

NEWS ANALYSIS

Issue I

For Civil Services Exams

June 1-15, 2018

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National affair and issues

Swachh Bharat Mission

Context: Sanitation coverage in rural India, under the Swachh Bharat Mission, has now risen to 85%. As per the data released by Ministry of Drinking Water and Sanitation, through mobilisation of rural communities, 7.4 crore toilets were built across rural India, and as an outcome, over 3.8 lakh villages and 391 districts were declared Open Defecation Free (ODF).

About Swachh Bharat Mission- Gramin:

- The Swachh Bharat Mission is the first sanitation programme in the country to measure outcomes (ODF) instead of output (toilets) alone.
- The aim of Swachh Bharat Mission (Gramin) is to achieve a clean and Open Defecation Free (ODF) India by 2nd October, 2019.

Objectives:

- To bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation.
- To accelerate sanitation coverage in rural areas to achieve the vision of Swachh Bharat by 2nd October 2019.
- To motivate communities to adopt sustainable sanitation practices and facilities through awareness creation and health education.
- To encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation.
- To develop, wherever required, community managed sanitation systems focusing on scientific Solid & Liquid Waste Management systems for overall cleanliness in the rural areas.

To create significant positive impact on gender and promote social inclusion by improving sanitation especially in marginalized communities.

Dam Safety Bill, 2018

Context: The Union Cabinet has approved the proposal for introduction of Dam Safety Bill, 2018 in the Parliament.

Highlights of the Bill:

- The Bill provides for proper surveillance,

inspection, operation and maintenance of all specified dams in the country to ensure their safe functioning.

- The Bill provides for constitution of a National Committee on Dam Safety which shall evolve dam safety policies and recommend necessary regulations as may be required for the purpose.
- The Bill provides for establishment of National Dam Safety Authority as a regulatory body which shall discharge functions to implement the policy, guidelines and standards for dam safety in the country.
- The Bill provides for constitution of a State Committee on Dam Safety by State Government.

Functions of the National Dam Safety Authority:

- It shall maintain liaison with the State Dam Safety Organisations and the owners of dams for standardisation of dam safety related data and practices.
- It shall provide the technical and managerial assistance to the States and State Dam Safety Organisations.
- It shall maintain a national level data-base of all dams in the country and the records of major dam failures.
- It shall examine the cause of any major dam failure.
- It shall publish and update the standard guidelines and check-lists for the routine inspection and detailed investigations of dams and appurtenances.
- It shall accord recognition or accreditations to the organisations that can be entrusted with the works of investigation, design or construction of new dams.
- It will also look into unresolved points of issue between the State Dam Safety Organisation of two states, or between the State Dam Safety Organisation of a State and the owner of a dam in that State, for proper solution.
- Further, in certain cases, such as dams of one State falling under the territory of another State, the National Authority shall also perform the role of State Dam Safety Organization thereby eliminating potential causes for inter-state conflicts.

Significance:

- It will help all the States and Union Territories of India to adopt uniform dam safety procedures which shall ensure safety of dams

and safeguard benefits from such dams. This shall also help in safeguarding human life, livestock and property.

- The Dam Safety Bill, 2018 address all issues concerning dam safety including regular inspection of dams, Emergency Action Plan, comprehensive dam safety review, adequate repair and maintenance funds for dam safety, Instrumentation and Safety Manuals. It lays onus of dam safety on the dam owner and provides for penal provisions for commission and omission of certain acts.

Need for a legislation:

There are over 5200 large dams in India and about 450 are under construction. Plus there are thousands of medium and small dams. Due to lack of legal and institutional architecture for dam safety in India, dam safety is an issue of concern. Unsafe dams are a hazard and dam break may cause disasters, leading to huge loss of life and property.

India among over 90 nations without paid paternity leave

Context: According to a new UNICEF analysis, India is among almost 90 countries in the world without national policies in place that ensure new fathers get adequate paid time off with their newborn babies.

Highlights of the report:

- Almost two-thirds of the world's children under one-year-old, nearly 90 million, live in countries where their fathers are not entitled by law to a single day of paid paternity leave.
- India and Nigeria, which have high infant populations, are among the 92 countries do not have national policies in place that ensure new fathers get adequate paid time off with their newborn babies.
- In eight countries across the world, including the United States which is home to nearly four million infants, there was no paid maternity or paternity leave policy.
- Other countries with high infant populations, including Brazil and Congo, all have national paid paternity leave policies, albeit offering relatively short-term entitlements.

Need for paternity leave:

- Evidence suggests that when fathers bond with their babies from the beginning of life, they are more likely to play a more active role in the child's development. Research also suggests

that when children positively interact with their fathers, they have better psychological health, self-esteem and life-satisfaction in the long-term.

- Also, positive and meaningful interaction with mothers and fathers from the very beginning helps shape children's brain growth and development for life, making them healthier and happier, and increasing their ability to learn.

Way ahead: Around the world, momentum for family-friendly policies is growing. For example, India has proposed a Paternity Benefit Bill for consideration in the next session of Parliament which would allow fathers up to three months of paid paternity leave. UNICEF has urged governments to implement national family-friendly policies that support early childhood development, including paid paternity leave, to help provide parents with the time, resources and information they need to care for their children.

Facts for Prelims:

- UNICEF has launched 'Super Dads' campaign which aims to break down barriers preventing fathers from playing an active role in their young children's development.

The campaign celebrates Father's Day – recognised in more than 80 countries in June – and focuses on the importance of love, play, protection and good nutrition for the healthy development of young children's brains.

'Inter Country Parental Child Removal Disputes Resolution Authority':

- The Committee has recommended that the Government may establish an 'Inter Country Parental Child Removal Disputes Resolution Authority'.
- Composition of the authority: The Authority may be chaired by a retired High Court Judge, with Members from Legal and Social sector background along with representatives from key Ministries.
- Functions of the authority: The authority has been envisaged to provide a one window solution in cases of inter country removal and retention of Children. The Authority may examine the inter country cases of removal and retention of children vis-a-vis the cultural context, merit of the case, and the best interest of the Child.

Need for a policy:

Over three crore Indians living abroad have cross-

border marriages. When such a diverse family unit breaks down, children suffer as they are dragged into an international legal battle between their parents. Inter-spousal child removal is one of the most unfortunate outcomes of such break ups. Children are “abducted” by one parent and taken to a country with a different culture. This can be traumatic as they are also cut off from the other parent.

The Hague Convention on the Civil Aspects of International Child Abduction (1980):

- The Hague Convention is a multilateral treaty whereby the contracting states will have to cooperate with each other in expeditiously sending back the runaway parent and the child to the country of the child’s ‘habitual residence’.
- It seeks to return children abducted or retained overseas by a parent to their country of habitual residence for the courts of that country to decide on matters of residence and contact.

The convention shall apply to any child, up to the age of 16 years who is a habitual resident of any of the contacting states.

Indecent Representation of Women (Prohibition) Act (IRWA)

Context: Based on the observations made by Parliamentary Standing Committee and recommendation made by the National Commission for Women on the basis of consultation with civil society groups and likeminded individuals, WCD has proposed amendments in IRWA keeping in mind the recent technological advancement in the field of communications such as social media platforms, over the top services etc.

Reforms proposed:

- Amendment in definition of term advertisement to include digital form or electronic form or hoardings, or through SMS, MMS etc.
- Amendment in definition of distribution to include publication, license or uploading using computer resource, or communication device or in.
- Insertion of a new definition to define the term publish.
- Amendment in section 4 to include that No person shall publish or distribute or cause to be published or cause to be distributed by any means any material which contains indecent

representation of women in any form:

- Penalty similar to that provided under the Information Technology Act, 2000.

Creation of new authority:

- Creation of a Centralised Authority under the aegis of National Commission of Women (NCW). This Authority will be headed by Member Secretary, NCW, having representatives from Advertising Standards Council of India, Press Council of India, Ministry of Information and Broadcasting and one member having experience of working on women issues.
- This Centralised Authority will be authorized to receive complaints or grievances regarding any programme or advertisement broadcasted or publication and investigate/ examine all matters relating to the indecent representation of women.

What necessitated this?

Reforms have been proposed keeping in mind the recent technological advancements. The need was felt to widen the scope of the law so as to cover such forms of media on one hand and to strengthen the existing safeguards to prevent indecent representation of women through any media form on the other. Hence, the Indecent Representation of Women (Prohibition) Amendment Bill, 2012 was introduced in Rajya Sabha December, 2012 which referred the Bill to Department related Parliament Standing Committee for consideration.

Badshahi Ashoorkhana

Context: Telangana government and Aga Khan Trust are working to restore Hyderabad’s 17th century Badshahi Ashoorkhana.

About Hyderabad’s 17th century Badshahi Ashoorkhana:

- The 400-year old Ashoorkhana was built by ***Muhammed Quli Qutub Shah***.
- ***It was a house of mourning***, where large congregations of Muslims gathered in memory of the martyrdom of Imam Hussain during the month of Muharram.
- ***The building consists of*** a Kaman, Naqqar Khana (where ceremonial drums are beaten), Niyaz Khana (where visitors are fed), Sarai Khana (place to rest), Abdar Khana (drinking water is stored), the chabutra (platform) and a guard room.
- During the rule of the Mughal Emperor Aurangzeb, in 1178 Hijri (about 1764 AD), the

Ashoorkhana was converted into a *bandikhana*. For 80 years, it was used as a stable where horses were kept, before it was restored as a place of worship by the then mutawalli Mir Nawazish Ali Khan.

- The eight wooden pillars were reconstructed and the alams were reinstalled. During this time, the main entrance, Bab-e-Faiz-e-Imam-e-Alamiyan, was also constructed.

Odisha starts health insurance scheme for journalists

Context: Odisha government has launched “Gopabandhu Sambadika Swasthya Bima Yojana” for working journalists. The health insurance scheme for working journalists will be implemented with effect from June 1, 2018.

About Gopabandhu Sambadika Swasthya Bima Yojana:

- Under the scheme, journalists from across the state will get health insurance coverage up to Rs 2 lakh.
- At least five members of a journalist’s family would be covered under the scheme.
- The scribes will get their health insurance card from the District Information and Public Relations Officer (DIPRO) in their respective districts.

Gopabandhu Das:

- Gopabandhu Das (1877–1928) was a social worker, reformer, political activist, journalist, poet and essayist from Odisha. He was popularly known as Utkalamani (Jewel of Utkal or Orissa).
- He won election to the Legislative Council that had been created in 1909 under the terms of the Morley-Minto Reforms.
- He became the first president of Utkal Pradesh Congress Committee in 1920, holding the post until 1928, and he welcomed Gandhi to the province in 1921.

Reform works:

- He started a discussion group, called Kartavya Bodhini Samiti (Duty Awakening Society), in which he and his friends considered social, economic and political problems.
- He established a school at Sakhigopala, near Puri.[1] Popularly known as Satyabadi Bakul Bana Bidyalaya, but called the Universal Education League by Das, it was inspired by the Deccan Education Society, operated in the gurukula tradition and aimed to impart a liberal

education on a non-sectarian basis, despite opposition from orthodox Brahmins.

- He was influenced by Swadeshi movement and took part in the non-cooperation movement.

He also launched and acted as editor for a short-lived monthly literary magazine titled Satyabadi from the campus of his school. Through this he was able to indulge his childhood aspirations to be a poet.

Article 35A

Context: The Centre has decided not to file any “counter-affidavit” on Article 35A, which has been challenged in the Supreme Court through a Public Interest Litigation (PIL) petition. The Supreme Court has scheduled further hearing for August 6.

What you need to know about Article 35A?

Article 35A is a provision in the Constitution that empowers the Jammu and Kashmir legislature to define permanent residents of the state. It was added through the Constitution (Application to Jammu and Kashmir) Order, 1954, issued under Article 370.

Article 35A empowers Jammu and Kashmir legislature to define “permanent residents” of the state along with their special rights and privileges. This Article has an intricate relationship with Article 370.

WHO ARE PERMANENT RESIDENTS?

Jammu and Kashmir Assembly defined Permanent Resident as a person who was a state subject on May 14, 1954 or who had been a resident of the state for 10 years and has “lawfully acquired immovable property in the state.”

A person who is not a permanent resident of Jammu and Kashmir is not allowed to buy or own properties in the state or vote in state Assembly election or contest election to the state Assembly. An outsider cannot get a job in the Jammu and Kashmir government.

Arguments against Article 35A:

The petition says Article 35 A is against the “very spirit of oneness of India” as it creates a “class within a class of Indian citizens”. Restricting citizens from other States from getting employment or buying property within Jammu and Kashmir is a violation of fundamental rights under Articles 14, 19 and 21 of the Constitution.

Also, the parliamentary route of lawmaking was bypassed when the President incorporated Article 35A into the Constitution. Article 368 (i) of the Constitution empowers only Parliament to amend

the Constitution.

What's the case now?

Attempts to undo Article 35A of the Indian Constitution would strike a fatal blow to the nationalists in the state. Kashmiris are apprehensive that such a move would open the sluice gates for a demographic transformation of the Valley. The J&K government is also concerned at the reluctance of the Union government to file a counter affidavit in the Supreme Court. Against the backdrop of the escalating protests in Kashmir, this issue could potentially be explosive.

Ganga Praharis

Context: A group of 427 trained volunteers, called Ganga Praharis, are reaching to each and every house in areas along river Ganga to educate them about the importance of protecting river's bio-diversity. They are spread over Ganga basin states of Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.

About Ganga Praharis:

Who are Ganga Praharis?

They are new grassroot-level volunteers to protect the bio-diversity of river Ganga. They are roped-in by Wildlife Institute of India (WII), Dehradun as part of the "Biodiversity Conservation and Ganga Rejuvenation" project being sponsored by National Mission for Clean Ganga (NMCG) under the aegis of the Namami Gange programme.

Skills:

Ganga Praharis are well trained in ecological monitoring of Ganga aqua life, plantation techniques, awareness creation and community mobilization. They are trained through a series of national, state and site level workshops in diverse skills such as ecological surveys, rescue and rehabilitation of aquatic species, awareness meetings, social interactions and green livelihood skills.

Roles and functions:

- The Ganga Praharis will be linked to various local environmental authorities, non-governmental stakeholders in their respective states and various other national, academic and research institutions for their capacity development.
- Not only do these Ganga Praharis performing the task of conserving the deteriorating biodiversity of river Ganga, they are also motivating other people to spread the clean Ganga message, thus, contributing in making

clean Ganga mission a mass movement.

- The Ganga Praharis will be the role models in inspiring other members of the community to join hands in the efforts for conservation of the biodiversity of river Ganga. Thus, each Prahari shall work on the model of 'Each One Make Ten'.

Institutions in News- 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.

The order envisages five tier structure at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga as below:

1. National Ganga Council under chairmanship of Hon'ble Prime Minister of India.
2. Empowered Task Force (ETF) on river Ganga under chairmanship of Hon'ble Union Minister of Water Resources, River Development and Ganga Rejuvenation.
3. National Mission for Clean Ganga(NMCG).
4. State Ganga Committees and
5. District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states.

Institutions in News- DRI:

- Directorate of Revenue Intelligence, formed in 1957, is the major intelligence agency which eradicates smuggling of drugs, gold, diamonds, electronics, foreign currency, counterfeit Indian currency, etc.
- The Directorate of Revenue Intelligence functions under the Central Board of Excise and Customs in the Ministry of Finance, Department of Revenue.
- The Directorate is run by officers from Central Excise and Customs. Though its early days were committed to combating smuggling in of gold, it has now tuned itself to the changing

nature of crimes in the field of narcotics and economic crimes.

OP Nistar:

What is it? It is an evacuation of Stranded Indians from Socotra, Yemen.

What happened? 38 Indian nationals were stranded on the Yemeni island of Socotra in the aftermath of cyclone Mekenu.

Changi base:

Context: Prime Minister Narendra Modi recently visited the Changi Naval Base in Singapore.

About Changi naval base: Changi Naval Base (CNB) is the latest naval facility of the Republic of Singapore Navy (RSN) and was built to replace Brani Naval Base.

Global Initiative on Academic Network (GIAN)

Context: In a bid to make Indian cities more sustainable, the NITI Aayog has launched a new course on 'Urban Analytics – Evaluating and Measuring Sustainability of Cities' at Indian Institute of Technology (IIT), Roorkee. **The course was launched under Global Initiative on Academic Network (GIAN).** The course will provide an understanding and analysis on the urbanisation and its impacts that would help in evaluating the conditions of sustainability in Indian cities.

What is GIAN program?

Global Initiative of Academic Networks (GIAN) in Higher Education was launched in 2015. It is a program of Ministry of Human Resource and Development.

Aim: GIAN aims at tapping the talent pool of scientists and entrepreneurs to engage with the institutes of higher education in India to augment the country's existing academic resources, accelerate the pace of quality reforms, and further strengthen India's scientific and technological capabilities.

GIAN is envisaged to achieve the following objectives:

- To increase the footfalls of reputed international faculty in the Indian academic institutes.
- Provide opportunity to our faculty to learn and share knowledge and teaching skills in cutting edge areas.
- To provide opportunity to our students to seek knowledge and experience from reputed International faculty.

- To create avenue for possible collaborative research with the international faculty.
- Develop high quality course material in niche areas, both through video and print that can be used by a larger body of students and teachers.
- To document and develop new pedagogic methods in emerging topics of national and international interest.

What needs to be done to make our cities sustainable?

There is a need to harness the potential of urban information system and urban planning for making Indian cities more sustainable. All stakeholders should come forward with innovative and contextual solutions for Indian cities and create a model of a "living lab" by adopting a rural agglomeration in a nearby area which will transform into a township in the near future.

Way ahead:

India is the global host of the World Environment Day 2018, where the focus is on Sustainability and achievement of Sustainable Development Goals including SDG 11 which has a goal to "Make cities and human settlements inclusive, safe, resilient and sustainable". Now, it is the responsibility of all the stakeholders involved to achieve this goal in a timely manner.

Centre notifies Cauvery authority

Context: Union government on Friday issued a notification for the Cauvery Water Management Authority

Background: On 16th February, 2018 the apex court had directed the government to form the authority within six weeks. The Supreme Court through its verdict marginally increased Karnataka's share of Cauvery water, reduced the allocation for Tamil Nadu and sought to settle the protracted water dispute between the two southern states.

Composition of Cauvery Water Management Authority:

It would comprise a chairman, eight members besides a secretary. Out of eight members, two each will be full-time and part-time members, while the rest four would be part-time members from states.

Mandate of Cauvery Water Management Authority:

- To monitor the storage, apportion shares, supervise operation of reservoirs and regulate water releases with assistance of the regulating authority.

- The authority has also been tasked to advise the states to take suitable measures to improve water use efficiency, by way of promoting micro-irrigation (drip and sprinkler), change in cropping pattern, improved agronomic practices, system deficiency correction and command area development.
- Cauvery Water Management Authority is also expected to look at regulated release of water by Karnataka, at the inter-state contact point presently identified as Billigundulu gauge and discharge station, located on the common border of Karnataka and Tamil Nadu.

Significance of notification:

- This would help to solve the long running conflict on distribution of Cauvery waters.
- It will make the management of Cauvery water scientific.

Bankim Chandra

Context: The Bharatiya Janata Party (BJP) in West Bengal is planning to celebrate the achievements of Bankim Chandra Chattopadhyay.

Bankim Chandra- important contributions:

- Bankim Chandra Chattopadhyay wrote the national song Vande Mataram.
- The 19th century author's novel Anandamath — which was set in the background of the Sanyashi Bidroho (rebellion of monks in late 18th century) — is considered to be one of key works on Bengal's nationalism.
- His first Bengali fiction is called 'Durgeshnondini' published in 1865.

He also wrote other famous novels like Kapalkundala in 1866, Mrinalini in 1869, Vishbriksha in 1873, Chandrasekhar in 1877, Rajani in 1877, Rajsimha in 1881 and Devi Chaudhurani in 1884. He brought out a monthly magazine called Bangadarshan in 1872.

Nalanda University

Context: The Union Cabinet has approved the proposal for withdrawal of Nalanda University (Amendment) Bill, 2013 pending in the Rajya Sabha.

Background:

The Nalanda University was established on the basis of a Joint Press Statement at the 4th East Asia Summit held in Thailand in October, 2009, which supported its establishment as a non-state, non-profit, secular and self-governing international institution. Subsequently, the Nalanda University Act, 2010 was passed by the Parliament and came

into effect from 25th November 2010.

Highlights of Nalanda University (Amendment) Bill, 2013:

- It establishes Nalanda University in Bihar as a result of decisions taken at the East Asia Summits.
- Under the Act, the University is a non-profit public-private partnership, supported by each member country as well as other sources. The Bill amends the Act to provide for the Government of India to meet the university's capital and recurring expenditure to the extent required.
- The powers of the University are amended to include the power to set up a consortium of international partners to meet the objectives of the University, and appoint persons working in any other University or academic institution, including those located outside India, as faculty of the University.
- The size of the Governing Board of the University is being increased to include two persons of eminence and two members from the academic faculty of the University. The Bill also makes provision for the appointment of Deans and Provosts.

Key facts:

- Nalanda stands out as the most ancient university of the Indian Subcontinent. It engaged in the organized transmission of knowledge over an uninterrupted period of 800 years.
- The historical development of the site testifies to the development of Buddhism into a religion and the flourishing of monastic and educational traditions.
- It was a major Mahavihara or a large Buddhist monastery that also doubled up as an important centre of learning from the 5th to 1200 AD in the erstwhile kingdom of Magadh.
- The construction of Nalanda university began in 5th century AD and flourished under the Gupta rulers. It came to an end in the 12th century when it was destroyed in 1193 AD by the invading Turkish army led by its commander Bakhtiar Khilji.
- UNESCO has declared Bihar's much awaited ancient site – the ruins of Nalanda Mahavihara – a World Heritage Site.

North Eastern Council

Context: The Union Cabinet has approved the

proposal of Ministry of Development of North Eastern Region (DoNER) for the nomination of the Union Home Minister as ex-officio Chairman of North Eastern Council (NEC). The Cabinet has also approved that Minister of State (Independent Charge), Ministry of DoNER would serve as Vice Chairman of the Council.

Under the new arrangement, Home Minister shall be the Chairman and Minister of DoNER as Vice Chairman, NEC and all the Governors and Chief Ministers of North Eastern States will be Members.

Benefits:

- This would provide a forum for discussing inter-state matters more comprehensively and also consider common approaches to be taken in future.
- NEC can now also perform the tasks undertaken by the various Zonal Councils to discuss such inter-State issues as drug trafficking, smuggling of arms and ammunition, boundary disputes etc.
- This repositioning of NEC will help it to become a more effective body for the North Eastern Region. The Council shall, from time to time, review the implementation of the projects/ schemes included in the project; recommend effective measures for coordination among the state Governments for these projects etc.

About NEC:

- NEC was established under the North Eastern Council Act, 1971 as an apex level body for securing balanced and coordinated development and facilitating coordination with the States.
- Subsequent to the Amendment of 2002, NEC has been mandated to function as a regional planning body for the North Eastern Area and while formulating a regional plan for this area, shall give priority to the schemes and projects benefiting two or more states provided that in the case of Sikkim, the Council shall formulate specific projects and schemes for that State.

New norms for College teachers

Context: The University Grants Commission (UGC) has brought out a new set of regulations to alter the conditions for recruitment and promotion of college and university teachers, so as to make universities more focussed on research and colleges on the teaching-learning process.

New norms:

- Research will no longer be mandatory for college teachers for promotion. However, university promotions will offer weightage to research done. College teachers will be graded on teaching rather than research. College teachers can still do research and earn higher grades for it.
- Other than research, college teachers can earn grades for other activities too — like social work, helping in adoption of a village, helping students in extra-curricular activities, contributing teaching material to Swayam, the MOOCS platform for online material.
- College teachers can become professors now. Till now, a college teacher could not rise above the rank of associate professor, the professor post being limited to university departments.
- To become an assistant professor in a college, the requirement remains the same: Ph.D or NET plus a master's degree. However, for promotion to the post of associate professor, a Ph.D will be mandatory even at the college level.
- Indians who had been awarded a doctoral degree from any of the top 500 global universities would be eligible to teach in Indian universities without the requirement of any equivalence certificate or NET as soon as the regulations are notified.

University Grants Commission (UGC):

- The University Grants Commission of India (UGC India) is a statutory body set up in accordance to the UGC Act 1956 under Ministry of Human Resource Development.
- It is charged with coordination, determination, and maintenance of standards of higher education. It provides recognition to universities in India and disburses funds to such recognized universities and colleges.

Uranium contamination

Context: Scientists have found widespread uranium contamination in groundwater from aquifers across 16 states in India, much above the WHO provisional standard for the country. The main source of uranium contamination was “natural,” but human factors such as groundwater table decline and nitrate pollution could be worsening the problem.

WHO prescribed limit:

The WHO has set a provisional safe drinking

water standard of 30 micrograms of uranium per litre, a level that is consistent with the U.S. EPA standards. However, uranium is not yet included in the list of contaminants monitored under the Bureau of Indian Standards' Drinking Water Specifications.

Main factors responsible for uranium contamination:

- When over-pumping of aquifers' groundwater occurs and their water levels decline, it induces oxidation conditions that, in turn, enhance uranium enrichment in the shallow groundwater that remains.
- While the primary source of uranium is geogenic (naturally occurring), anthropogenic (human caused) factors such as groundwater table decline and nitrate pollution may further enhance uranium mobilisation.
- Other factors include the amount of uranium contained in an aquifer's rocks; water-rock interactions that cause the uranium to be extracted from those rocks; oxidation conditions that enhance the extracted uranium's solubility in water; and the interaction of the extracted uranium with other chemicals in the groundwater, such as bicarbonate, which can further enhance its solubility.

What needs to be done?

- There is a need for revision of the current water quality monitoring program in India, evaluation of human health risks in areas of high uranium prevalence, development of adequate remediation technologies, and, above all, implementation of preventive management practices to address this problem.
- Including a uranium standard in the Bureau of Indian Standards' Drinking Water Specification based on uranium's kidney-harming effects, establishing monitoring systems to identify at-risk areas, and exploring new ways to prevent or treat uranium contamination will help ensure access to safe drinking water for tens of millions in India.

World Oceans Day- 8 June:

Context: World Ocean Day is celebrated every year on June 8th.

Action focus for 2018: preventing plastic pollution and encouraging solutions for a healthy ocean.

Background: The concept of a 'World Oceans

Day' was first proposed in 1992 at the Earth Summit in Rio de Janeiro as a way to celebrate our world's shared ocean and our personal connection to the sea, as well as to raise awareness about the crucial role the ocean plays in our lives and the important ways people can help protect it.

The UN General Assembly recognized the important contribution of sustainable development and management of the resources and uses of the oceans and seas to the achievement of international development goals, including those contained in the United Nations Millennium Declaration, and designated 8 June as World Oceans Day.

SDG: The Ocean Conference was convened to support the implementation of Sustainable Development Goal (SDG) 14 of the 2030 Agenda for Sustainable Development: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

International affair and issues

Global Peace Index 2018

Context: Australia-based Institute for Economics and Peace (IEP), world's leading think tank that develops metrics to analyse peace and quantify its economic value, has released the 12th edition of the Global Peace Index (GPI), or measure of global peacefulness.

Performance of India:

- India has moved up four places to the 137th rank among 163 countries. The improvement is due to a reduction in the level of violent crime driven by increased law enforcement. India was ranked 141 last year.
- India was also among the countries with the biggest decreases in the number of deaths, along with Sri Lanka, Chad, Colombia, and Uganda.

Global performance:

- Iceland remains the most peaceful country in the world, a position it has held since 2008. New Zealand, Austria, Portugal and Denmark also sit in the top five most peaceful rankings.
- Syria remains the least peaceful country in the world, a position it has held for the past five years. Afghanistan, South Sudan, Iraq

and Somalia comprise the remaining least peaceful countries.

State of world peace:

- Amid continuing social and political turmoil, the world continues to spend enormous resources on creating and containing violence but very little on peace.
- The countries that displayed the most significant growth in heavy weapons capabilities over the last 30 years are primarily in unstable regions where there are high tensions with neighbouring countries. These include Egypt, India, Iran, Pakistan, South Korea, and Syria.
- Overall, the global level of peace has deteriorated by 0.27% in the last year, marking the fourth successive year of deteriorations. Ninety-two countries deteriorated, while 71 countries improved.

The four most peaceful regions – Europe, North America, Asia-Pacific, and South America – all recorded deteriorations, with the largest overall deterioration occurring in South America, owing to falls in the safety and security domain, mainly due to increases in the incarceration rate and impact of terrorism.

U.K. Women Celebrate 100 Years of Voting Rights

Context: June 10, 2018 marked 100 years since the first women won the right to vote in Britain.

Background:

The Representation of the People Act, 1918 granted property-owning British women over age 30 the right to vote.

Vigilance commissioner

Context: Former NIA chief Sharad Kumar is the new vigilance commissioner for a term of four years or till he attains the age of 65.

About CVC:

- It is the apex vigilance institution. It was created via executive resolution (based on the recommendations of *Santhanam committee*) in 1964 but was conferred with statutory status in 2003. It submits its report to the President of India.
- **Composition:** Presently, the body consists of central vigilance commissioner along with 2 vigilance commissioners.
- **Appointment:** They are appointed by the President of India on the recommendations of a

committee consisting of Prime Minister, Union Home Minister and Leader of the Opposition in Lok Sabha (if there is no LoP then the leader of the single largest Opposition party in the Lok Sabha).

- **Term:** Their term is 4 years or 65 years, whichever is earlier.

Removal: The Central Vigilance Commissioner or any Vigilance Commissioner can be removed from his office only by order of the President on the ground of proved misbehavior or incapacity after the Supreme Court, on a reference made to it by the President, has, on inquiry, reported that the Central Vigilance Commissioner or any Vigilance Commissioner, as the case may be, ought to be removed.

G7 bloc

Context: 44th annual G7 Summit is being held in Quebec, Canada.

What is G7 Summit?

G7 Summit is an event conducted annually where world leaders from seven powerful economies of the world, US, Canada, UK, France, Germany, Japan and Italy come together to discuss burning issues happening around the globe. They, by mutual understanding, also form policies or figure out remedies for the concerned issue.

What is the 44th G7 Summit all about?

Every year few international issues which need to be tackled are taken into account and policies are formed around them. Canada has put forward the following 5 themes for this year's summit:

- Investing in growth that works for everyone.
- Preparing for jobs of the future.
- Working together on climate change, oceans and clean energy.
- Building a more peaceful and secure world.
- Advancing gender equality and impacting women's empowerment.

World Best Universities Ranking

Context: The 15th edition of the QS World University Rankings has been released by global higher education analysts QS Quacquarelli Symonds. QS ranks the world's top 1,000 universities, across 85 countries.

Being the only international ranking to have received International Ranking Expert Group (IREG) approval, the QS ranking is viewed as one of the three most-widely read university rankings in the world, along with Academic Ranking of World Universities and Times Higher Education

World University Rankings.

Global performers:

- Globally, Massachusetts Institute of Technology remains the top university for the seventh consecutive year.
- Stanford University, Harvard University and California Institute of Technology (Caltech) all retain their positions at second, third and fourth in the world respectively.
- From Asia, National University of Singapore (11) Nanyang Technological University, Singapore (12) and Tsinghua University, China (17) have been ranked the best.

Performance of Indian institutions:

- Indian Institute of Technology, Bombay (IIT-B), Indian Institute of Science (IISc), Bangalore, and Indian Institute of Technology, Delhi (IIT-D) are in the top 200.
- The number of Indian universities in the top 1,000 increased from 20 to 24. 9 Indian institutions have been individually ranked in the top-500 as against 6 last year.
- IIT-Bombay is now the top institute in the country rising 17 positions from 2018 to 162. Indian Institute of Science (IISc) Bangalore, rises 20 places to 170th.
- 17 of India's 24 ranked universities improved their rank for Academic Reputation, while 13 improved their rank for Employer Reputation.

Way ahead for India:

The rankings are an affirmation of faith in the premier Indian higher educational institutions. The Human Resource Development (HRD) ministry has been taking several steps to improve the global rankings, especially the world-renowned IITs by providing more funds and launching the Institutes of Eminence scheme under which institutes would be freed from regulatory framework. However, there's still work to be done beyond the top universities.

Facts for Prelims:

International Ranking Expert Group (IREG) emerged as a joint initiative of the UNESCO European Centre for Higher Education (UNESCO-CEPES) and a group of international ranking experts concerned with the quality of academic ranking.

UN Security Council

Context: The UN General Assembly has elected Belgium, the Dominican Republic, Germany, Indonesia and South Africa to serve as non-

permanent members on the Security Council for two years starting in January.

The five new members will replace Bolivia, Ethiopia, Kazakhstan, the Netherlands and Sweden on the council.

Selection of members:

There are 15 members on the UN Security Council, including the five permanent ones — Britain, China, France, Russia and the United States — and 10 non-permanent members, half of which are elected each year. Each candidate country needed to secure two thirds of the votes in order to clinch a seat.

About UNSC:

What is it?

- The United Nations Security Council (UNSC) is one of the organs of the United Nations and is charged with the maintenance of international peace and security.
- Its powers include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action through Security Council resolutions; it is the only UN body with the authority to issue binding resolutions to member states.

Members:

- The Security Council consists of fifteen members. Russia, the United Kingdom, France, China, and the United States—serve as the body's five permanent members. These permanent members can veto any substantive Security Council resolution, including those on the admission of new member states or candidates for Secretary-General.
- The Security Council also has 10 non-permanent members, elected on a regional basis to serve two-year terms. The body's presidency rotates monthly among its members.

Proposed reforms:

Reform of the United Nations Security Council (UNSC) encompasses five key issues: categories of membership, the question of the veto held by the five permanent members, regional representation, the size of an enlarged Council and its working methods, and the Security Council-General Assembly relationship. There is also a proposal to admit more permanent members.

Why India should be given a permanent seat in the council?

- India was among the founding members of

United Nations.

- It is the second largest and a one of the largest constant contributor of troops to United Nations Peacekeeping missions.
- Today, India has over 8,500 peacekeepers in the field, more than twice as many as the UN's five big powers combined.

India, since long time, has been demanding expansion of UNSC and its inclusion as permanent member in it. It has been a member of UNSC for 7 terms and a member of G-77 and G-4, so permanent membership is a logical extension.

Global Alliance to Eliminate Lymphatic Filariasis

Context: India is hosting the 10th meeting of Global Alliance to Eliminate Lymphatic Filariasis. India has highest burden of Lymphatic Filariasis and there is need of taking leadership role to Eliminate lymphatic filariasis.

Theme: Celebrating progress towards elimination: Voices from the field on overcoming programme challenges.

About Lymphatic Filariasis:

- LF or commonly known as Elephantiasis is one of the oldest and most debilitating neglected disease, which is currently endemic in 73 countries of the world, including India.
- LF is a devastating parasitic infection spread by mosquitoes. The parasites are thread-like worms (filariae) that develop in and then damage the human lymphatic system and associated tissues.
- It is usually contracted in childhood, often before the age of five. The lymphatic system is a network of vessels and specialised tissues that are essential to the maintaining the overall fluid balance and health of organs and limbs and importantly are a major component of the body's immune defence system.

Effects:

- The damage caused by the filaria or adult worms living in the lymphatic system upset this delicate fluid balance and fluid remains in the tissues causing chronic swelling usually of the lower limbs.
- The disease affects the poorest population in society, particularly those living in areas with poor water, sanitation and hygiene. LF does not kill the affected people, but may cause permanent disfigurement, reduced productivity and social stigma.

About GAELF:

It is an alliance of partners from 72 LF endemic national country programmes, NGOs, private sectors, academic and research institutes and international development agencies that assists WHO's Global Programme to Eliminate Lymphatic Filariasis.

Geo-Intelligence Asia – 2018

Context: The Eleventh edition of GeoIntelligence Asia 2018 is being held in New Delhi. It is organised by GeoSpatial Media and Communication with Directorate General of Information System as Knowledge Partners and Military Survey as Co-organisers.

Aim of the seminar: The seminar brings together the military, security officials including BSF and Police Forces, Government and industry together to examine the latest technology solutions and on the critical role of geospatial technology in military and security applications.

Theme: 'GeoSpatial: A Force Multiplier for Defence and Industrial Security'.

Geospatial Intelligence and its significance:

- Geospatial intelligence is a critical foundation for many aspects of defense and internal security. It offers the capability of monitoring, predicting and countering threats, while helping strategize and support various field operations.
- It facilitates multi-source information sharing and integration across agencies and organizations by providing a common framework on which other information is based.
- The use of big data, advanced geospatial analytics software and sophisticated imaging technologies from (very) high-resolution remote sensing satellites, UAVs and other sensors, enables seamless flow of information in pre-, real-time and post-combat operations.
- Real-time views and insights of impacted regions are key to improving emergency response times, especially in vulnerable areas such as a country's border.
- Geospatial data is invaluable to the border security operations, to deliver accurate situational awareness information, enabling quick and secure decision-making, while mitigating risks, and increasing national security.

IBSA summit

Context: 2018 IBSA Ministerial meet was recently held in Pretoria, South Africa. The outcome of this meeting was a document titled IBSA Declaration on South-South Cooperation. This document calls for contribution of each of the member of IBSA forum to contribute to greater understanding of development cooperation as a common endeavour of the global south.

About IBSA forum:

The establishment of IBSA was formalised by *the Brasilia Declaration* of 6 June 2003. IBSA is a coordinating mechanism amongst three emerging countries, three multi ethnic and multicultural democracies, which are determined to:

- Contribute to the construction of a new international architecture.
- Bring their voice together on global issues.
- Deepen their ties in various areas.

Significance of the platform:

The success of IBSA reflects an important demonstration effect. It demonstrates, most vividly, the desirability and feasibility of South-South cooperation beyond the conventional areas of exchange of experts and training. IBSA success in contributing to discourse on global issues also shows the importance of engaging with the countries of the South.

Sanchi Stupa of India and Pho Minh Pagoda of Viet Nam

Context: Cabinet approves MoU between India and Viet Nam on Joint issue of postage stamp. Joint Issue depicts Sanchi Stupa of India and Pho Minh Pagoda of Viet Nam.

About Sanchi Stupa:

- ***When was it built:*** Commissioned in 3rd century BCE, Expansion/ additions/restoration works/ made in different periods.
- ***Who built it:*** Commissioned by Emperor Ashoka of the Maurya Dynasty.
- ***Where is it located:*** Located 46 km north-east of Bhopal, the capital city of Madhya Pradesh, India.
- ***Architectural Style:*** Buddhist Art and Architecture.
- ***Other facts:*** It is a UNESCO World Heritage Site.

About Pho Minh Pagoda:

- The pagoda was originally built during the Ly Dynasty and later expanded in 1262 during the Tran Dynasty.

It was a place for high-ranking mandarins and the aristocracy of the Tran Royal Court to worship and lead their religious life.

International Air Transport Association (IATA)

Context: International Air Transport Association (IATA) recently castigated India for taxing international tickets, as it asked governments to facilitate the growth of worldwide connectivity by avoiding creeping re-regulation, maintaining the integrity of global standards and addressing a capacity crisis.

Background:

The government had announced the implementation of the GST from July 1, 2017. The tax covers airline products and services including tickets, ancillary, change, refund and other products and fees.

About IATA:

What is it? The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 280 airlines or 83% of total air traffic. Formed in April 1945, it is the successor to the International Air Traffic Association, which was formed in 1919.

What it does? IATA supports airline activity and helps formulate industry policy and standards. It also provides consulting and training services in many areas crucial to aviation.

Headquarters: It is headquartered in Montreal, Quebec, Canada with Executive Offices in Geneva, Switzerland.

PM's Singapore visit:

- PM Modi hailed Singapore as a strategic partner of India.
- India and Singapore agreed to deepen their economic and defense ties as they signed 8 agreements including an agreement on logistic cooperation's.
- The two countries signed an implementation agreement between their navies on mutual coordination, logistics and services support for visits of naval ships, submarines and naval aircraft including ship borne aviation assets.
- India has formalised a Mutual Recognition Agreement (MRA) in nursing with Singapore which would allow nurses trained in seven

nursing institutions across India to gain employment in the South-East Asian country.

- India and Singapore recently concluded the second review of Comprehensive Economic Cooperation Agreement (CECA).

PM's Shangri-La Dialogue address

Key points:

- **Singapore is our springboard to ASEAN:**

Singapore, for centuries has been a gateway for India to the broader east. We have a growing political, economic and defence ties with each Southeast Asian country.

- **India and China must work together:**

With trade between both the countries growing, Indo-China cooperation is expanding. We have displayed maturity and wisdom in managing issues and ensuring a peaceful border. There is growing intersection in our international presence.

- **Global transit routes must be peaceful**

The Indian Ocean has shaped much of India's history. It now holds the key to our future. The ocean carries 90 per cent of India's trade and energy sources. It is also the lifeline of global commerce. India's vision for the Indo-Pacific region is a positive one and it has many elements.

India stands for a free, open, inclusive Indo-Pacific region, which embraces us all in a common pursuit of progress and prosperity. It includes all nations in this geography as also others beyond who have a stake in it.

- **Globalisation key to development**

This is a world of inter-dependent fortunes and failures. No nation can shape and secure it on its own. It is a world that summons us to rise above divisions and competition to work together.

- **Equal access as a right**

The Prime Minister also called for equal access as a right under international law to the use of common spaces on sea and in the air that would require freedom of navigation, unimpeded commerce and peaceful settlement of disputes in accordance with international law.

Science & Technology

Fortified rice

Context: The government is planning to provide

fortified rice (enriched with essential vitamins and minerals) to all the poor under National Food Security Act (NFSA) across the country, which would cost about Rs 12,000 to Rs 14,000 crore annually. To begin with the scheme is likely to cover the 115 'aspirational' districts across the country. The proposal is being prepared with the support of Niti Aayog under the National Nutrition Mission.

What is Rice Fortification?

Fortification is the practice of deliberately increasing the content of an essential micronutrient, i.e. vitamins and minerals (including trace elements) in a food, so as to improve the nutritional quality of the food supply and provide a public health benefit with minimal risk to health. Rice fortification is the practice of increasing the content of essential micronutrients in rice and to improve the nutritional quality of the rice.

Why Rice Fortification?

- Rice is the world's most important staple food. An estimated 2 billion people eat rice every day, forming the mainstay of diets across large of Asia and Africa.
- Historians have found evidence of rice being eaten in parts of china some 8,000 years ago and it even has the same word as "food" in Chinese. In Bangladesh, home of 160 million people, rice is the main stable food with a daily average consumption of 416 grams per capita.
- Regular milled rice is low in micronutrients and serves primarily as a source of carbohydrate only. The fortification of rice is a major opportunity to improve nutrition.
- Fortified rice are contains Vitamin A, Vitamin B1, Vitamin B12, Folic Acid, Iron and Zinc.

Food fortification in India:

Food Safety and Standards Authority of India (FSSAI) has formulated a comprehensive regulation on fortification of foods namely 'Food Safety and Standards (Fortification of Foods) Regulations, 2016'. These regulations set the standards for food fortification and encourage the production, manufacture, distribution, sale and consumption of fortified foods. The regulations also provide for specific role of FSSAI in promotion for food fortification and to make fortification mandatory. This sets the premise for the national summit on fortification of food.

Atacama Large Millimeter/submillimeter Array

Context: Atacama Large Millimeter/submillimeter Array has uncovered convincing evidence for three young planets orbiting within a protoplanetary disk – or planet-forming disk – around an infant star. The star is called HD 163296. It's 330 light-years from Earth in the direction of the constellation Sagittarius.

About ALMA telescope:

The Atacama Large Millimeter/submillimeter Array (ALMA) is an international partnership of the European Southern Observatory (ESO), the U.S. National Science Foundation (NSF) and the National Institutes of Natural Sciences (NINS) of Japan, together with NRC (Canada), NSC and ASIAA (Taiwan), and KASI (Republic of Korea), in cooperation with the Republic of Chile.

- ALMA -the largest astronomical project in existence- is a single telescope of revolutionary design, composed of 66 high precision antennas located on the Chajnantor plateau, 5000 meters altitude in northern Chile.
- ALMA allows scientists to unravel longstanding and important astronomical mysteries, in search of our Cosmic Origins.

Mt Deotibba:

Why in News? An all women Naval mountaineering team recently summited Mount Deotibba.

About Mt Deotibba: Mt Deotibba is the second highest peak (6001M) in the Pir-Panjal range in Himachal Pradesh.

'EPIC' planet

Context: Scientists from ISRO have spotted for the first time a distant planet six times bigger than Earth and revolving around a Sun-like star about 600 light years away.

Key facts:

- The planet has been named EPIC 211945201b (or K2-236b). The host star is named EPIC 211945201 or K2-236.
- The planet is smaller in size than Saturn and bigger than Neptune. Its mass is about 27 times Earth's and six times that of Earth at radius. The scientists estimate that over 60% of its mass could be made up of heavy elements like ice, silicates and iron.
- With this discovery India has joined a handful of countries which have discovered planets around stars.

- The discovery was made using a PRL-designed spectrograph, PARAS, to measure and confirm the mass of the new planet.

About PARAS:

- PARAS is an echelle spectrograph (with resolution of 60,000) designed and developed by the members of the Astronomy and Astrophysics Division of PRL.
- The primary aim of PARAS is to search for planets around a sample of 100s of Dwarf main-sequence G,K,M type stars within a volume of 100pc using the Simultaneous ThAr calibration technique. It has wavelength coverage of 400nm to 680nm.

Cooperation in the peaceful uses of outer space

Context: The Union Cabinet was recently apprised of a Memorandum of Understanding (MoU) signed between India represented by the Indian Space Research Organization (ISRO) and Oman represented by the Ministry of Transport and Communications on Cooperation in the peaceful uses of outer space, in February, 2018 at Muscat (Oman's port capital).

- This MoU shall enable the following areas of cooperation such as, space science, technology and applications including remote sensing of the earth; satellite based navigation; Space science and planetary exploration; use of spacecraft and space systems and ground system; and application of space technology.

Value addition for Prelims and Mains- Treaty on Outer space:

Space exploration is governed by a complex series of international treaties and agreements which have been in place for years. The first and probably most important of them is the Outer Space Treaty.

The treaty was initially signed by the United States of America, the United Kingdom and the Soviet Union on January 27, 1967 and it came into effect from October 10, 1967. The treaty was initially called 'Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial bodies.

Treaty Terms:

The treaty forbids countries from deploying "nuclear weapons or any other kinds of weapons of mass destruction" in outer space. The term "weapons of mass destruction" is not defined, but

it is commonly understood to include nuclear, chemical, and biological weapons. The treaty, however, does not prohibit the launching of ballistic missiles, which could be armed with WMD warheads, through space.

The treaty's key arms control provisions are in Article IV. States-parties commit not to:

- Place in orbit around the Earth or other celestial bodies any nuclear weapons or objects carrying WMD.
- Install WMD on celestial bodies or station WMD in outer space in any other manner.
- Establish military bases or installations, test "any type of weapons," or conduct military exercises on the moon and other celestial bodies.

Polar Satellite Launch Vehicle

Context: In a big boost to the country's space programme, the Union Cabinet has given the financial approval of Rs 10,911 crore for the launch of 30 PSLV and 10 GSLV Mk III rockets in the next four years.

About PSLV:

- PSLV has emerged as a versatile launch vehicle to carry out Sun-Synchronous Polar Orbit (SSPO), Geo-synchronous Transfer Orbit (GTO) and low inclination Low Earth Orbit (LEO) missions.
- It is the first Indian launch vehicle to be equipped with liquid stages.
- With the recent successful launch of PSLV-C41, PSLV has completed three developmental and forty three operational flights and the last forty one flights have been successful.

Significance of PSLV:

The operationalisation of PSLV has made the country self-reliant in the launching capability of satellites for earth observation, disaster management, navigation and space sciences. The PSLV Continuation programme will sustain this capability and self-reliance in the launching of similar satellites for national requirements.

About GSLV Mk III rockets:

- GSLV Mk III is a three-stage heavy lift launch vehicle developed by ISRO. The vehicle has two solid strap-ons, a core liquid booster and a cryogenic upper stage.
- GSLV Mk III is designed to carry 4 ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO), which is about twice the

capability of GSLV Mk II.

- This is India's first fully functional rocket to be tested with a cryogenic engine that uses liquid propellants — liquid oxygen and liquid hydrogen.

Resource Efficiency Cell

Context: MoEFCC and TERI have entered a Memorandum of Understanding (MoU) to set up a resource efficiency cell in the Ministry.

Aims and objectives:

- The main objectives of the Cell are to provide a platform to mainstream resource efficiency in public policy.
- It aims to achieve this through coordinated thinking among the various relevant Ministries and agencies for promoting resource efficiency in the use of materials in the country.
- It also aims to ensure a 'systems' thinking based on materials, products and processes, apart from enabling the preparation of an overarching resource efficiency policy for India and coordinated sectoral policies and regulatory mechanisms.

Strategy on Resource Efficiency:

- NITI Aayog in collaboration with the European Union delegation to India have released the Strategy on Resource Efficiency. The strategy aims to promote resource efficiency in India.
- This strategy is the first policy document to emphasize resource productivity in the country. The Strategy emphasizes on Sustainable Public Procurement (SSP) as an action agenda which will be the market transformation tool to transform to a resource efficient economy.
- It is developed with the recommendations from the Indian Resource Efficiency Programme (IREP), launched by the Indian Ministry of Environment, Forests and Climate Change (MoEFCC) and Indian Resource Panel (InRP) in April 2017.

What is Resource Efficiency and why do we need it?

- Resource efficiency very simply put is making more with fewer materials. In practice, through a life-cycle approach, it leads to minimizing impact on environment & the associated societal burdens, transforming 'waste' into 'resources' fostering circular economy, and strengthening resource security.
- Resource Efficiency and Circular Economy are important goals and central principles for

achieving sustainable development. Sustainability is a global priority and SDGs commitment and 11th Five year plan also clearly enunciate importance of Resource efficiency (RE).

Way ahead:

India's large population, rapid urbanization and expanding industrial production have led to exploitation of available limited natural resources with concerns regarding resource depletion and future availability becoming more pronounced. Ensuring resource security requires and integrated, concerted and collaborative approach in order to fulfill the needs of a vast and growing population. Also, the environmental burdens emanating due to resource extraction, utilization and disposal, including land degradation, biodiversity loss, as well as air and water pollution remain of great concern, Enhancing resource efficiency (RE) and promoting the use of secondary raw materials (SRM) is a pertinent strategy to address these challenges and reduce dependence on primary resource.

Agni-5 Ballistic Missile

Context: India recently successfully test-fired its indigenously developed nuclear capable Long Range Ballistic Missile Agni-5 from Dr Abdul Kalam Island off the Odisha coast.

About Agni-5 Ballistic Missile:

- It is a surface-to-surface missile which can carry nuclear warhead weighing 1.5 tonnes to a distance of over 5,000 km and is the longest missile in India's arsenal capable of reaching most parts of China.
- The missile features many new indigenously-developed technologies, including the very high accuracy Ring Laser Gyro based Inertial Navigation System (RINS), and the most modern and accurate Micro Navigation System (MINS) which improves the accuracy of the missile.

Facts for Prelims:

Agni series: At present, India has in its armoury the Agni series — Agni-1 with 700 km range, Agni-2 with 2,000 km range, Agni-3 and Agni-4 with 2,500 km to more than 3,500 km range.

India joins the elite club: With this missile, India has joined an elite club of nations that possess the ICBM launch capability. Only the five permanent members of the United Nations Security Council – China, France, Russia, the United States and

Britain, along with Israel, have so far possessed such long-range missiles.

Significance of the Agni project:

The successful development of Agni proved India's capacity and technical expertise. This missile put India into an advanced stage of technology. Agni has not only technologically, scientifically and in the fields of security but also in international politics, put India on a noticeable platform. Agni missiles would be a game changer, transforming the way the world looks at India's defence arsenal.

Ensemble Prediction Systems (EPS)

Context: The India Meteorological Department (IMD) has commissioned two very high resolution (12 km grid scale) state-of-the-art global Ensemble Prediction Systems (EPS) for generating operational 10-days probabilistic forecasts of weather. The EPS involves the generation of multiple forecasts using slightly varying initial conditions.

About Ensemble forecasting:

- Ensemble forecasting provides localised predictions of a 12 km resolution compared to 23 kilometers in the earlier system.
- The new model has been developed jointly by Indian Institute of Tropical Meteorology and National Centre for Medium-Range Weather Forecasting.
- With this new model, India joins the US with a model that predicts with a 12 km resolution. Only the 'European Center for Medium Range Weather Forecast' has a, better, nine-kilometer resolution.

Need for better forecasts:

Better forecasts lead to better management agriculture and water resources. It also helps promote tourism, solar and wind energy.

AITUC

Context: Accusing the Centre of running an "anti-worker government", leading trade union body AITUC is planning to launch a nationwide campaign against the government.

About AITUC:

- The All India Trade Union Congress (AITUC) is the oldest trade union federations in India.
- It was founded in 1920 in Bombay by Lala Lajpat Rai, Joseph Baptista, N. M. Joshi, Diwan Chaman Lall and a few others.
- Until 1945 when unions became organised on party lines, it was the primary trade union

organisation in India. Since then, it has been associated with the Communist Party of India.

- AITUC is a founder member of the World Federation of Trade Unions.

Schemes & Committees

Deen Dayal Upadhyay Gramin Kaushal Yojana (DDU-GKY)

Context: Ministry of Shipping in association with Deen Dayal Upadhyay Gramin Kaushal Yojana (DDU-GKY), Ministry of Rural Development recently conducted a workshop on “Skill Development in the Port and Maritime Sector”.

Significance:

India is one of the leading suppliers of seafarers in the world and now want to be the leading supplier for all talent in the Port and Maritime sector. Skill Development in the Port & Maritime sector is an opportunity to improve India’s coastal areas, usher in port led prosperity and provide the world with skilled youth.

About DDU GKY:

- The Ministry of Rural Development (MoRD) announced the Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) Antyodaya Diwas, on 25th September 2014. DDU-GKY is a part of the National Rural Livelihood Mission (NRLM), tasked with the dual objectives of adding diversity to the incomes of rural poor families and cater to the career aspirations of rural youth.
- DDU-GKY is uniquely focused on rural youth between the ages of 15 and 35 years from poor families. As a part of the Skill India campaign, it plays an instrumental role in supporting the social and economic programs of the government like the Make In India, Digital India, Smart Cities and Start-Up India, Stand-Up India campaigns.

In order to ensure complete social and regional inclusion the following special schemes have been launched:

- Himayat: A special scheme for the youth (rural & urban) of Jammu & Kashmir.
- Roshni: A special initiative for the rural youth of poor families in 27 Left-wing Extremist (LWE) districts across 9 states.

Facts for Prelims- Center of Excellence in Maritime and Ship Building (CEMS):

- Under the Ministry of Shipping’s flagship Sagarmala Programme a world class Center of Excellence in Maritime and Ship Building (CEMS) is being set up in partnership with Siemens and Indian Register of Shipping (IRS).
- It will have campuses at Vishakhapatnam and Mumbai and will train 10,512 students per year.
- The CEMS aims to become an international nodal Centre in South Asia, attracting students from neighbouring countries like Sri Lanka, Bangladesh, Thailand, Malaysia and Indonesia for skill development in the Port and Maritime sector.

Deendayal Antyodaya Yojana – National Rural Livelihood Mission (DAY-NRLM)

Context: Ministry of Rural Development recently conferred National Awards on Best Performing Self Help Groups under DAY – National Rural Livelihood Mission.

National awards:

Conferring awards to best performing SHG and Village Organizations was initiated by DAY-NRLM in 2016-17. The National Awards to the Self-Help Groups (SHGs) are intended to provide public recognition to the outstanding performance of the community institutions and incorporate a sense of pride among the poor community members.

Significance of SHGs:

The SHGs are a perfect example of how livelihoods of households can transform through a collective approach, managed in line with core democratic and financial principles. The SHG has contributed to several community level activities for the common good. These include awareness promotion for constructing household toilets using SBM funds, environmental sanitation, liquid waste management and support for maintenance of village commons. SHG has demonstrated strong features of a progressive community based institution.

About Deen Dayal Antyodaya Yojana:

Deen Dayal Antyodaya Yojana – National Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. The Mission aims at creating efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable

livelihood enhancements and improved access to financial services.

Facts for Prelims:

- **SARAS Aajeevika Mela** is an annual event of DAY-NRLM and it aims to provide a platform to the rural artisans to showcase their skills and products and also develop market linkages for their products.

Aajeevika Grameen Express Yojana, under DAY-NRLM, aims to provide an alternative source of livelihoods to members of SHGs by facilitating them to operate public transport services in backward rural areas, as identified by the States. It also aims to provide safe, affordable and community monitored rural transport services to connect remote villages with key services and amenities for the overall economic development of the area.

Swajal Scheme

Context: The government recently launched Swajal schemes in 115 aspirational districts of the country. It will involve an outlay of Rs 700 crores through flexible-funds under the existing National Rural Drinking Water Programme (NRDWP) budget.

What is Swajal?

- Swajal is a community owned drinking water programme for sustained drinking water supply.
- Under the scheme, 90% of the project cost will be taken care by the Government and the remaining 10% of the project cost will be contributed by the community. The Operations and management of the project will be taken care by the local villagers.

About NRDWP:

The NRDWP was started in 2009, with a major emphasis on ensuring sustainability (source) of water availability in terms of potability, adequacy, convenience, affordability and equity. NRDWP is a Centrally Sponsored Scheme with 50: 50 fund sharing between the Centre and the States.

Facts for Prelims:

Water is a State subject and rural water supply has been included in the Eleventh Schedule of the Constitution among the subjects that may be entrusted to Panchayats by the States.

JANAUSHADHI SUVIDHA

Context: The government has launched the 'JANAUSHADHI SUVIDHA', the Oxo-biodegradable Sanitary Napkin, under the Pradhan

Mantri Bhartiya Janaushadhi Pariyojana (PMBJP). The affordable sanitary napkins will now become available at over 3600 Janaushadhi Kendras functional in 33 States/UTs across India.

About Janaushadhi Suvidha:

Jan Aushadhi Suvidha comes with a special additive, which makes Sanitary napkin biodegradable when it comes in contact with oxygen after being discarded. This would ensure 'Swachhta, Swasthya and Suvidha' for the underprivileged Women of India and go a long way in the achievement of vision of Affordable and Quality Healthcare for All.

Significance of the move: The average price of sanitary napkins available in the market today is around Rs. 8 per pad, whereas now with the launch of the SUVIDHA napkins at Rs. 2.50 per pad, this will go a long way in making the basic hygiene requirement aid for Women affordable for the underprivileged sections.

This is one of the most important requirement in ensuring the Health Security to that section of Women in India who still use unhygienic aids during menstrual period due to non-affordability of some of the popular brands of sanitary napkins available in the market today. Such unhygienic aids cause fungal infections, Reproductive Tract Infection, Urinary Tract Infection, Cervical cancer and also make women vulnerable to infertility.

Background:

According to the National Family Health Survey 2015-16, about 58% of women aged between 15 to 24 years use locally prepared napkins, sanitary napkins and tampons. Further, about 78% women in urban areas use hygienic methods of protection during menstrual period; only 48% women in rural areas have access to clean sanitary napkins.

About PMBJP:

'Pradhan Mantri Bhartiya Janaushadhi Pariyojana' is a campaign launched by the Department of Pharmaceuticals, Govt. Of India, to provide quality medicines at affordable prices to the masses through special kendra's known as Pradhan Mantri Bhartiya Jan Aushadhi Kendra. Pradhan Mantri Bhartiya Jan Aushadhi Kendra (PMBJK) have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.

Bureau of Pharma PSUs of India (BPPI) is the implementing agency of PMBJP. BPPI (Bureau of Pharma Public Sector Undertakings of India) has been established under the Department of

Pharmaceuticals, Govt. of India, with the support of all the CPSUs.

What is a Generic Medicine?

Generic medicines are unbranded medicines which are equally safe and having the same efficacy as that of branded medicines in terms of their therapeutic value. The prices of generic medicines are much cheaper than their branded equivalent.

Ayushman Bharat health scheme

Context: Around 20 states have so far signed memoranda of understanding to implement Ayushman Bharat National Health Protection Mission which aims to provide health protection to around 10 crore poor families in the country.

Highlights of the scheme:

Coverage: The scheme has the benefit cover of Rs. 5 lakh per family per year. To ensure that nobody is left out (especially women, children and elderly) there will be no cap on family size and age in the scheme. The benefit cover will also include pre and post-hospitalisation expenses.

Target: The target beneficiaries of the proposed scheme will be more than 10 crore families belonging to poor and vulnerable population based on SECC database. Benefits of the scheme are portable across the country and a beneficiary covered under the scheme will be allowed to take cashless benefits from any public/private empanelled hospitals across the country.

Role of state governments: State Governments will be allowed to expand AB-NHPM both horizontally and vertically. States will be free to choose the modalities for implementation. They can implement through insurance company or directly through Trust/ Society or a mixed model.

Council: For giving policy directions and fostering coordination between Centre and States, it is proposed to set up Ayushman Bharat National Health Protection Mission Council (AB-NHPMC) at apex level Chaired by Union Health and Family Welfare Minister.

Who is eligible?

- It will be an entitlement based scheme with entitlement decided on the basis of deprivation criteria in the SECC database.
- The different categories in rural area include families having only one room with kucha walls and kucharroof; families having no adult member between age 16 to 59; female headed households with no adult male member between age 16 to 59; disabled member and no

able bodied adult member in the family; SC/ST households; and landless households deriving major part of their income from manual casual labour.

- Also, automatically included families in rural areas having any one of the following: households without shelter, destitute, living on alms, manual scavenger families, primitive tribal groups, legally released bonded labour. For urban areas, 11 defined occupational categories are entitled under the scheme.

Implementation Strategy:

At the national level to manage, an Ayushman Bharat National Health Protection Mission Agency (AB-NHPMA) would be put in place. States/ UTs would be advised to implement the scheme by a dedicated entity called State Health Agency (SHA). They can either use an existing Trust/ Society/ Not for Profit Company/ State Nodal Agency (SNA) or set up a new entity to implement the scheme. States/ UTs can decide to implement the scheme through an insurance company or directly through the Trust/ Society or use an integrated model.

Benefits of the scheme:

This will lead to increased access to quality health and medication. In addition, the unmet needs of the population which remained hidden due to lack of financial resources will be catered to. This will lead to timely treatments, improvements in health outcomes, patient satisfaction, improvement in productivity and efficiency, job creation thus leading to improvement in quality of life.

Way ahead:

The scheme, if implemented properly could be a game changer by enhancing access to health care including early detection and treatment services by a large section of society who otherwise could not afford them. The identification of beneficiaries can be done by linking with Aadhar and similarly following up for services received and health outcomes achieved, thereby helping to monitor and evaluate the impact of the programme.

Ultimately, the scheme could help country move towards universal health coverage and equitable access to healthcare which is one of the UN Sustainable Development Goals or SDGs.

Pradhan Mantri Matru Vandana Yojana (PMMVY)

Context: After initial hiccups in implementing the maternity benefit programme Pradhan Mantri

Matru Vandana Yojana (PMMVY), the government has finally made some headway and provided cash incentives to nearly 23.6 lakh beneficiaries out of an estimated 51.6 lakh a year.

About PMMVY:

Pradhan Mantri Matritva Vandana Yojana (PMMVY), previously Indira Gandhi Matritva Sahyog Yojana (IGMSY), is a maternity benefit program run by the government of India.

- PMMVY is implemented by the Ministry of Women & Child Development in collaboration with State Governments.
- It is **Centrally Sponsored Scheme** under which the cost sharing ratio between the Centre and the States & UTs with Legislature is 60:40, for North-Eastern States & three Himalayan States, it is 90:10 and 100% Central assistance for Union Territories without Legislature.
- It is a **conditional cash transfer scheme** for pregnant and lactating women of 19 years of age or above for first two live births.
- It provides a **partial wage compensation** to women for wage-loss during childbirth and childcare and to provide conditions for safe delivery and good nutrition and feeding practices.
- In 2013, the scheme was brought under the **National Food Security Act, 2013** to implement the provision of cash maternity benefit of ₹ 6,000 stated in the Act.

Seva Bhoj Yojna

Context: The **Union Ministry of Culture** recently introduced a new scheme called ‘SevaBhojYojna’ to reimburse the central share of CGST and IGST on items for food/prasad/langar/bhandara offered free of cost by charitable religious institutions.

About Seva Bhoj Yojana:

The scheme seeks to reimburse the central government’s share of Central Goods and Services Tax (CGST) and Integrated Goods and Service Tax (IGST) on purchase of raw items such as ghee, edible oil, atta, maida, rava, flour, rice pulses, sugar and jaggery, which go into preparation of food/prasad/langar/bhandara offered free of cost by religious institutions.

The main objective of the scheme is to lessen the financial burden of such charitable religious institutions, which provide free of cost without any discrimination to the general public and devotees.

The charitable religious institutions including temples, gurudwara, mosque, church, dharmik

ashram, dargah, monasteries, which fulfill the following criteria are eligible for the grant:

- The institutions that have been in existence for at least five years before applying for financial assistance/grant.
- The institutions that serve free food to at least 5000 people in a month.
- The institutions covered under Section 10(23BBA) of the Income Tax Act or those registered as Society under Societies Registration Act (XXI of 1860) or as a Public Trust under any law for the time being in force of statutory religious bodies constituted under any Act or institutions registered under Section 12AA of Income Tax Act.

Lateral entry into Civil Services

Context: In an apparent bid to bring in expertise from the private sector individuals and infuse talent into the country’s bureaucracy, the government has invited “outstanding individuals” to join the government at the joint secretary level at the Centre.

- In this regard, the Department of Personnel and Training (DoPT) has invited applications for 10 senior level positions in the Departments of Economic Affairs, Revenue, Commerce and Highways among others.

Eligibility:

- The eligibility criteria includes “Individuals working at comparable levels in Private Sector Companies, Consultancy Organisations, International/Multinational Organisations with a minimum of 15 years’ experience” besides those working in central public sector undertakings, autonomous bodies, statutory organisations, research bodies and universities.
- The notification specifies a minimum age of 40 years and minimum qualification of graduation from a recognised university or institute while higher qualification will be an added advantage.
- The recruitment will be on contract basis for three to five years.

Background:

So far, these posts were held by joint secretary level officers, who were career bureaucrats, who join the service after passing UPSC exam. The post of joint secretary (JS) is crucial for policy making and implementation of government programmes and schemes, with most crucial decisions in ministries and departments taken by bureaucrats appointed JS.

Significance of this move:

Though the idea of lateral entry of private individuals into the administrative framework has been under discussion for some years now, this is the first move towards implementing the idea, which is generating curious debate on the pros and cons of the move.

Need for alter entry in civil services:

Shortfall in numbers: There is an overall 20% shortfall of IAS cadre officers alone in 24 state cadres. The Baswan Committee (2016) has shown how large states such as Bihar, Madhya Pradesh and Rajasthan have a deficit of 75 to over 100 officers and their unwillingness to sponsor officers to go to the Centre on deputation is understandable. Lateral induction is, therefore, a small step towards essential housekeeping in central government staffing and ought to be supported.

Target oriented: Outside talent from the private sector is more likely to be target-oriented, which will improve the performance of the government. Also, more competition will encourage career civil servants to develop expertise in areas of their choice.

Improved governance: The conventional wisdom on lateral entry is that it infuses fresh energy and thinking into an insular, complacent and often archaic bureaucracy. It enables the entry of right-minded professionals and the adoption of best practices for improving governance.

Challenges and concerns:

Disturbed balance: The proposal for lateral entry at senior decision-making levels, besides increasing the disconnect between policymaking and implementation, will also result in inequitable sharing of the benefits and burdens of government service, with permanent civil servants left to bear the burden of “humble” implementation and lateral entrants getting access to “glamorous” policymaking positions, without having roughed it out in remote and rural India in the rough and tumble of Indian democracy.

Deters the available talent: By suggesting a contract-based system for positions of joint secretary and above, the signal would be sent out that only mid-career positions would be within reach in about 15-18 years of service and there would be considerable uncertainty about career progression thereafter. Coupled with unattractive salary scales and non-entitlement to defined pension since 2004, this would become a potent

trinity to deter talented persons from aspiring to civil service careers.

Difficulty in assessing performance: Also, it is not easy to assess the performance of a secretary to the government, given the sheer complexity and amorphous nature of the job. The induction of lateral entrants would not by itself suffice for better performance orientation and enhanced accountability. It would be as difficult to measure the performance of lateral entrants as it would of career civil servants.

Hague Abduction Convention

Context: The government has clarified that it is not yet ready to sign the Hague treaty on inter-country abduction of children by parents fleeing a bad marriage. On the other hand, the government is planning to follow the Japan example and put safeguards in place before acceding to the Hague treaty.

Background:

There has been immense pressure from the U.S. on the government to sign the treaty though the government has long held the view that the decision could lead to harassment of women escaping marital discord or domestic violence.

Recommendations of the committee:

A Committee headed by Justice Rajesh Bindal, in April, had submitted its report on legal issues related to Inter-country removal & retention of children to the Ministry of Women and Child Development.

Atal Bhujal Yojana (ABHY)

Context: The World Bank has approved Atal Bhujal Yojana (ABHY). The scheme is to be implemented over a period of five years from 2018-19 to 2022-23, with World Bank assistance.

About Atal Bhujal Yojana:

It is a Rs.6000 crore Central Sector Scheme of the Ministry of Water Resources, River Development and Ganga Rejuvenation. The scheme aims to improve ground water management in priority areas in the country through community participation.

Priority areas:

The priority areas identified under the scheme fall in the states of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. These States represent about 25%

of the total number of over-exploited, critical and semi-critical blocks in terms of ground water in India. They also cover two major types of groundwater systems found in India – alluvial and hard rock aquifers- and have varying degrees of institutional readiness and experience in groundwater management.

Implementation of the scheme:

Funds under the scheme will be provided to the states for strengthening the institutions responsible for ground water governance, as well as for encouraging community involvement for improving ground water management to foster behavioural changes that promote conservation and efficient use of water. The scheme will also facilitate convergence of ongoing Government schemes in the states by incentivizing their focussed implementation in identified priority areas.

Expected outcomes:

The implementation of the scheme is expected to have several positive outcomes like better understanding of the ground water regime, focused and integrated community based approach for addressing issues related to ground water depletion, sustainable ground water management through convergence of on-going and new schemes, adoption of efficient water use practices to reduce ground water use for irrigation and augmentation of ground water resources in targeted areas.

Status of groundwater in India:

Central Ground Water Authority (CGWA) is regulating ground water development in 23 States/UTs. As per the assessment of dynamic ground water resources of country carried out jointly by CGWB and State Ground Water Departments, out of the total 6584 numbers of assessment units (Block/ Taluks/ Mandals/ watershed/ Firkka), 1034 units have been categorized as ‘Over-exploited’. This may be due to increase in population, rapid urbanization & industrialization and other related factors.

Economic issues

Odisha beach is Asia’s first to get ‘Blue Flag’ tag

Context: The Chandrabhaga beach on the Konark

coast of Odisha will be the first in Asia to get the Blue Flag certification.

Similar efforts:

Twelve more beaches in the country are being developed by the Society for Integrated Coastal Management (SICOM), an Environment Ministry’s body working for the management of coastal areas, in accordance with the Blue Flag standards.

About Blue flag project:

Launched in December 2017 by the Environment Ministry, the prime objective of the project is to enhance standards of cleanliness, upkeep and basic amenities at beaches. Under the project, each state or union territory has been asked to nominate a beach which will be funded through the ongoing Integrated Coastal Management Programme.

Criteria for certification:

To achieve the Blue Flag standards, a beach has to strictly comply with 33 environment and tourism-related conditions. The standards were established by the Copenhagen-based Foundation for Environmental Education (FEE) in 1985. For example- a beach must be plastic-free and equipped with a waste management system. Clean water should be available for tourists, apart from international amenities. The beach should have facilities for studying the environmental impact around the area.

Facts for Prelims:

- Society of Integrated Coastal Management (SICOM) has been established under the aegis of Ministry of Environment, Forests and Climate change.
- The main objective of the Centre is to promote research and development in the area of coastal management including addressing issues of coastal communities.

It also supports implementation of Integrated Coastal Zone Management (ICZM) activities in India and implements the World Bank assisted India ICZM Project.

What is PMI?

- The Nikkei India Manufacturing PMI fell to 51.2 in May of 2018 from 51.6 in the preceding month and below market consensus of 51.5.
- Growth in output, new orders and employment softened while business sentiment dropped from the previous month’s nine-month high.

- Also, purchasing activity declined for the first time in seven months, albeit only fractionally.
- Amid reports of greater demand from the international markets Indian manufacturers reported the strongest gain in new exports order since February.
- On the price front, a build-up of inflationary pressures re-emerged with input cost and output charge inflation rates at the strongest since February, due to the upswing in global oil prices.

What is PMI?

PMI or a Purchasing Managers' Index (PMI) is an indicator of business activity — both in the manufacturing and services sectors. It is a survey-based measure that asks the respondents about changes in their perception of some key business variables from the month before. It is calculated separately for the manufacturing and services sectors and then a composite index is constructed.

How is the PMI derived?

The PMI is derived from a series of qualitative questions. Executives from a reasonably big sample, running into hundreds of firms, are asked whether key indicators such as output, new orders, business expectations and employment were stronger than the month before and are asked to rate them

What are its implications for the economy?

The PMI is usually released at the start of the month, much before most of the official data on industrial output, manufacturing and GDP growth becomes available. It is, therefore, considered a good leading indicator of economic activity. Economists consider the manufacturing growth measured by the PMI as a good indicator of industrial output, for which official statistics are released later. Central b ..

What does it mean for financial markets?

The PMI also gives an indication of corporate earnings and is closely watched by investors as well as the bond markets. A good reading enhances the attractiveness of an economy vis-a-vis another competing economy.

Public credit registry

Context: To provide a single-point and real-time source for financial liabilities of a person or entity, the Reserve Bank of India has decided to set up a

public credit registry (PCR) in a modular and phased manner. The decision is based on the report of *RBI appointed task force led by YM Deosthalee*.

What is a PCR?

The PCR will be the single point of mandatory reporting for all material events for each loan, notwithstanding any threshold in the loan amount or type of borrower. The PCR will serve as a registry of all credit contracts, duly verified by reporting institutions, for all lending in India and any lending by an Indian institution to a company incorporated in India.

Need for a public registry:

- Credit information is spread over multiple systems in bits and pieces, making it difficult to get a comprehensive view of the financial liabilities of a person or entity. A PCR aims to remove information asymmetry to foster the level of access to credit, and to strengthen the credit culture in the economy.
- Also, a comprehensive credit information repository covering all types of credit facilities (funded and non-funded) extended by all credit institutions – commercial banks, cooperative banks, NBFCs, MFIs – and also covering borrowings from other sources, including external commercial borrowings and borrowing from market, is essential to ascertain the total indebtedness of a legal or natural person.

Benefits of having a PCR:

- 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.

Recommendations made by the task force:

- The PCR should be structured as an independent unit within the RBI so that it may be hived off to a separate non-profit at an appropriate time. It should eventually achieve

an autonomy and agility to move with the evolving environment and cater to the changing demands.

- The registry should facilitate linkage to related ancillary credit information available outside the banking system, such as corporate balance sheet information and GSTN, depending on the legal provisions.
- The registry should not include elements of judgment such as credit scoring services and had also called for strict privacy guidelines.

Present status:

- Currently, there are multiple granular credit information repositories in India, each with distinct objective and coverage. Within the RBI, CRILC is a borrower-level supervisory dataset with a threshold in aggregate exposure of Rs 5 crore. Also, there are four privately-owned credit information companies (CICs) in India.

The RBI has mandated all its regulated entity to submit credit information individually to all four CICs. CICs offer, based on this unique access to the credit data, value added services like credit scoring and analytics to the member credit institutions and to the borrowers.

Deocha-Pachami coal block:

Context: The Centre has handed over the Deocha-Pachami coal mines to the West Bengal government.

Facts:

- It is said to be second largest coal block in the world.
- The coal block is located in Birbhum district in West Bengal.

Power to auction non- coal mines: As per the new mining law — the Mines and Minerals (Development and Regulation) Amendment Act, 2015 — which came into effect from January 2015, the non-coal mines have to be auctioned by the respective state governments.

Working capital loan norms to be tightened

Context: The Reserve Bank of India (RBI) has proposed a minimum 40% loan component for working capital funding of ₹ 150 crore and above to bring in greater credit discipline and improve monetary transmission. This will come into effect from October 1 and will be increased to 60% from April 1, 2019.

Background:

Currently, working capital is mostly in the form of cash credit for which interest rate is reset once a year. Also, cash credit does not have a tight repayment schedule.

The proposed new norm will address the following issues:

- If there is a loan component then there will be a repayment schedule which will put pressure on borrowers to manage their liquidity.
- Since the loan component will have a fixed tenure, the reset clause can be invoked at the end of each tenure period.

Significance of the move:

By making it mandatory to have a loan component associated with all working-capital facilities, it will be easier to control the possible volatility which arises on account of cash credit limits.

Need for reforms:

The working capital requirements of borrowing entities are met by banks through a cash credit limit, which is a revolving facility. The cash credit facility places undue burden on the banks in managing their liquidity requirements, with corresponding repercussions for RBI's liquidity operations. Currently, banks do not charge any commitment fee and do not maintain any capital on the unknown portion of the cash credit and, thus, it is classified as an unconditionally cancellable facility, which does not have any risk weight under the marking rules.

Concerns:

While cash credit has its benefits, it also poses several regulatory challenges such as perpetual roll-overs, transmission of liquidity management from the borrowers to banks/RBI, hampering of smooth transmission of monetary policy, etc.

Credit enhancement fund

Context: The government is likely to launch a Rs 500-crore credit enhancement fund next month to facilitate infrastructure investments by insurance and pension funds.

About the proposed fund:

- The fund was first announced in the financial budget for fiscal year 2016-17.
- It will help in upgrading credit ratings of bonds issued by infrastructure companies and facilitate investment from investors like pension and insurance funds.

- The initial corpus of the fund, *to be sponsored by IIFCL* (India Infrastructure Finance Company), will be Rs 500 crore, and it will operate as a non-banking finance company.
- IIFCL will hold a 22.5% stake in the NBFC, while the Asian Infrastructure Investment Bank (AIIB) has offered to pick up a 10% stake. State-run SBI, Bank of Baroda and LIC will also have stakes in the firm.

Need for a dedicated fund:

- At present, only \$110 billion is being invested in infrastructure, against a requirement of \$200 billion, leading many analysts to classify India as an infrastructure deficit country.
- At present, the banking system does a bulk of infrastructure project financing and exposes itself to asset liability management (ALM) mismatches and hence, alternatives like raising of money through corporate bonds is necessary.
- Also, bank lending to the infra segment has slowed down in the past few years and the annual growth rates plummeted to 3% between FY14 and FY17, against 43% from FY2000 to FY13. The NPAs from the segment have also ballooned to 9% in FY17, from 3% in FY13.

Bad Bank

Context: The concept of having a ‘bad bank’ to take over the troubled loans of public sector banks (PSBs) is being considered by the government to enable them to get back to business. Finance minister Piyush Goyal recently announced that a bankers’ panel would look at the feasibility of setting up a new asset reconstruction company (ARC) or asset management company (AMC) to take over bad loans of PSBs. The panel is headed by Punjab National Bank non-executive chairman Sunil Mehta.

Background:

The Bad Bank concept was pioneered at the Pittsburgh-headquartered Mellon Bank in 1988 in response to problems in the bank’s commercial real-estate portfolio. According to McKinsey & Co, the concept of a “bad bank” was applied in previous banking crises in Sweden, France, and Germany.

How does a bad bank work?

While the government has not charted out any guidelines on the structure of a bad bank, such an institution would be largely based on the principles of an asset restructuring company (ARC), which buys bad loans from the commercial banks at a discount and tries to recover the money from the defaulter by providing a systematic solution over a period of time. Since a bad bank specialises in loan recovery, it is expected to perform better than commercial banks, whose expertise lies in lending.

Why a bad bank is likely to succeed?

- A single government entity will be more competent to take decisions rather than 28 individual PSBs.
- Capacity building for a complex workout can be better handled by the government which has regulatory control and has management skillsets in public sector enterprises.
- Foreign investors with both risk capital and risk appetite would be more in a government-led initiative, knowing that regulatory risks would stand considerably mitigated in various stages of resolution, including take outs.

What needs to be done now?

Whether or not the knots in the bad bank idea are sorted out, the government should focus on other reforms as well. One, amend the Prevention of Corruption Act to shield bankers and officers from investigative witch-hunts. Two, back bankers to take demonstrable action against wilful defaulters. And three, take a hard look at what ails the Insolvency and Bankruptcy Code.

Insolvency Code

Context: Recently, President Ram Nath Kovind gave his nod to promulgate the Insolvency and Bankruptcy code (Amendment) Ordinance 2018.

Significant changes introduced:

1. Homebuyers as financial creditors:

Homebuyers would now be treated as financial creditors or, in other words, on par with banks, with the power to initiate insolvency proceedings against errant builders. Homebuyers shall have the right to be represented in the committee of creditors (CoC), which takes the key decision regarding revival of the company or its

liquidation.

2. **Definition of a related party:**

The amendment now defines related party in relation to an individual running the firm and they would be barred from bidding for the firm under the resolution process. Prior to the amendment, related party was defined only with reference to a company facing insolvency.

3. **Changes in voting share of committee of CoC:**

The amendment has changed the voting share required in CoC meetings. For extending the insolvency process beyond 180 days till 270 days and for appointment of the resolution professional (who oversees the process), now a voting share of 66% is sufficient, compared with earlier requirement of 75%. Unless a specific approval is required in the Code, all other decisions of the CoC can be taken with 51% voting share against the earlier norm of 75%.

Withdrawal from the insolvency process is permitted with the approval of 90% of voting share of the CoC.

4. **If a financial creditor is a related party:**

If a financial creditor (banks and other financial institution) or his authorised representative is a related party to the company facing insolvency, it shall not have any participation or voting during a meeting of the CoC.

However, exemption is provided in case the financial creditor has become a related party on account of conversion or substitution of debt to equity shares or instruments convertible into equity shares prior to the date of commencement of insolvency proceedings.

5. **Moratorium period:**

For a company under insolvency, a moratorium period is provided during which no parallel proceedings are allowed. Whether such moratorium is available to guarantors of the company was a subject of debate. Now the amendment has said that the moratorium is not available to persons who provided guarantee for the loans availed by the corporate debtor.

6. **Tenure of an insolvency resolution professional:**

Under the insolvency process, an interim resolution professional (IRP) is appointed first and then, a resolution professional. As per the

amendment, the tenure of the IRP would continue till the appointment of the resolution professional (RP), compared with the earlier 30-day fixed tenure. Also, for the appointment of the RP, a written consent from the professional is required in a specified format.

Pietermaritzburg

Context: External Affairs Minister recently undertook a train journey from Pentrich to Pietermaritzburg.

Significance of the place:

It is a railway station in South Africa where a young Mahatma Gandhi was thrown out of a “Whites-only” compartment 125 years ago. On June 7, 1893, Gandhi, then a young lawyer, was thrown off the train’s first class compartment at Pietermaritzburg station after he refused to give up his seat as ordered by racially prejudiced officials.

Outcomes:

The incident led him to develop his Satyagraha principles of peaceful resistance and mobilize people in South Africa and in India against the discriminatory rules of the British.

Mission Raftaar

Key pointers:

- The Indian Railways recently conducted a one-day workshop ‘Mission Raftaar’ in which officials discussed ways to increase the average speed of freight and passenger trains.
- This workshop is an exercise with the top management of the railways to brainstorm about increase in speed of freight and passenger trains.
- Issues such as “punctuality, rolling stock, removing bottlenecks in terms of traffic, elimination of unmanned level crossings were discussed.
- ‘Mission Raftaar’ aims at doubling the average speed of freight trains and increasing the average speed of coaching trains by 25 kmph over a five-year period.

The average speed of freight trains is 24 kmph and that of passenger trains, excluding suburban trains, is 44 kmph. Increasing the average speed of trains is considered essential for reducing travel time for passengers, transit time for cargo, operational cost, and improving revenues and the railway’s market

share.

Small finance banks

Context: The Reserve Bank of India has decided to allow urban co-operative banks (UCB) to convert into small finance banks (SFB), a move aimed at bringing these entities into mainstream banking. It has been decided to allow voluntary transition of UCBs meeting the prescribed criteria into SFBs.

Significance of this move:

UCBs currently face regulation by both the RBI and the respective State governments. By turning into SFBs, they will be regulated only by the RBI.

What are small finance banks?

The small finance bank will primarily undertake basic banking activities of acceptance of deposits and lending to unserved and underserved sections including small business units, small and marginal farmers, micro and small industries and unorganised sector entities.

What they can do?

- Take small deposits and disburse loans.
- Distribute mutual funds, insurance products and other simple third-party financial products.
- Lend 75% of their total adjusted net bank credit to priority sector.
- Maximum loan size would be 10% of capital funds to single borrower, 15% to a group.
- Minimum 50% of loans should be up to 25 lakhs.

What they cannot do?

- Lend to big corporates and groups.
- Cannot open branches with prior RBI approval for first five years.
- Other financial activities of the promoter must not mingle with the bank.
- It cannot set up subsidiaries to undertake non-banking financial services activities.
- Cannot be a business correspondent of any bank.

The guidelines they need to follow:

- Promoter must contribute minimum 40% equity capital and should be brought down to 30% in 10 years.
- Minimum paid-up capital would be Rs 100 cr.
- Capital adequacy ratio should be 15% of

risk weighted assets, Tier-I should be 7.5%.

- Foreign shareholding capped at 74% of paid capital, FPIs cannot hold more than 24%.
- Priority sector lending requirement of 75% of total adjusted net bank credit. 50% of loans must be up to Rs 25 lakh.

Environmental Issues

Water Management Index

Context: NITI Aayog is planning to launch a Composite Water Management Index.

Benefits of the Index:

- The index can be utilised to formulate and implement suitable strategies for better management of water resources.
- The index would provide useful information for the States and also for the concerned Central Ministries/Departments enabling them to formulate and implement suitable strategies for better management of water resources.

Significance of the index:

- This index is an attempt to inspire States and UTs towards efficient and optimal utilization of water, and recycling thereof with a sense of urgency. It will be a useful tool to assess and improve the performance in efficient management of water resources.

Facts for Prelims:

Nikkei Asia Prize:

Context: Noted social reformer and founder of Sulabh International Bindeshwar Pathak was recently honored with Japan's prestigious 'Nikkei Asia Prize for Culture and Community'. The award was given to him for his significant work in tackling poor hygiene and discrimination.

Nikkei Asia Prize for Culture and Community:

- The Nikkei Asia Prize is an award which recognizes the achievements of people and organizations that have improved the lives of people throughout Asia.
- The awards were created and presented by Nikkei Inc, one of the largest media corporations in Japan.
- Launched in 1996, the program honors people in Asia who have made significant contributions in one of the three areas: regional

growth; science, technology and innovation; and culture.

Former PM Manmohan Singh and Infosys Chairman Narayan Murti are among the few Indians who have won the prize in the past.

To be an environmental world power

Context:

The UN **Environment Programme (UNEP)** has chosen India to be the 'host country' to mark **World Environment Day**. But the question is when will New Delhi rise to connect the dots between representative democracy and ecological sanity.

The theme of the **2018 World Environment Day** is **"BEAT PLASTIC POLLUTION,"** which aimed to raise awareness on the environmental and health challenges posed by haphazard disposal of non-biodegradable waste.

Ecological Degradation leads to Destruction:

Ecological ruin is on a gallop across South Asia, with life and livelihood of nearly a quarter of the world's population affected. Yet, our polities are able to neither fathom nor address the degradation. The distress is paramount in the **northern half of the subcontinent**, roping in the swathe from **the Brahmaputra basin to the Indus-Ganga plain**.

Within each country, with politics dancing to the tune of populist consumerism, **nature is without a guardian**. The erosion of civility in geopolitics keeps South Asian societies apart when **people should be joining hands** across borders to save our common ground.

Because wildlife, disease vectors, aerosols and river flows do not respect national boundaries, the environmental trends must perforce be discussed at the **regional inter-country level**. As the largest nation-state of our region, and the biggest polluter whose population is the most vulnerable, **India needs to be alert to the dangerous drift**.

Pollution can originate in one country but can cause **damage in another country's environment**, by crossing borders through pathways like water or air. Pollution can be transported across hundreds and even thousands of kilometers.

Present situation in India:

Despite being a **vast democracy** where people power should be in the driving seat, the Indian

state not only neglects its own realm, it does not take the lead on **cross-border environmentalism**.

Thus, Bihar is helping destroy the **Chure/Siwalik range of Nepal** to feed the construction industry's demand for boulders and conglomerate, even though this hurts Bihar itself through greater floods, desertification and aquifer depletion.

Air pollution is strangling the denizens of Lahore, New Delhi, Kathmandu and Dhaka alike, but there is no collaboration. Wildlife corridors across States, provinces and countries are becoming **constricted by day by day**.

Worsening air quality in the last two decades has emerged as one of the major reasons for high numbers of **premature deaths**, says a new study conducted in 11 north Indian cities.

Climate change is introducing massive disturbances to South Asia – most notable is **rise of sea levels**. The entire **Indian Ocean coastline** will be affected, but the hardest hit will be the **densely populated deltas** where the Indus, the Irrawaddy and the Ganga-Brahmaputra meet the sea.

Yet, there is **no proper mechanism and framework** to deal and address the tens of millions of 'climate refugees', who will move inland in search for survival.

China's Tackling on Pollution:

China has been resolutely tackling **air pollution** and **promoting clean energy**. But while Beijing's centralised governance mandates environmentalism-by-decree, the subcontinental realities demand civic participation for sustainability to work.

It is very promising to see that China is putting pollution high in its **domestic policy agenda**, and people look forward to seeing how the country moves forward on this.

China want to take on a leadership role by **implementing policies domestically** that address plastic pollution upstream.

Start measuring 'green GDP' of States :

India's environmental diversity and riches are universally recognised but have never been quantified. Starting this year, the government will begin a five-year exercise to compute **district-level data of the country's environmental wealth**.

The numbers will eventually be used to calculate **every State's 'green' Gross Domestic Product (GDP)**. The metric will help with a range of policy decisions, such as compensation to be paid during land acquisition, calculation of funds required for climate mitigation, and so on.

A pilot project is set to begin this September in **54 districts**. **Land will be demarcated into "grids"** with about 15-20 grids per district. These will capture the diversity in the State's geography, farmland, wildlife, and emissions pattern, and will be used to compute a value.

The government has also launched a **'green skilling' programme** under which youth, particularly school dropouts, would be trained in a range of 'green jobs'— as operators of scientific instruments used to **measure environmental quality**, as field staff in nature parks, and as tourist guides. Some of the labour required for the survey would also be sourced from the **green-skilled workforce**.

A new kind of Chipko:

Today, environmental activists all over tend to be lampooned in the media and social media as anti-national, anti-development saboteurs.

The **task of preserving the forests and landscapes** has mostly been relegated to the indigenous communities. You will have the **Adivasi communities of the Deccan** organising to save ancestral forests, and the **indigenous Lepcha** fighting against the odds to protect the upper reaches of the Teesta. The urban middle class is not visible in environmentalism, other than in 'beautification projects'.

Perhaps we have been foolhardy in waiting for **another Chipko to emerge**, and the changed times may require new approaches. Tomorrow's activists must work to quantify the **economic losses of environmental destruction and get local institutions to act on their ownership of natural resources**.

Conclusion:

The activists must harness **information technology** so as to engage with the public and to override political frontiers, and they must **creatively use the power of the market itself** to counter non-sustainable interventions.

For Instance, under focus was the **severe air pollution in Delhi** caused by the burning of

paddy straw in neighbouring Haryana and Punjab. An **'INDUS impact' projects** aims to halt the hazardous burning of paddy stubble by promoting business partnerships that "upcycle" it.

This entails using paddy straw as feedstock to make materials that would find use in construction and packaging — a **technology and expertise** that foreign companies are keen to market in India.

The States and the Union government need to take note of this alarming situation and create a **national clean air action plan** which is ambitious, effective and focuses on time-bound implementation

Work towards ecological sustainability must go beyond ritual, with the path seeming to lie in the **empowerment of local government** all over. Elected representatives in cities and districts must be challenged to emerge as the bulwark of environmentalism even as the provincial and national governments are asked to rise to their regulatory responsibilities.

When **'organic environmentalism'** rises **from the grassroots** and makes state authority accountable, South Asia and its peoples will be protected. At that point, no force will be able to stop activism across the frontiers and South Asia will begin to tackle pollution.

Dam Rehabilitation & Improvement Project (DRIP)

Context: The Expenditure Finance Committee (EFC) has approved revised cost estimate of Dam Rehabilitation & Improvement Project (DRIP) for Rs. 3466 crore and has extended time period for conclusion till June, 2020.

About DRIP:

The Ministry of Water Resources (MoWR), Government of India, with assistance from the World Bank, is implementing the DAM REHABILITATION AND IMPROVEMENT PROJECT (DRIP), which would be a six-year project. The Central Dam Safety Organisation of Central Water Commission, assisted by a Consulting firm, is coordinating and supervising the Project implementation.

Goals: The project originally envisaged the rehabilitation and improvement of about 223 dams

within four states namely, Kerala, Madhya Pradesh, Odisha, and Tamil Nadu and later Karnataka, Uttarakhand (UNVNL) and Jharkhand (DVC) joined DRIP and total number of dams covered under DRIP increased to 250. The project will also promote new technologies and improve Institutional capacities for dam safety evaluation and implementation at the Central and State levels and in some identified premier academic and research institutes of the country.

The project development objectives of DRIP are: (i) to improve the safety and performance of selected existing dams and associated appurtenances in a sustainable manner, and (ii) to strengthen the dam safety institutional setup in participating states as well as at central level.

Facts for Prelims:

- About CWC: Central Water Commission is a premier Technical Organization of India in the field of Water Resources and is presently functioning as an attached office of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India.
- Functions: The Commission is entrusted with the general responsibilities of initiating, coordinating and furthering in consultation of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development. It also undertakes the investigations, construction and execution of any such schemes as required.

Facts for Prelims- DHARMA: It is a software programme – Dam Health and Rehabilitation Monitoring Application (DHARMA). DHARMA is a web tool to digitize all dam related data effectively. It will help to document authentic asset and health information pertaining to the large dams in the country, enabling appropriate actions to ensure need based rehabilitation. It is a new stride in asset management aspect by India.

Various Flood management schemes approved (Can be asked in match- the- following questions):

- The Mahananda Flood Management Scheme: Bihar.
- Seer Khad Project: Himachal Pradesh.
- Yanam Flood Protection Works: Union Territory Puducherry.

- Ghatal Master Plan: West Bengal.

Tripura's "State Fruit":

President Ram Nath Kovind has declared Tripura's queen variety pineapple as "state fruit".

Inter-Linking of Rivers

Context: The Union Cabinet was recently apprised of the progress report of Special Committee for Inter-Linking of Rivers.

Background:

The progress report on interlinking of rivers has been submitted to the Cabinet in compliance of the Hon'ble Supreme Court judgement. The court had directed the Union Government of India to constitute a Special Committee for Interlinking of Rivers.

Need for interlinking of rivers:

The interlinking project aims to link India's rivers by a network of reservoirs and canals that will allow for their water capacities to be shared and redistributed. According to some experts, this is an engineered panacea that will reduce persistent floods in some parts and water shortages in other parts besides facilitating the generation of hydroelectricity for an increasingly power hungry country.

Benefits associated:

Redistribution: India receives most of its rain during monsoon season from June to September, most of it falls in northern and eastern part of India, the amount of rainfall in southern and western part are comparatively low. It will be these places which will have shortage of water. Interlinking of rivers will help these areas to have water throughout the year.

Boost to agriculture: The main occupation of rural India is agriculture and if monsoon fails in a year, then agricultural activities come to a standstill and this will aggravate rural poverty. Interlinking of rivers will be a practical solution for this problem, because the water can be stored or water can be transferred from water surplus area to deficit.

Disaster mitigation: The Ganga Basin, Brahmaputra basin sees floods almost every year. In order to avoid this, the water from these areas has to be diverted to other areas where there is scarcity of water. This can be achieved by linking the rivers. There is a two way advantage with this – floods will be controlled and scarcity of water will be reduced.

Transportation: Interlinking of rivers will also have commercial importance on a longer run. This can be used as inland waterways and which helps in faster movement of goods from one place to other.

Employment generation: Interlinking also creates a new occupation for people living in and around these canals and it can be the main areas of fishing in India.

Concerns associated:

- Interlinking of rivers will cause huge amount of distortion in the existing environment. In order to create canals and reservoirs, there will be mass deforestation. This will have impact on rains and in turn affect the whole cycle of life.
- Usually rivers change their course and direction in about 100 years and if this happens after interlinking, then the project will not be feasible for a longer run.
- Due to interlinking of rivers, there will be decrease in the amount of fresh water entering seas and this will cause a serious threat to the marine life system and will be a major ecological disaster.
- Due to the creation of Canals and Reservoirs, huge amount of area which is occupied by the people will be submerged leading to displacement of people and government will have to spend more to rehabilitate these people.

The amount required for these projects is so huge that government will have to take loans from the foreign sources which would increase the burden on the government and country will fall in a debt trap.

Methanol Economy

Context: The NITI Aayog is working on a roadmap for full-scale implementation of methanol economy in the country in near future, which would not only curb pollution, but reduce India's dependence on oil imports as well.

Methanol as an alternative fuel:

Methanol is a promising fuel as it is clean,

cheaper than fossil fuels and a good substitute for heavy fuels. India imports methanol from Saudi Arabia and Iran at present. Across the world, methanol is emerging as a clean, sustainable transportation fuel of the future.

Why Methanol?

- Methanol can be used as an energy producing fuel, transportation fuel and cooking fuel, cutting down India's oil import bill by an estimated 20% over the next few years. Unlike CNG, using methanol as a transportation fuel would require minimal alteration in the vehicles.
- Methanol is a clean-burning fuel that produces fewer smog-causing emissions — such as sulphur oxides (SOx), nitrogen oxides (NOx) and particulate matter — and can improve air quality and related human health issues.
- Methanol is most commonly produced on a commercial scale from natural gas. It can also be produced from renewable sources such as biomass and recycled carbon dioxide.
- As a high-octane vehicle fuel, methanol offers excellent acceleration and power. It also improves vehicle efficiency.

Advantages of methanol:

- Methanol is a clean burning drop in fuel which can replace both petrol & diesel in transportation & LPG, Wood, Kerosene in cooking fuel. It can also replace diesel in Railways, Marine Sector, Gensets, Power Generation and Methanol based reformers could be an ideal complement to Hybrid and Electric Mobility.
- Methanol is a scalable and sustainable fuel, that can be produced from a variety of feedstocks like Natural Gas, Coal (Indian High Ash Coal), Bio-mass, Municipal Solid waste and most importantly from CO2.
- Methanol burns efficiently in all internal combustion engines, produces no particulate matter, no soot, almost nil SOX and NOX

emissions (NEAR ZERO POLLUTION). The gaseous version of Methanol – DME can be blended with LPG and can be an excellent substitute for diesel in Large buses and trucks.

- Methanol 15 % blend (M15) in petrol will reduce pollution by 33% & diesel replacement by methanol will reduce by more than 80%.

In energy sector:

Other major area where methanol can reduce pollution is the Energy sector. India has an installed capacity of 22000 MW on HFO (Heavy fuel oil) alone. HFO is one of the dirtiest fuel and most countries of the world have abandoned it. The entire HFO usage can be replaced by Methanol. Power Modules of Mobile Towers (about 750000) in India can fully be replaced by Methanol Reformer / Fuel Cell based platforms in the next two years. Diesel industrial Gensets, Gas Turbines running on Naptha, LFOI (Light Fuel Oil) and other dirty fuels can also be fully replaced. Industrial boilers which are running on diesel will also be replaced with Methanol.

Methanol as an enduring solution to human energy needs?

Methanol has the potential to be an enduring solution to human energy needs is because the belched out CO₂ (greenhouse gas emission) both from using Methanol and while producing Methanol can be tapped back to produce Methanol. Thereby a seamless loop of CO₂ sequestration cycle is created to perpetually burn fuels without polluting the environment at all. CO₂ from steel plants, Thermal Power plants, Cement Plants etc. can be tapped in large quantities to produce Methanol.

Way ahead:

The Concept of “Methanol Economy” is being actively pursued by China, Italy, Sweden, Israel, US, Australia, Japan and many other European countries. 10% of fuel in China in transport Sector is Methanol. Methanol Economy, if

adopted by India can be one of the best ways to mitigate the Environmental hazards of a growing economy. NITI Aayog is preparing a road map for a full-scale implementation in the near future.

Defence

Defence Acquisition Council (DAC)

Context: The Defence Acquisition Council (DAC) has approved procurement of high powered radars for the Indian Air Force and air cushion vehicles for the Army and the Coast Guard together worth over ₹ 5,500 crore.

The 12 high power radars will be procured indigenously under the ‘Buy (Indian) IDDM’ category.

Defence Acquisition Council (DAC):

What is it? To counter corruption and speed up decision-making in military procurement, the government of India in 2001 decided to set up an integrated DAC. It is headed by the Defence Minister.

Objective: The objective of the DAC is to ensure expeditious procurement of the approved requirements of the Armed Forces, in terms of capabilities sought, and time frame prescribed, by optimally utilizing the allocated budgetary resources.

Functions: The DAC is responsible to give policy guidelines to acquisitions, based on long-term procurement plans. It also clears all acquisitions, which includes both imported and those produced indigenously or under a foreign license.

Facts for Prelims:

- A new category of procurement ‘Buy

{Indian-IDDMM (Indigenously Designed, Developed and Manufactured)}' has been introduced in Defence Procurement Procedure-2016 and the same has been accorded top most priority for procurement of capital equipment.

- Under the new category, indigenously designed equipment with 40% indigenous content (IC), or equipment not necessarily designed in-house but having a 60% IC, is intended for procurement from the local industry.

Apache helicopters:

Context: The US has approved a deal to sell six AH-64E Apache helicopters to India for \$930 million as well as Hellfire and Stinger missiles to bolster the country's ability to defend its homeland and deter "regional threats".

About Apache helicopters:

- The AH-64 Apache is a multi-role combat helicopter and is used by the US Army and a number of international defence forces.
- It is equipped with all-weather and night-fighting features apart from an advanced weapons system.
- The Apache has advanced laser, infrared, and target acquisition designation, including other systems, to locate, track and attack targets.
- It also has stealth characteristics, advanced sensors and beyond-visual-range missiles.

Pinaka rocket:

Context: The indigenous Pinaka rocket system of the Defence Research and Development Organisation (DRDO) is being evolved into a precision-guided missile, with enhanced range and accuracy to hit its targets.

About Pinaka:

- The rocket has been developed by the

Armament cluster of the DRDO, with a lead from Pune-based Armament Research and Development Establishment (ARDE).

- It is used to neutralize the enemy's positions that are strategically important for the enemy. The advanced versions of this system can also be used to conduct surgical strikes even without entering into the enemy area.
- The launcher can fire 12 rockets with 1.2 tonnes of high explosives within 44 seconds and destroy a target area of 4-square km at a time.
- Pinaka is capable of working in different modes – autonomous mode, stand-alone mode, remote mode and manual mode.
- The second variant of Pinaka, known as Mark-II, has a maximum range of 75 km.

DRDO is working with Israel's IMI to develop Pinaka Mark-III which will use IMI's Trajectory Correction System (TCS) that will enhance the accuracy of the attack.

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