
- The chlorine atom is now free to attack and destroy another ozone molecule (O₃). One chlorine atom can repeat this destructive cycle thousands of times.

MONTREAL PROTOCOL

- The Montreal Protocol on Substances that Deplete the Ozone Layer has been recognized as the most successful international environment treaty in history.
- It is the only environmental treaty which enjoys universal ratification of 197 UN member countries.
- The protocol has been amended by Kigali Agreement which was signed by the member countries in its 28th Conference of Parties (CoP).
- Kigali agreement aims to phase out Hydro fluorocarbons (HFCs), a family of potent greenhouse gases by the late 2040s.
- The protocol and its amendments have banned the use of ozone destroying chemicals and the rate of ozone depletion seems to have slowed.
- Its implementation has not only led to the phase-out of around 98% of ozone depleting chemicals, but also averted more than 135 billion tonnes of carbon dioxide equivalent emissions.

ICGS VARAHA

It is a new Offshore patrol vessel (OPV) launched by the Indian Coast Guard (ICG). It is fourth in the series of 98 M OPVs designed and built indigenously by Larsen & Toubro (L&T).

HIGHLIGHTS

- It is fitted with advanced technology navigation and communication equipment, sensor and machinery. Its weaponry includes one 30 mm and two 12.7 mm guns with fire control system. It has been designed to attain maximum speed of 26 knots and has endurance of 5,000 nautical miles.
- It also equipped with an Integrated Bridge System (IBS), Automated Power Management System (APMS), Integrated Platform Management System (IPMS), and High Power External Fire Fighting (EFF) system.

CHINA & SAARC

Giving a boost to China's long standing demand, Pakistan recently said that it supported active participation of China at the platform of the South Asian Association for Regional Cooperation (SAARC).

BACKGROUND

China has a status of an observer state in South Asia, however an observer state can get involve with SAARC members on specific initiatives, but they do not have voting rights. China entered SAARC as an observer in 2005, supported by most member states.

INDIA'S CONCERN

- If China is given a greater role, India fears that its neighbours will come together to oppose the country's interests, particularly under the influence of Pakistan and China.
- India's neighbours are attracted to China, because of its greater economic resources, as also it has the potential to counter India. China's influence can be witnessed even in Nepal.
- To enhance strategic ties with Nepal, China has been investing heavily in that country; it has opened **land-port between Nepal and Tibet named as Kyirong** which will affect the regional strategic balance.
- China-Pakistan Economic Corridor (CPEC) strategically aims at providing links between the overland Silk Road and maritime Silk Road. Due to this project China becomes one of the major investors in Pakistan.

It has been agreed that China's entry in SAARC as a full-member can give a push to SAARC to grow as a regional bloc as China's global economic influence can help SAARC in international forum. But, growing alliances between China and Pakistan may work against India and which will hamper the regional progress. It has also been feared that China may block the projects which are both strategically and economically important for India.

PUBLIC CREDIT REGISTRY

The Reserve Bank has initiated steps to set up a wide-based digital Public Credit Registry (PCR) to capture details of all borrowers, including wilful defaulters and also the pending legal suits in order to check financial delinquencies.

The PCR will also include data from entities like market regulator SEBI, the Corporate Affairs Ministry and the Insolvency and Bankruptcy Board of India to enable banks and financial institutions to get a 360-degree profile of existing and prospective borrowers on a real-time basis.

PUBLIC CREDIT REGISTRY

- The PCR will be an extensive database of credit information for India that is accessible to all stakeholders
- The idea is to capture all relevant information in one large database on the borrower and, in particular, the borrower's entire set of borrowing contracts and outcomes.
- Generally, a PCR is managed by a public authority like the central bank or the banking supervisor, and reporting of loan details to the PCR by lenders and/or borrowers is mandated by law.
- The contractual terms and outcomes covered and the threshold above which the contracts are to be reported vary in different jurisdictions, but the idea is to capture all relevant information in one large database on the borrower, in particular, the borrower's entire set of borrowing contracts and outcomes.

The Reserve Bank of India (RBI) had formed a high-level task force on public credit registry (PCR) for India. The task force was chaired by **Y M Deosthalee**.

The task force has suggested the registry should capture all loan information and borrowers be able to access their own history. Data is to be made available to stakeholders such as banks, on a need-to-know basis. Data privacy will be protected.

ADVANTAGES

- A PCR can potentially help banks in credit assessment and pricing of credit as well as in making risk-based, dynamic and counter-cyclical provisioning.

- The PCR can also help the RBI in understanding if transmission of monetary policy is working, and if not, where are the bottlenecks.
- Further, it can help supervisors, regulators and banks in early intervention and effective restructuring of stressed bank credits.
- A PCR will also help banks and regulators as credit information is a 'public good' and its utility is to the credit market at large and to society in general.

CREDIT ENHANCEMENT TO NBFCs & HFCs

The Reserve Bank of India (RBI) has allowed banks to provide partial credit enhancement (PCE) to bonds issued by systemically important non-deposit taking non-banking financial companies (NBFCs) registered with the RBI and housing finance companies (HFCs) registered with the National Housing Bank.

The move is aimed at enhancing the credit rating of the bonds and enabling these NBFCs to access funds from the bond market on better terms. PCE is expected to help NBFCs and HFCs raise money from insurance and provident or pension funds who invest only in highly-rated instruments.

HIGHLIGHTS

- The tenure of these bonds shall not be less than three years and proceeds from them shall only be utilized to refinance existing debt.
- Banks shall introduce appropriate mechanisms to monitor and ensure that the end-use condition is met.
- The central bank has restricted the exposure of a bank through PCEs to bonds issued by each such NBFC or HFC to 1% of capital funds of the bank within the current single and group borrower exposure limits.
- Banks are allowed to provide PCE as non-funded subordinated facility in the form of a contingent line of credit to be used in case of shortfall in cash flows for servicing the bonds and thereby improve the credit rating of the bond issue.

CREDIT ENHANCEMENT

Credit enhancement means improving the credit rating of a corporate bond. For example, if a bond is rated BBB, credit enhancement, which is basically an assurance of repayment by another entity, can improve the rating to AA. This is done to provide an additional source of assurance or guarantee to service the bond.

RBI has now allowed banks to provide credit enhancement up to 20% of the total bond issue. This means banks (one or many together) can assure repayment of dues related to a bond issue up to 20% of the value. Other than banks, organisations such as India Infrastructure Finance Co. Ltd also provide this facility.

SWIFT

The US has announced that Washington wants the world-wide payment network to cut off its services to the entities that were affected by Iran sanctions and warned that otherwise SWIFT might be sanctioned as well.

The US reintroduced sanctions against Tehran that were earlier lifted under the Iran nuclear deal. These sanctions will affect the country's energy, banking, and shipping sectors.

SWIFT

- The **SWIFT (Society for Worldwide Interbank Financial Telecommunication)** is a global member-owned cooperative that is headquartered in Brussels, Belgium.
- It was founded in 1973 by a group of 239 banks from 15 countries which formed a co-operative utility to develop a secure electronic messaging service and common standards to facilitate cross-border payments.
- It carries an average of approximately 26 million financial messages each day. In order to use its messaging services, customers need to connect to the SWIFT environment.
- SWIFT does not facilitate funds transfer: rather, it sends payment orders, which must be settled by correspondent accounts that the institutions have with each other.

- The SWIFT is a secure financial message carrier — in other words, it transports messages from one bank to its intended bank recipient.
- Its core role is to provide a secure transmission channel so that Bank A knows that its message to Bank B goes to Bank B and no one else. Bank B, in turn, knows that Bank A, and no one other than Bank A, sent, read or altered the message en route. Banks, of course, need to have checks in place before actually sending messages.
- Messages sent by SWIFT's customers are authenticated using its specialised security and identification technology.
- Encryption is added as the messages leave the customer environment and enter the SWIFT Environment.
- Messages remain in the protected SWIFT environment, subject to all its confidentiality and integrity commitments, throughout the transmission process while they are transmitted to the operating centres (OPCs) where they are processed — until they are safely delivered to the receiver.

TURGA PUMPED STORAGE PROJECT

A Loan Agreement was recently signed between India and Japan on Japanese Official Development Assistance loan for the construction of Turga Pumped Storage (I) of Yen 29.442 Billion (Rs. 1817 crore approximately).

TURGA PUMPED STORAGE PROJECT

- The Turga Pumped Storage Project on Turga nala is a closed loop type Pumped Storage Project located in Purulia district of West Bengal.
- The Turga Pumped Storage Project envisages utilization of rainfall in the catchment of the Turga Nala in Ayodhya hills for peak power generation for a Pumped Storage type project development.
- The project envisages construction of Upper Dam across Turga Nala, a tributary of Subarnarekha river and a water conductor system with an underground Power House on the downstream of Upper Dam and a Lower Dam having intermediate catchment of 4.37 sq. km.
- The objective of the Project is to strengthen the capability to respond to fluctuation in supply and demand of power and to improve stability of the power supply by constructing the pumped storage facilities, thereby contributing to the Industrial Development and Living Standard Improvement in the State of West Bengal.

HEALTH OF WORLD OCEANS ASSESSMENT: IPCC

Scientists from the Intergovernmental Panel on Climate Change (IPCC) have released their assessment on the health of world oceans.

HIGHLIGHTS

- For each of the last 25 years, oceans had absorbed heat energy equivalent to 150 times the amount of electricity mankind produces annually. That is 60% higher than what previous studies showed.
- The world's oceans have absorbed 90% of the temperature rise caused by man-made carbon emissions.
- Oceans cover more than two thirds of the planet's surface and play a vital role in sustaining life on Earth.

Scientists focussed on two gases found naturally in the atmosphere — Oxygen and carbon dioxide. Both gases are soluble in water, but the rate at which water absorbs them decreases as it warms. By measuring atmospheric oxygen and CO2 for each year, scientists were able to more accurately estimate how much heat oceans had absorbed on a global scale.

AGNI I

India has successfully conducted the night trial of the indigenously developed nuclear capable Agni-I ballistic missile off the Odisha coast. The surface-to-surface missile test was test-fired as part of a user-trial from the Abdul Kalam Island off Odisha coast.

2nd generation biofuels are produced from **sustainable feedstock**. The sustainability of a feedstock is defined by its availability, its impact on greenhouse gas emissions, its impact on land use, and by its potential to threaten the food supply. No second-generation biofuel is also a food crop, though certain food products can become second generation fuels when they are no longer useful for consumption. Second generation biofuels are often called "**advanced biofuels.**"

3rd generation biofuels are biofuel derived from **algae**. These biofuels are given their own separate class because of their unique production mechanism and their potential to mitigate most of the drawbacks of 1st and 2nd generation biofuels.

4th generation biofuels are made using non-arable land. However, unlike third-generation biofuels, they do not require the destruction of biomass. This class of biofuels includes electro-fuels and photobiological solar fuels. Some of these fuels are carbon-neutral.

WORLD CITIES DAY 2018

World Cities Day is celebrated every year on October 31st.

Theme: "***Building sustainable and resilient cities***".

The Day is expected to greatly promote the international community's interest in global urbanization, push forward cooperation among countries in meeting opportunities and addressing challenges of urbanization, and contributing to sustainable urban development around the world.

UN HABITAT

- The United Nations Human Settlements Programme (UN–Habitat) is the United Nations agency for human settlements and sustainable urban development.
- It was established in 1978 as an outcome of the First UN Conference on Human Settlements and Sustainable Urban Development (Habitat I) held in Vancouver, Canada in 1976.
- It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. It is a member of the United Nations Development Group.
- The mandate of UN-Habitat derives from the Habitat Agenda, adopted by the United Nations Conference on Human Settlements (Habitat II) in Istanbul, Turkey, in 1996.
- The twin goals of the Habitat Agenda are adequate shelter for all and the development of sustainable human settlements in an urbanizing world.
- As an inter-governmental policy making and decision-making body, the Governing Council of UN-Habitat seeks to promote integral and comprehensive approach to human settlements, assist the countries and regions in addressing human settlement problems and strengthen cooperation among all countries on human settlement issue.
- UN-Habitat reports to the United Nations General Assembly.

TIGER CONSERVATION

A reportedly man-eater tigress named Avni or T1 was recently killed in October 2018 after a trail over 3 months by over 200 men with sniffer dogs, drones and trap cameras. The hunt also became a controversial topic as conservation of tigers is felt very important. For conservation of tigers in India, various measures have been taken by the Government over past few decades.

NATIONAL TIGER CONSERVATION AUTHORITY (NTCA)

- It was established in December 2005 by a recommendation of the Tiger Task Force.
- It aimed at reorganised management of Project Tiger.
- It was formed by an Amendment in year 2006 in the Wildlife Protection Act, 1972 (enacted for protection of plants and animal species) making it a statutory body.

- NTCA is under the chairmanship of the Minister for Environment and Forests.
- It has 8 expert members, 2 members elected by Lok Sabha (LS) and 1 by Rajya Sabha (RS). The Inspector General (Forests), in charge of Project Tiger, is the ex officio member secretary. (NTCA = 8 experts + 2 LS + 1 RS + IG Forests)
- The Authority lays down standards and guidelines for tiger conservation in the Tiger Reserves, National Parks and Sanctuaries.
- It provides information on protection measures including future conservation plan, tiger estimation, patrolling, etc.
- It facilitates and supports tiger reserve management through eco-development and people's participation.
- Safeguards for ensuring the agriculture, livelihood, etc of people living inside a forest or in and around a tiger reserve have been provided. The core and buffer areas are explained to avoid ambiguity.

PROJECT TIGER

- It was launched in 1972 by the Government of India.
- To protect and improve the tiger population in India, it has supported an intensive program of habitat protection and rehabilitation.
- A Tiger Protection Force has been set up to combat poachers
- Villagers are relocated to minimize human-tiger conflicts.
- All India tiger estimation is done once in every 4 years. The assessment is done using camera traps in a statistical framework based on the approval of Tiger Task Force.
- Smart patrolling protocols like M-STRIPES (Monitoring System for Tigers Intensive Protection and Ecological Status) that uses GPS (Global Positioning System) devices, software and Geographical Information System (GIS) is also used in some reserves.

TIGER RESERVES OF INDIA

- There are 50 tiger reserves in India like Jim Corbett (Uttarakhand), Kanha (Madhya Pradesh), Periyar (Kerala), Namdapha (Arunachal Pradesh), etc.
- These reserves are governed by Project Tiger which is administered by the NTCA.
- India has 70% of tigers in the world.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

- It is a multinational treaty to protect endangered plants and species.
- It was drafted as a result of resolution adopted in 1963 at a meeting of IUCN and came into force in 1975
- Although CITES is legally binding, it does not take the place of national laws.
- CITES secretariat is administered by UNEP which works closely with NGOs like TRAFFIC is a wildlife Trade Monitoring Network founded in 1979 by WWF and IUCN.
- It ensures that trade in wild plants and animals is not a threat to the conservation of nature.
- It has played a crucial role in improving international efforts for tiger conservation.
- It has put efforts to ban the trade of tigers.

BACKGROUND

Tiger populations which once ranged widely across Asia, has lost 93% of its historic range over the past 100 years. Its population has declined rapidly (from about 1 lakh at the start of the 20th century to estimated 3,890 worldwide) due to reasons like habitat destruction, habitat fragmentation and poaching. **It has been classified as endangered in the IUCN Red List.** Internationally, bodies like CITES and TRAFFIC have put their efforts for conservation of tigers. In India, initiatives like Project Tiger are important and efforts must be continued to improve their population further to conserve the ecological pyramid.

INDIA BASED NEUTRINO OBSERVATORY

National Green Tribunal (NGT) upheld the environmental clearance granted to the India-based Neutrino Observatory (INO), a major research facility proposed in Theni district of Tamil Nadu. While this removes all current legal hurdles in building the facility, there are still other obstacles to be overcome before work can begin on this project, which has been in planning since 2001.

CHALLENGES

The project has been mired in all kinds of trouble — litigation, public protests, opposition from NGOs and political parties, besides government apathy.

- It has had to move locations once, because the nearby Mudhumalai National Park had been declared a tiger reserve during the same time.
- Environmental clearance granted in 2011 for the second site, too, was put in abeyance by the NGT because the project was within 5 km of the Mathikettan Shola National Park in Idukki, and no application had been moved for the approval from the National Board of Wildlife.
- Fresh environmental clearance was given last March by the Expert Appraisal Committee (EAC) of the Ministry of Environment and Forest. This was challenged in the NGT again, which has now thrown out the challenge.
- The result of all these obstacles has been that work, originally scheduled to start in 2012, is yet to take off. The original timeline had envisaged experimental work starting from 2017, later advanced to 2020. It is now unlikely to begin before 2025, even if construction starts next year. Construction of the underground facility would take at least five years.
- The project cost, too, likely to escalate. The Union government had, in 2015, approved a budget of Rs 1,583 crore for the project. That budget was based on cost assessments done in 2012. It is estimated the project would now cost at least 25% more than that amount.

BACKGROUND

- The INO promises to be a one-of-its-kind facility to detect and study neutrinos.
- These are extremely tiny elementary particles that are omnipresent in universe but very difficult to detect because they pass seamlessly through all kinds of matter.
- Neutrinos carry no electric charge.
- Predicted in 1931, neutrinos were detected for the first time in 1959, and are now considered to be the second most abundant particle in the universe — after the photon, or light particle.
- Groups in many countries are carrying out research on neutrinos, believed to hold important clues to some of the basic questions on the universe. Research on neutrinos has led to award of the Nobel Prize in Physics in 2002 and 2015, and before that, in 1988 and 1995.
- Once built, INO would be the biggest research facility in India as reported earlier that the underground laboratory will be located nearly 1.5 km below the Earth's surface, where a giant neutrino detector is to be placed.

SECTION 66A OF IT ACT 2000

In 2015, the Supreme Court struck down Section 66A of the Information Technology (IT) Act, 2000, as unconstitutional. That decision, Shreya Singhal v. Union of India, was heaped with praise by domestic and foreign media alike.

But none of this stopped the police in Muzaffarnagar, Uttar Pradesh, from arresting and detaining 18-year-old Zakir Ali Tyagi in October 2017, for allegedly committing a crime under Section 66A — for posting some comments on Facebook. Mr. Tyagi's case is not alone. Media outlets have reported other instances where Section 66A has been invoked by the police, all of which points to an obvious, and serious, concern.

IT ACT 2000

The Information Technology (IT) Act, 2000 provides for legal recognition for transactions through electronic communication, also known as e-commerce. The Act also penalizes various forms of cyber-crime. The Act was amended in 2009 to insert a new section, Section 66A which was said to address cases of cyber-crime with the advent of technology and the internet.

SECTION 66A

Section 66(A) of the Act criminalises the sending of offensive messages through a computer or other communication devices. Under this provision, any person who by means of a computer or communication device sends any information that is:

- grossly offensive;
- false and meant for the purpose of causing annoyance, inconvenience, danger, obstruction, insult, injury, criminal intimidation, enmity, hatred or ill will;
- meant to deceive or mislead the recipient about the origin of such messages, etc, shall be punishable with imprisonment up to three years and with fine.

Over the past few years, incidents related to comments, sharing of information, or thoughts expressed by an individual to a wider audience on the internet have attracted criminal penalties under Section 66(A). This has led to discussion and debate on the ambit of the Section and its applicability to such actions.

FACTS

- **World's first AI news anchor debuts in China:** The world's first artificial intelligence (AI) news anchor made "his" debut at the ongoing fifth World Internet Conference in east China's Zhejiang province.
- **Earliest cave paintings of animal discovered in Indonesia, dating back 40,000 years:** The world's earliest-known cave painting of an animal has been discovered. On Borneo in Indonesia. It dates back to at least 40,000 years ago.
- A private bus service between Lahore in Pakistan and Kashgar in China has been launched.
- **Palau becomes first country to ban sunscreen to save coral reefs:** The Western Pacific nation of Palau has become the first country to ban many kinds of sunscreen, in a move to protect its coral reefs from chemicals that scientists say cause significant damage. Under the ban, which will take effect in 2020, "reef-toxic" sunscreen — defined as containing one of 10 prohibited chemicals, a list that could grow later — can be confiscated from tourists when they enter the country, and retailers who sell it can be fined up to \$1,000.
- **Government to set up National Sports Stadium for differently-abled in Meghalaya:** The centre has announced that a stadium of international standard for differently-abled persons will be set up in Meghalaya.
- **World's longest DNA sequence decoded:** A team of UK scientists have claimed the record for decoding the world's longest DNA sequence. The new holder of the trophy for world's longest DNA read is a team led by Matt Loose at Nottingham University. The scientists produced a DNA read that is about 10,000 times longer than normal, and twice as large as a previous record holder, from Australia.
- **Rashtriya Ekta Diwas was observed on 31st October across the nation. It marks the occasion of the birth anniversary of Sardar Vallabhbhai Patel.** The government, in 2015, decided to observe Sardar Patel Jayanti Day as Ekta Diwas. This occasion provides an opportunity to re-affirm the inherent strength and resilience of the nation to withstand the threats to its unity, integrity and security.
- **Union Cabinet has recently approved setting up of a Central Tribal University in Andhra Pradesh.** The decision was made according to the provision provided under the 13th Schedule to the Andhra Pradesh Reorganisation Act, 2014. The proposed university will come up after necessary amendments in the Central Universities Act.