

Abhimanu

Weekly current affairs Series

Week: I, September 2017

Abhimanu's IAS Study Group

Chandigarh

STPs to be constructed under Hybrid Annuity Model

- In the first-of-its-kind success, the creation and maintenance of sewage treatment infrastructure under Hybrid Annuity based PPP model has taken off, with NMCG awarding work to private sector for construction and maintenance of Sewage Treatment Plants (STPs) in two major cities in Ganga river basin – Varanasi and Haridwar.
- The awarded projects would ensure that no untreated sewage waste water goes into river Ganga.
- Hybrid Annuity based PPP model has been adopted for the first time in the country in sewage management sector. Such a model has earlier been adopted successfully in highway sector only.
- What you need to know about the Hybrid Annuity Model?
- The Government of India had accorded Cabinet approval to Hybrid Annuity-PPP model in January 2016 with 100% central sector funding.
- Under this model, the development, operation and maintenance of the sewage treatment STPs will be undertaken by a Special Purpose Vehicle (SPV) to be created by the winning bidder at the local level. As per this model, 40% of the Capital cost quoted would be paid on completion of construction while the remaining 60% of the cost will be paid over the life of the project as annuities along with operation and maintenance cost (O&M) expenses.
- One of the most important features of this model is that both the Annuity and O&M payments are linked to the performance of the STP. This will ensure continued performance of the assets created due to better accountability, ownership and optimal performance.

Other models:

The hybrid model will be the fourth to be introduced in India for the execution of road projects and is intended to kickstart stalled projects and accelerate highway construction. The three formats for road projects in India followed so far are:

- Build-operate-transfer (BOT) annuity, in which a developer builds a highway, operates it for a specified duration and transfers it back to the government, which then pays the developer annuity over the period of concession.
- BOT toll, under this private party is selected to build, maintain and operate the road based on the fact that which private bidder offered maximum sharing of toll revenue to the government. Here, all the risks- land acquisition and compensation risk, construction risk (i.e risk associated with cost of project), traffic risk and commercial risk lies with the private party. The private party is dependent on toll for its revenues. The government is only responsible for regulatory clearances.
- EPC(Engineering Procurement Construction), wherein the developer executes the project on behalf of the government. EPC model was brought in, where all (100%) money or cost to build the road is provided by the government including that for land acquisition and rehabilitation of people affected by project. Private developers will only design and build fixed length of stretches and leave after completing their part of work handing the road to the government, which then maintains and operates the road by collecting toll or otherwise. The contract for building road is given to that private player who offers to build it at lowest price while simultaneously guaranteeing the quality desired. Quite clearly, the risk to private player in this model is minimum or even nil as it doesn't need to even bother about the finances for the project.

- The hybrid annuity model is a mix of BOT toll and EPC models. In the next two fiscal years, the government will build more than 5,000 km of national highways based on the hybrid annuity model. In the present fiscal year, 1,000 km national highway projects were awarded through the BOT model and 3,000 km through the engineering, procurement and construction (EPC) model.

Advance Pricing Agreements (APAs)

- The Central Board of Direct Taxes (CBDT) has entered into 4 more Advance Pricing Agreements (APAs) during August, 2017. Out of these 4 Agreements, 3 are Unilateral and 1 is a Bilateral.
- With the signing of these 4 Agreements, the total number of APAs entered into by CBDT has reached 175. This includes 162 Unilateral APAs and 13 Bilateral APAs. In the current financial year, a total of 23 APAs (2 Bilateral and 21 Unilateral) have been signed till date.
- The 4 APAs entered into during August, 2017 pertain to various sectors of the economy like Telecom, Banking, Manufacturing and Education.

About APA(Advance Pricing Agreement):

- An APA is an agreement between a tax payer and tax authority determining the transfer pricing methodology for pricing the tax payer's transactions for future years. The methodology is to be applied for a certain period of time based on the fulfillment of certain terms and conditions (called critical assumptions).
- An APA can be unilateral, bilateral, or multilateral.
- Unilateral APA: An APA that involves only the tax payer and the tax authority of the country where the tax payer is located.
- Bilateral APA (BAPA): An APA that involves the tax payer, associated enterprise (AE) of the tax payer in the foreign country, tax authority of the country where the tax payer is located, and the foreign tax authority.
- Multilateral APA (MAPA): An APA that involves the tax payer, two or more AEs of the tax payer in different foreign countries, tax authority of the country where the tax payer is located, and the tax authorities of AEs.
- The APA provisions were introduced in India with effect from July 1, 2012 vide the Finance Act, 2012. The detailed rules (APA Rules) for the implementation of the APAs were introduced by the Central Board of Direct Taxes (CBDT) by way of a notification in the official gazette on 31st August 2012. The APA Rules provide detailed guidelines on the process along with information, data, fee details and forms that need to be filed.
- The APA regime in India is widely seen as a step towards eliminating dispute and uncertainty on transfer pricing matters by creating a conducive environment for negotiation to arrive at a unanimous approach.

Analysis:

- Transfer pricing (TP) is viewed as a major tool to raise tax revenue. Over the past few years, the number of TP audits has increased and aggressive positions have been adopted by the Indian Revenue, which has contributed to long drawn and protracted litigation. While Courts have provided guidance on some contentious issues, TP continues to dominate the tax litigation scenario for MNCs in India.
- The domestic appeal and dispute resolution process in India is slow and very time consuming. Therefore, the need for an alternative dispute resolution mechanism such as the Advance Pricing Agreement (APA) program, which provides a proactive opportunity for taxpayers to not only prevent future tax controversies but also to provide a rational basis for settling past disputes where an APA outcome may have a significant persuasive value.
- The APA program is designed to avoid the confrontation inherent in an examination or an audit and foster more effective communication between taxpayers and the Indian Revenue Authority, by helping both the parties to focus on relevant facts and circumstances in advance.
- A pre-emptive approach through APAs to managing global transfer pricing disputes can enhance both efficiency and effectiveness. Many countries are therefore, adopting APA programs to address evolving TP

issues worldwide. In this ever evolving TP controversy's dynamic environment, the Indian APA program has been perceived as a "Sign of Relief" for MNCs to bring tax certainty in their business.

RBI includes HDFC Bank in the 'too big to fail' list

- Private sector lender HDFC Bank Ltd has been declared a domestic-systemically important bank (D-SIB).
- With this, the bank has joined State Bank of India (SBI) and ICICI Bank Ltd, which have been tagged as D-SIBs or "too-big-to-fail for the third consecutive year.
- Such classification means the collapse of these lenders could have a cascading impact on the entire financial system and the economy. Considering their status, D-SIBs are mandated to maintain a progressively higher share of risk-weighted assets as tier-I equity, which is a measure of the bank's core capital.
- In case of HDFC Bank, the additional capital surcharge will be applicable from 1 April 2018.

Systematically Important Banks (D- SIBs):

- SIBs are perceived as certain big banks in country. Since country's economy is dependent upon these banks, they are perceived as 'Too Big To Fail'.
- There are two types of SIBs: Global SIBs, identified by BASEL committee on banking supervision and Domestic SIBs; identified by central Bank of country.
- RBI had started listing D-SIBs from August 2015 after it had issued Framework for dealing with D-SIBs in July 2014. D-SIB Framework requires RBI to disclose names of banks designated as D-SIBs every year in August starting from August 2015.
- The framework also requires that D-SIBs may be placed in four buckets depending upon their Systemic Importance Scores (SISs). Based on bucket in which D-SIB is placed, an additional common equity requirement has to be applied to these listed banks, as mentioned in Framework.
- In case foreign bank having branch presence in India is Global-SIB, it has to maintain additional CET1 capital surcharge in India as applicable to it as a G-SIB, proportionate to its Risk Weighted Assets (RWAs) in India under the D-SIB Framework.

Analysis:

- Following the global financial crisis of 2008, it was observed that problems faced by certain large and highly interconnected financial institutions hampered orderly functioning of financial system, which in turn, negatively impacted real economy.
- As some of the banks are perceived as TBTF, they can lead to reckless practices on their part like increased risk-taking, reduction in its market discipline, creation of competitive distortions etc. because of expectation of government support them at time of distress.
- All this can increase probability of distress in future. Therefore, it is required recognition of these banks as SIBs and subjected to additional policy measures to deal with systemic risks and moral hazard issues posed by them. They are forced to have additional capital against financial emergency, so that taxpayer money not wasted in rescuing them during crisis.

The Code on Wages Bill 2017

- The Union Government as part of labour law reforms has undertaken drive to rationalize 38 Labour Acts by framing 4 labour codes viz Code on Wages, Code on Social Security, Code on Industrial Relations and Code on occupational safety, health and working conditions.
- The codification of labour Laws will remove multiplicity of definitions and authorities leading to ease of compliance without compromising wage security.

Highlights of the bill:

- At present, the provisions of the Minimum Wages Act and the Payment of Wages Act do not cover substantial number of workers, as the applicability of both these Acts is restricted to the Scheduled Employments /

Establishments. However, the new Code on Wages will ensure minimum wages to one and all and timely payment of wages to all employees irrespective of the sector of employment without any wage ceiling.

- A concept of statutory National Minimum Wage for different geographical areas has been introduced. It will ensure that no State Government fixes the minimum wage below the National Minimum Wages for that particular area as notified by the Central Government.
- The proposed payment of wages through cheque or digital/ electronic mode would not only promote digitization but also extend wage and social security to the worker. Provision of an Appellate Authority has been made between the Claim Authority and the Judicial Forum which will lead to speedy, cheaper and efficient redressal of grievances and settlement of claims
- Penalties for different types of violations under this Code have been rationalized with the amount of fines varying as per the gravity of violations and repeat of the offences. Provision of compounding of offences has been made for those which are not punishable by a penalty of imprisonment.
- Central Government has not fixed or mentioned any amount as national minimum wage" in the Code on Wages Bill 2017. The minimum wages will vary from place to place depending upon skill required, arduousness of the work assigned and geographical location.
- Further, the Code on Wages Bill 2017, in the clause 9 (3), clearly states that the Central Government, before fixing the national minimum wage, may obtain the advice of the Central Advisory Board, having representatives from employers and employees. Therefore the Code provide for a consultative mechanism before determining the national minimum wage.

NATIONAL POLITY

Saurashtra Narmada Avataran Irrigation Yojana’ (SAUNI)

- The President of India, Shri Ram Nath Kovind recently laid the foundation stone of ‘Saurashtra Narmada Avataran Irrigation Yojana’ (SAUNI) Phase-II Link-4 in Rajkot, Gujarat.

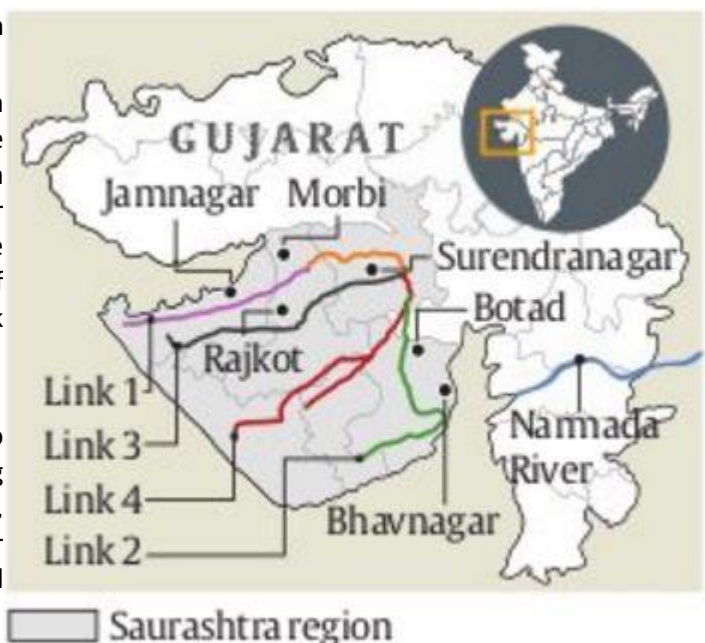
What is the SAUNI Yojana?

About SAUNI Yojana(Saurashtra Narmada Avtaran Irrigation Yojana (Sauni Yojana)

- Saurashtra-Narmada Avataran Irrigation Yojana (Sauni Yojana) has been launched to divert one MAft excess over flowing flood water of Narmada allocated to Saurashtra Region. The excess over flowing flood water of Narmada will be distributed to 115 reservoirs of eleven districts of Saurashtra through total 1126 km long four link pipelines benefitting 10,22,589 acre land. '

These links are

- Link: 1 From Machhu-II dam of Morbi district to Sani Dam of Jamanagar District : Having carrying capacity of 1200 cusecs, 30 reservoirs of Rajkot, Morbi, Devbhoomi Dwarka and Jamanagar Districts will be filled and 2,02,100 acre area will



be benefitted. The works for about 57.67 Km long pipeline of initial reach of this link are awarded and are under progress.

- Link: 2 Limbdi Bhogavo-II Dam of Surendranagar District to Raidi Dam of Amreli District : having carrying capacity of 1050 cusecs, 17 reservoirs of Bhavnagar, Botad and Amreli Districts and area of 274700 acres will be benefitted. The works for about 51.28 Km long pipeline of initial reach of this link are awarded and are under progress.
- Link: 3 From Dholidhaja Dam of Surendranagar District to Venu-I Dam of Rajkot District :having carrying capacity of 1200 cusecs, 28 reservoirs of Rajkot, Jamanagar, Dev bhoomi Dwarka, Porbandar, Morbi and Surendranagar Districts and 198067 acre area will be benefitted. The works for about 66.30 Km long pipeline of initial reach of this link are awarded and are under progress.
- Link: 4 From Limbdi Bhogavo-II Dam of Surendranagar District to Hiran-II Irrigation scheme of Junagadh : having carrying capacity of 1200 cusecs , 40 reservoirs of Rajkot, Surendranagar, Junagadh, Porbandar, Gir Somnath, Amreli and Botad Districts and area of 3,47,722 acre will be benefitted. The works for about 54.70 Km long pipeline of initial reach of this link are awarded and are under progress.

India's first World Heritage City

- The commercial capital of Gujarat, Ahmedabad, has been formally accorded the status of India's first World Heritage City by UNESCO.
- The honour makes the walled city of Ahmedabad the first city in India, and the third in Asia, to be on the list. The other two cities are- Bhaktpur in Nepal and Galle in Sri Lanka.
- India is second after China in terms of number of world heritage properties in ASPAC (Asia and Pacific) region, and overall seventh in the world.
- India now has a total of 36 World Heritage Inscriptions — 28 cultural, 7 natural and 1 mixed site.
- The walled city of Ahmedabad believed to be founded by Ahmed Shah some six hundred years earlier has 26 Archaeological Survey of India (ASI)-protected structures, hundreds of 'pols' that capture the essence of community living and numerous sites associated with Mahatma Gandhi who lived here from 1915 to 1930.
- In 1984, the first study for conserving heritage structures was carried out in the city. A heritage cell was also set up by the Ahmedabad Municipal Corporation (AMC).
- The city had featured in UNESCO's tentative list of world heritage cities on 31 March, 2011.

Why Ahmedabad declared as Heritage city?

A thriving centre for trade

- When Sultan Ahmad Shah established the city, he invited merchants, weavers and skilled craftsmen to come to Ahmedabad and help build it into a flourishing centre for trade and commerce. While the city exchanged hands from one ruling dynasty to another, it remained a major attraction to enterprisers from across the globe. Its location ensured it gained a status of a thriving industrial centre where Dutch and English East India company ships would come for trading in indigo, saltpetre and textiles. By the time the Mughals took over in the late 16th century, it had already become a splendid city, rich in culture and architecture.

An architectural blend of Hindu-Muslim culture

- The richness of architecture present in Ahmedabad is enhanced by the cultural fusion of Hindu and Muslim elements. For a long time while the city was ruled by Muslim monarchs, the wealth in the region was in the hands of the Hindu and Jain merchants.
- Consequently, while most of the public buildings were of Muslim ownership, the tone of the architecture evidently loaned much from Hindu artistic traditions. Pillars were brought in from the nearby Hindu kingdoms and Hindu and Jain craftsmen were employed to build them. "Ahmedabad's mosques and tombs are unpretentious in size, but the rich detail, the delicate tracery, and ornamented minarets make them most distinctive and more Indian in feeling than Muslim architecture elsewhere in India

- Ahmad Shah's mosque, Teen darwaza, the Jama masjid and Qutub Shah's mosque are some of the finest examples of a rich historicity in the city.

The centre for Gandhi's freedom struggle

- The indigenous nature of Ahmedabad provided Gandhi with the best platform for promoting nationalistic themes such as a belief in swadeshi products and the firmness to destroy colonial rule by hitting out at its economic roots.
- In Ahmedabad, unlike in Bombay or Calcutta, the elite who became a part of the freedom struggle, did not in any way identify with the Europeans. The trading class who made up Ahmedabad was rooted in local traditions and were fiercely opposed to European impact much before Gandhi set up his base there. The indigenous nature of Ahmedabad provided Gandhi with the best platform for promoting nationalistic themes such as a belief in swadeshi products and the firmness to destroy colonial rule by hitting out at its economic roots.

Opposition to European interference in shaping cityscape

- Section of the indigenous elite opposed the restructuring of the city by the colonial government and instead carried out their own reorganisation of the urban centre. Further, they also maintained an indigenous political and social hegemony in the city.

Uninhabited Lakshadweep island Parali I vanishes

- According to recently released study, Biodiversity-rich uninhabited islands part of Lakshadweep has vanished due to coastal erosion and another four such territories in the sea are shrinking fast.
- Parali I island, part of Bangaram atoll, which was 0.032 km in 1968 has been eroded to an extent of 100%, resulting in its inundation.

Highlights of the study:

- Apart from Parali I, net erosion was higher in Parali II (80%), followed by Thinnakara (14.38%), Parali III (11.42%) and Bangaram (9.968%).
- This complete erosion and inundation of Parali I was pointing to the gravity of issues associated with coastal erosion within the atoll.
- On an overall assessment of the changes in the aerial extent of islands using geographic information system (GIS), it has been noticed that all the five islets of Bangaram atoll had undergone coastal erosion.
- The results are indicative of the urgent measures to be implemented on each islet of the atoll to check further erosion.
- This study recommended checking the feasibility of a bio protection strategy using mangroves, in addition to the conventional physical protection measures.
- The assessment of the extent of geo-morphological changes associated with each island for a period of 45 years was carried out using geospatial techniques.
- Since the absence of Parli I island is noticed in both observations carried out in 2003 and 2007, it is assumed that the island has been subjected to complete erosion during 1968-2003 periods and an assessment of the exact year of its inundation requires data analysis for a span of 35 years extending from 1968.
- This report signifies that islands and coastal areas are going to get eroded and inundated due to rising sea levels because of increasing global temperature. India's coasts and islands, which are densely populated, are highly vulnerable.
- With the sea levels predicted to rise further, we should start preparing for building defenses to protect our coastlines and islands.

Xiamen Declaration

- 9th BRICS summit was recently held in Xiamen, China. This is the second time the China has hosted the summit after the 2011 summit.
- At the end of the summit, Xiamen declaration was adopted by the leaders of the five countries.

Salient points from the Xiamen Declaration:

- Besides naming terror groups responsible for violence and causing concern, Brics called for a comprehensive approach to combat terrorism, including countering radicalisation, recruitment, movement of terrorists, supply of weapons and money laundering.
- Working together to promote most effective use of fossil fuels and wider use of gas, hydro and nuclear power, which will contribute to the move towards a low emission economy, better energy access and sustainable development.
- Commitment to promote green development and low-carbon economy in the context of sustainable development and poverty alleviation.
- Enhancing Brics anti-corruption cooperation and supporting the strengthening of international cooperation against corruption.
- BRICS strongly deplored the latest nuclear test conducted by North Korea, and expressed deep concern over the ongoing tension and prolonged nuclear issue on the Korean Peninsula.

About BRICS:

- The acronym BRIC was first used in 2001 by Goldman Sachs in their Global Economics Paper, "The World Needs Better Economic BRICs" on the basis of econometric analyses projecting that the economies of Brazil, Russia, India and China would individually and collectively occupy far greater economic space and would be amongst the world's largest economies in the next 50 years or so.
- As a formal grouping, BRIC started after the meeting of the Leaders of Russia, India and China in St. Petersburg on the margins of G8 Outreach Summit in 2006. The grouping was formalized during the 1st meeting of BRIC Foreign Ministers on the margins of UNGA in New York in 2006. The 1st BRIC Summit was held in Yekaterinburg, Russia, on 16 June 2009.
- It was agreed to expand BRIC into BRICS with the inclusion of South Africa at the BRIC Foreign Ministers' meeting in New York in September 2010. Accordingly, South Africa attended the 3rd BRICS Summit in Sanya, China on 14 April 2011.

World University Rankings 2018

- The Times Higher Education (THE) has released the latest World University Rankings 2018.

Highlights of the report:

- The University of Oxford has topped the list, with California Institute of Technology and Stanford University grabbing the second and third rank respectively.
- This year too, no Indian university/institute made it to the top global list of 100.
- Indian Institute of Science (IISc), which was in the 201-250 band last year, has slipped further into the 251-300 band.
- This year, India's representation has also declined, from 31 institutions to 30, while eight of its universities have slipped to a lower band.
- The Indian Institute of Technology (IIT) Bombay has been listed 351-400 category.

- Indian Institute of Technology (IIT) Delhi, Indian Institute of Technology (IIT) Kanpur, Indian Institute of Technology (IIT) Kharagpur and Indian Institute of Technology (IIT) Roorkee have been listed in 501-600 category.
- Aligarh Muslim University, Banaras Hindu University, University of Delhi and Indian Institute of Technology Guwahati made it to the 601-800 list.
- China is now home to two universities in the top 30: Peking and Tsinghua.

About Ranking:

- It is the only global university performance table to judge research-intensive universities across all of their core missions: teaching, research, knowledge transfer and international outlook.
- This ranking use 13 carefully calibrated performance indicators to provide the most comprehensive and balanced comparisons, trusted by students, academics, university leaders, industry and governments.
- The calculation of the rankings for 2018 has been subject to independent audit by professional services firm PricewaterhouseCoopers (PwC), making these the only global university rankings to be subjected to full, independent scrutiny of this nature.

Bali Declaration

- India has disassociated itself from the adoption of the Bali Declaration as it referred to the violence in the Rakhine state of Myanmar and emphasised that any mention of country-specific issues was not appropriate.

About Bali declaration:

- The Bali Declaration, adopted at the World Parliamentary Forum on Sustainable Development in Indonesia, called on all parties to contribute to restoring stability and security in the region.
- It urged everyone to “exercise maximum self-restraint from using violent means, respect the human rights of all people in Rakhine state regardless of their faith and ethnicity, as well as facilitate and guarantee
- India has maintained that the Bali Declaration was not in line with the agreed principles of sustainable development.
- India also maintained that it continues to support achievement of Sustainable Development Goals (SDGs), the Forum’s mandate was to discuss global issues and the overarching principles relating to SDGs.
- India argued that specifying a particular country is unjustified as this Forum is focused on SDGs and inclusive development for all countries based on cooperative and collaborative approach to achieve the 2030 Agenda for the world.
- India has reiterated its stance that the purpose of convening the Parliamentary Forum is to arrive at mutual consensus for implementation of SDGs which requires inclusive and broad-based development processes.
- The proposed reference to the violence in Rakhine state in the Declaration was considered as not consensus-based and inappropriate.

Who are the Rohingyas?

- Rohingya are often said to be the world's most persecuted minority. They are an ethnic Muslim group in the majority Buddhist country and make up around one million of the total 50 million population.
- They hail from the country's northwest and speak a Bengali dialect. Almost all live in Rakhine, one of the poorest states, with a population of three million.
- About 140,000 Rohingya in the Rakhine state live in ghetto-like camps that they can't leave without government permission.
- They are not regarded as one of the country's 135 official ethnic groups and are denied citizenship under Myanmar's 1982 Citizenship Law, which effectively renders them stateless.
- To get citizenship, they need to prove they have lived in Myanmar for 60 years, but paperwork is often unavailable or denied to them. As a result, their rights to study, work, travel, marry, practise their religion and access health services are restricted.
- Myanmar views its Rohingya population as illegal Bangladeshi immigrants.
- Since 2012, the UNHCR estimates that more than 110,000 people, mostly Rohingya, left on flimsy boats to countries such as Thailand, the Philippines and Malaysia.

SCIENCE AND TECHNOLOGY

IRNSS-1H

- India's attempt to launch its eighth regional navigation satellite has failed. The satellite IRNSS-1H didn't come out of the heat shield as it should have, though the rocket's lift off was as planned.
- A satellite navigation is based on a network of satellites that transmit radio signals to determine the geospatial location of the receivers with high accuracy. The satellite systems can be used for providing position, navigation or for tracking the position of something fitted with a receiver.
- IRNSS-1H was being sent to space to back up — and mostly replace — the functions of India's first navigation satellite. IRNSS-1A was launched four years back.
- Between 2013 and 2016, ISRO put up seven IRNSS satellites to form the Indian Regional Navigation Satellite System, since called NavIC or Navigation with Indian Constellation.
- NavIC is the Indian regional version similar to the U.S. Global Positioning System GPS. It will drive all position-based activities on ground, sea and air, by giving near accurate location details of persons or objects. It will be used for military, commercial and common everyday uses.

What is a heat shield?

- A heat shield is an encasement which protects the satellite in the rocket from ultra-high temperatures, acoustic pressures that the spacecraft experiences while travelling in the Earth's atmosphere, an article in the Indian Express said.
- In space shuttles, the heat shield must protect the crew capsule and its precious astronaut crew from temperatures that can melt metal. These ultra-high temperatures result from friction between the air and the speeding spacecraft, according to NASA.

Heat shield separation and satellite

- Pressures decrease once the spacecraft is outside Earth's atmosphere, allowing the heat shield to separate in the fourth phase of the launch.
- After the heat shield failed to separate, the IRNSS-1H satellite could not be released into the orbit.
- The eighth satellite was a replacement for IRNSS-1A, one of the seven satellites in India's navigation satellite constellation, as its three rubidium atomic clocks on board had stopped functioning. It was also the first time the private sector was actively involved in assembling and testing of a satellite.

'Locky Ransomware'

- The Indian Computer Emergency Response Team (CERT-In) has issued an alert about spread of a new malicious software 'Locky', which is being circulated through spam messages that can potentially lock computers and demand ransom for restoring access to users.
- Locky Ransomware is learnt to be demanding ransom of half bitcoin, which at present rate is equivalent to over Rs 1.5 lakh. To target users spam e-mails showing links to fake websites is being used to spread Locky variants.
- This is the third major ransomware attack this year after Wannacry and Petya that crippled thousands of computers, including those of multinational corporations.

What is ransomware?

- Ransomware is a kind of cyber-attack that involves hackers taking control of a computer system and blocking access to it until a ransom is paid.
- For cyber criminals to gain access to the system they need to download a type of malicious software onto a device within the network. This is often done by getting a victim to click on a link or download it by mistake.
- Once the software is on a victim's computer the hackers can launch an attack that locks all files it can find within a network. This tends to be a gradual process with files being encrypted one after another.
- Large companies with sophisticated security systems are able to spot this occurring and can isolate documents to minimise damage.

How to protect yourself against ransomware attacks

- The best protection against ransomware attacks is to have all files backed up in a completely separate system. This means that if you suffer an attack you won't lose any information to the hackers.
- It is difficult to prevent determined hackers from launching a ransomware attack, but exercising caution can help. Cyber attackers need to download the malicious software onto a computer, phone or other connected device.
- The best way to protect yourself is to be suspicious of unsolicited emails and always type out web addresses yourself rather than clicking on links. Another key defence is antivirus programs that can scan files before they are downloaded, block secret installations and look for malware that may already be on a computer.

Victims are advised to never pay the ransom as it encourages the attackers. Even if victims do pay there is also no guarantee that all files will be returned to them intact.

Tiger augmentation programme

- Buxa Tiger Reserve in West Bengal has been identified for the tiger augmentation programme by the National Tiger Conservation Authority (NTCA).
- Tigers from the forest reserves of Assam, which have a similar flora and fauna, will be introduced in Buxa.

About Buxa tiger reserve:

- The reserve is located very close to Assam's Manas Tiger Reserve, it is believed that animals from Manas often come to Buxa using Bhutan as a corridor.
- The Buxa reserve is home to smaller cats such as leopards which occasionally surface in the tea gardens nearby.
- There are also common clouded leopards, jungle cats and fishing cats. The herbivore list includes elephants, Indian gaur, chital, sambars, barking deer and hog deer.
- It is home to at least 68 species of mammals, 41 species of reptiles and more than 246 species of birds, four species of amphibians, 73 species of fishes and over a hundred species of butterflies and moths.
- Notified as a tiger reserve in 1983, Buxa consists of moist, deciduous and evergreen forests. It stretches to a length of 50 km from west to east and 35 km from north to south.
- Over the past few years, the number of tigers in the Buxa reserve has been hotly debated by wildlife enthusiasts. While Forest Department officials claimed there were tigers in the reserve, almost no sighting of the big cats raised questions about their presence. The survey of tigers in 2011 based on DNA analyses of scat put the number of tigers at 20.

What are the challenges?

- The tiger reserve has an area of about 757.9 sq km, of which 390 sq km lies in the core area and 367 sq km in the buffer zone. There are about 38 villages in Buxa and 49 villages in the fringe area.
- A number of tea gardens are located on the periphery of the reserve.
- The people residing in the villages mainly work at the tea plantations. In an attempt to mitigate the human versus animal conflict, the Forest Department has started awareness programmes in the villages before introducing the tigers.

Current Affairs

- Besides the population pressure, another major challenge at Buxa is the broad gauge rail line passing through the reserve, connecting Siliguri and Alipurduar. Over the past few years, a number of elephants and other animals have died, having been run over by trains.

QUICK FACTS

- New CMD of SIDBI - **Mohammad Mustafa**
- Business and Climate Change Summit 2017 held in : **New Delhi**
- Surya Kiran is the joint exercise between: **India-Nepal**
- Eastern Economic Forum Meet Begins in : **Vladivostok**
- National Nutrition Week: **1st to 7th September**
- India's First World Heritage City : **Ahmedabad**
- New CAG of India - **Rajiv Mehrishi**