

Abhimanu

Weekly current affairs Series

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Abhimanu's IAS Study Group

Chandigarh

NATIONAL ECONOMIC AFFAIRS

RO RO Ferry Service

- The Prime Minister inaugurated Phase 1 of the RO RO (Roll on, Roll off) ferry service between Ghogha in Saurashtra, and Dahej in South Gujarat which shall reduce the travel time from eight hours to over an hour.
- A first of its kind in India, the ferry will be able to carry up to 100 vehicles (cars, buses and trucks) and 250 passengers between the two ports.
- The ro-ro ferry services are vessels made to carry wheeled cargo that are driven on and off the ferry on their own wheels or using a platform vehicle. The wheeled cargo includes, cars, trucks, semi-trailer trucks, trailers, and railroad cars.

About RO RO Ferry service:

- The term ro-ro is generally reserved for large ocean-going vessels. The vessels have either built-in or shore-based ramps that allow the cargo to be efficiently rolled on and off the vessel when in port. This is in opposite to the lift-on and lift-off (lo-lo) vessels, which use a crane to load and unload cargo.
- This ferry service project cost stands at Rs 614 crore. The central government has allocated Rs 117 crore for dredging work at both Ghogha and Dahej under the Sagarmala initiative. The Gujarat government body in charge of marine and ports affairs along the state's 1,600 km coastline, floated tenders for the project in 2011.
- Earlier, an attempt was made by a private firm with the support from the state government to launch a modern passenger ferry service between Okha in Devbhumi Dwarka district and Mandavi in Kutch district across the Gulf of Kutch in 2016. However, it had to be suspended after it faced technical and financial challenges.

Advantages of this Ro-Ro Ferry Service:

- It will reduce the current travel time between Ghogha and Dahej, linking in Saurashtra and South Gujarat, from over eight hours to a flat one hour. Thus reducing the distance between the two ports from over 360 km to 31 km.
- Allowing vehicles and passengers on board, the service will not only save time but also save fuel and help decongest roads as more and more people avail of it.
- It will boost connectivity and infrastructure in the state of Gujarat and bolster Saurashtra's economy.
- While the service is a common phenomenon and widely used mode of transport in across North America and Europe, its commencement will be a milestone in the transportation of goods and passengers in Gujarat.

Start-up Programmes for entrepreneurs in Oil and Gas sector

- The oil and gas PSUs have setup venture capital funds to encourage start-ups based on innovative ideas in the energy sector. Start-ups in the oil and gas sector are not short-term investments, but a long-term commitment.
- Ten public sector undertakings under the Ministry of Petroleum and Natural Gas, including the IOCL, ONGC, EIL, OIL, NRL, BPCL, HPCL, GAIL and MRPL, have created a corpus of Rs. 320 crore to support start-up initiatives.

- Since the launch of the scheme by the PSUs, there has been a constant flow of applications and some extremely innovative ideas have come through.
- The Start-up ideas have been received from a varying age group (from a fresh engineering graduate to a 70-year-old entrepreneur) from across the country.

The 10 oil PSUs have together selected nearly 30 start-up projects for support in the first round of the scheme. Some of the many innovative projects include:

- Electronic leak detector for detecting body and bung leak of LPG cylinders
- Self - sustaining low-maintenance toilets, or eco-toilets
- Multiuse Fuel from Agricultural Waste Biomass
- Remotely Operated Vehicles (ROVs) for underwater inspections
- Converting waste plastics to high value petroleum fuels
- Solar Stove - Revolutionary Day and Night Indoor Solar Cooktop System for all lifestyles

Significance:

- It will change the status of the youth of our country from job seeker to that of job provider.
- Business partnership between the start-ups and the PSUs of Petroleum Ministry will create a new benchmark for growth and job creation.

Public Finance Management System (PFMS)

- Union finance minister has launched the mandatory use of Public Finance Management System (PFMS) for all the Central Sector Schemes of the Government of India.

About PFMS Scheme:

- The PFMS Scheme has been rolled-out by the Controller General of Accounts (CGA) at the behest of Finance Ministry, Department of Expenditure as a cherished Public Finance Management (PFM) reform in the country.
- The Scheme aims at promoting transparency and bringing about tangible improvements in the overall Central Government Financial Management as well as implementation of various Central Government Schemes across the country.
- The ambit of PFMS coverage includes Central Sector and Centrally Sponsored Schemes as well as other expenditures including the Finance Commission Grants.
- Considering the diversity and multiplicity of channels through which money is spent/transferred (including through Direct Benefit Transfer), the PFMS is designed to serve the pertinent need of establishing a common electronic platform for complete tracking of fund flows from the Central Government to large number of programme implementing agencies, both under Central Government and the State Governments till it reaches the final intended beneficiaries.
- PFMS thereby enables real time monitoring of disbursements and utilization of funds which in turn provides a sound Decision Support System across Ministries and Departments of Government of India as well as all the State and UT Governments.
- Funds under the Centrally Sponsored Schemes flow almost entirely to the State Government treasuries and a substantial part of the funds under the Central Sector Schemes are also spent in the States through various Central Government agencies.
- The improvements brought-out in the Management of Public Funds through PFMS, it was stated, will have a cascading beneficial impact on the management of State Government Public Finances as well as efficient delivery of Public Services by the States.
- PFMS, therefore, reflects the true spirit of Co-Operative Federalism with the Centre and the State Governments combining their efforts to improve Public Finance Management for ultimate public good.
- The mandatory PFMS on-boarding for the remaining Schemes and Programmes including the Centrally Sponsored Schemes is also targeted to be achieved in a phased manner.

Analysis:

- PFMS, with the capability of providing real time information on resource availability, flows and actual utilization has tremendous potential to improve programme/financial management, reduce the float in the financial systems by enabling 'just in time' releases and also the Government borrowings with direct impact on interest costs to the Government.
- With the use of PFMS, there will not be much paper work and it would go a long way in monitoring and tracking of any unnecessary parking of funds by the implementing agencies and thereby minimizing the cases of delay and pending payments to a large extent.
- PFMS will progress towards a Government wide Integrated Financial Management System (GIFMIS) - as a comprehensive Payment, Receipt and Accounting System.
- Implementation of Schemes through PFMS has brought transparency in system and helped in easy transfer and tracking of funds. More than 300 Central and State Government Schemes are now riding on PFMS and payment of more than Rs. 2.91 lakh crore relating to various Schemes under DBT has been made through PFMS since 2013.
- PFMS has enabled the Government in taking forward the ground breaking initiative of Direct Benefit Transfers (DBT) with collateral benefits of plugging leakages and eliminating ghost beneficiaries.
- PFMS is poised to develop as one of the biggest Financial Management Systems of the world, which is critical for bringing about a transformational accountability and transparency in the Government Financial Management Systems and promoting overall Good Governance.

₹2.11 lakh crore for PSU banks to boost lending

- The Centre unveiled an ambitious plan to infuse ₹2.11 lakh crore capital over the next two years into public sector banks (PSBs).
- Government has taken massive step to capitalise PSBs in a frontloaded manner, to support credit growth and job creation.

Analysis:

- The positive thing about this decision is that the process has been frontloaded, meaning funds are being infused early in the financial year instead of the past practice of giving them in the latter half of the year, which used to make such an exercise meaningless.
- The move is also in line with the Reserve Bank of India's requirement that Indian banks must fully conform to the higher Basel-III capital adequacy ratios by March 31, 2019.
- The government's rationale that the capital infusion was based on an assessment of need, banks' projections of credit growth and an objective assessment of the growth potential of each PSB just doesn't wash.
- Also, the assertion that 75 per cent of the amount is being released now to provide liquidity support for lending operations as also to enable banks to raise funds from the market is questionable. **First**, loan growth is not dependent only on capital; it is also a function of the external economic conditions. Even without the fresh infusion, SBI's capital adequacy was in excess of 13 per cent and the reason why lending didn't take off was the lack of bankable projects.
- **Second**, public sector banks are supposed to raise Rs 1.1 lakh crore (Rs 1.1 trillion) of the Rs 1.8 lakh crore (Rs 1.8 trillion) that they need over the next four years. The problem is these banks are unlikely to gain access to the capital markets for equity capital. Listed PSBs, except State Bank of India and Bank of Baroda, are now trading at a significant discount to their book value, severely limiting their ability to attract external capital.
- The other problem is of course the limitation of the government holding not falling below 51 per cent.
- With its shareholding below 60 per cent in as many as nine PSBs, the scope for any significant dilution of government's ownership in many of these banks is limited by existing laws.
- In that context, the latest exercise on capital infusion seems to be a half-hearted measure.
- Given the fact that it is only a temporary breather for PSBs, the government now needs to look at the harder options.

- The 'Indradhanush' scheme, for example, talked about empowerment, accountability and governance reforms.
- As the Banking Boards Bureau is only an interim measure, the government must fast-track the setting up of a non-operative holding company for all banks to minimise its role in managing the affairs of PSBs.
- Capital infusion will be accompanied by reforms to enable the state-owned banks to play major role in the financial system and give a strong push to the job-creating MSME sector.
- The entire profits earned by banks have gone for making provisions for bad loans. Hence, capital is eroded and capital adequacy ratio is adversely impacted.
- Providing additional capital is an immediate short term solution, but recovery of bad loans is the real long term solution.

NATIONAL POLITY

Navika Sagar Parikrama

- INSV Tarini entered Fremantle (Australia) port today during it's maiden voyage to circumnavigate the globe. This is the first-ever Indian circumnavigation of the globe by an all-women crew.

About Navika Sagar Parikrama:

- The voyage of Navika Sagar Parikrama will begin from a coast in Goa in the first week of September 2017
- The journey will be finishing around March 2018
- The entire distance will be covered in five legs and it will have stop overs at four ports for replenishment of ration and repairs as necessary. the ports are as follows: Fremantle (Australia), Lyttelton (New Zealand), Port Stanley (Falklands) and Cape Town (South Africa)
- The project is considered essential towards promoting Ocean Sailing activities in the Indian Navy along with showcasing the Government's support for empowering women.

About the ship (INSV Tarini)

- INSV Tarini is a 55 foot sailing vessel has been built in India by M/s Aquarius Shipyard Pvt Ltd, Goa
- It was inducted into the Indian Navy recently in February 2017
- INSV Tarini is the sister vessel of INSV Mhadei
- It has a mast of 25 metres which has been custom-built by a South Africa manufacturing concern for sailing in extreme conditions
- It carries a suite of six sails, including a main sail, head sails (Genoa and stay sails), downwind sails and storm sail
- It has Raymarine navigation suite and an array of satellite communication systems for perfect navigation anywhere in the world

Main aim of this expedition:

- **Nari Shakti.** In consonance with the National policy to empower women to attain their full potential, the expedition aims to showcase 'Nari Shakti' on the world platform. This would also help to discard the societal attitudes and mindset towards women in India by raising visibility of participation by women in challenging environment.
- **Environment and Climate Change.** Sailing encourages the use of environment friendly non-conventional renewable energy resources which affects the life of women. The expedition thereby aims at harnessing the energy to optimise the livelihood of the women onboard.

- **Make in India.** The voyage also aims to show case the 'Make in India' initiative by sailing onboard the indigenously built INSV Tarini.
- **Meteorological/ Ocean/ Wave Data Observation.** The crew would also collate and update Meteorological/ Ocean/ Wave data on a daily basis for subsequent analysis by research and development organisations.
- **Marine Pollution.** The crew would monitor and report marine pollution on the high seas.
- **Interaction with Local PIOs.** Since the expedition aims to promote Ocean Sailing and the spirit of adventure, the crew would interact extensively with the local PIOs at the various port halts

Gram Samridhi Evam Swachhata Pakhwada

- Gram Samridhi Evam Swachhata Pakhwada was held from 1st October to 15th October, 2017. On this occasion Swachh Gram Portal has released data regarding cleanliness drive in the village.

Main highlights of the data released by Swachh Gram portal:

- Over 4.75 lakh cleanliness drives were taken up in villages during this period. 38,283 villages were declared open defecation free, 5.98 lakh individual households latrines completed and initiatives for Solid and Liquid Waste Management undertaken across Gram Panchayats.
- Thrust was placed on skill development among youth and total of 1404 Skill Raths were launched in different parts of the country to register demand through the Kaushal Panji App for skill training.
- A total of 1.35 lakh youth were placed during job fairs organised during this period.
- Over 4 lakh photographs of events organized during this period have already been uploaded in Swachh Gram Portal.
- Public accountability thrust was seen at Panchayat offices, with complete disclosure of beneficiary lists and works under execution with details.
- Large scale Grih Parvesh of PMAY (Gramin) Houses and Bhumi-pujan for construction of new houses were undertaken during this period.
- Selection of Social Auditors from among Self Help Group women was also undertaken in 92,000 Gram Panchayats where Deendayal Antyodaya Yojana-National Rural Livelihood Mission is working.
- Special efforts were made in the 50,000 Gram Panchayats that States have been selected purposively by State Governments for coverage under Mission Antyodaya.
- Community Resource Persons from Deendayal Antyodaya Yojana-National Rural Livelihood Mission along with other Panchayats and village representatives undertook a ranking of these 50,000 Gram Panchayats on parameters of physical infrastructure, human development and economic activity.
- Grading of these 50,000 Gram Panchayats/5000 rural clusters will be available in the public domain before the end of October on Ministry of Rural Development's site. These clusters include RURBAN clusters, Sansad Adarsh Gram Yojana villages, villages which have become open defecation free, villages with strong social capital in the form of Self Help Groups and Gram Panchayats with strong Panchayat leadership.

About Gram Samridhi Evam Swachhata Pakhwada:

- Gram Samridhi Evam Swachhata Pakhwada was an effort to prepare the Gram Panchayat Development Plan through extensive community participation specially of women and youth. The recommendations of this plan will be given top most priority in finalization of Annual Action Plan across schemes and programmes of various Ministries and Departments.

BharatMala Project

- Cabinet approved 5.35 lakh crore to build 34,800 km of roads nationwide, including in border and coastal areas. The Centre had announced road construction, called BharatMala Pariyojana, in a bid to encourage the economy as private investment remains moribund.

- National Highways suffer from the deficiencies of inadequate capacity, weak pavement, poor riding quality, distressed bridges, unbridged level crossings, congested cities, lack of wayside amenities and other safety measures.
- There is very little participation of private sector in road development in India because of long gestation period and low-returns. Private investment in roads is not satisfactory.
- There was no stable policy on highway development in the country.
- There is shortage of funds for the construction and maintenance of roads.

About Bharatmala:

- Bharatmala will look to improve connectivity particularly on economic corridors, border areas and far flung areas with an aim of quicker movement of cargo and boosting exports.
- The project is expected to create nearly 100 million man days of jobs during the road construction and subsequently 22 million jobs as a result of the increased economic activity across the country.
- The construction will be billed via several routes including debt funds, budgetary allocation, private investment, toll operator transfer model etc.
- Bharatmala includes economic corridors of around 9,000 km, inter-corridor and feeder routes of around 6,000 km, 5,000 km roads under the National Corridors Efficiency Program, border and international connectivity roads of around 2,000 km, coastal and port connectivity roads of around 2,000 km, expressways of around 800 km and 10,000 km of NHDP roads. The total length in phase 1 comes to around 34,800 km.
- Bharatmala project will start in Gujarat and Rajasthan, followed by Punjab and subsequently traversing the Himalayan belt through Jammu and Kashmir, Himachal Pradesh, Uttarakhand, parts of Uttar Pradesh, Bihar, West Bengal, Sikkim, Assam, Arunachal Pradesh, Manipur (next to the Indo-Burmese border) and then to Mizoram. Northeastern states have been given special focus in the project and international trade is a key aspect as well.
- The newer roads are expected to increase the speed of vehicles and decrease supply chain costs from the current average 18 per cent to six per cent. The Union Cabinet gave the nod to two big ticket infra projects on Tuesday with an outlay of Rs 6.92 lakh crore out of which Bharatmala Pariyojana shared Rs 5.35 lakh crore. It will also subsume 10,000 km roads under the National Highway Development Project (NHDP) program.
- While the country reels under the impact of GST and demonetisation, Gadkari presented a meticulous plan to cut down costs and create jobs.
- The main agencies tasked with the construction are the National Highways Authority of India, National Highway and Industrial Development Corporation and state public works departments.

Supreme Court defer hearing on Article 35A

- The Centre convinced the Supreme Court to defer hearing on petitions challenging the special status granted to Jammu and Kashmir.

What is Article 35A?

- It is a constitutional provision that allows the Jammu-Kashmir assembly to define permanent residents of the state. According to the Jammu-Kashmir constitution, a Permanent Resident is defined as a person who was a state subject on May 14, 1954, or who has been residing in the state for a period of 10 years, and has "lawfully acquired immovable property in the state".
- It was brought in by a presidential order in 1954 in order to safeguard the rights and guarantee the unique identity of the people of Jammu-Kashmir. Only the Jammu-Kashmir assembly can change the definition of PR through a law ratified by a two-thirds majority.

Analysis:

- The Article has been discriminatory among its own population, hence has come under questioning. A resident woman marrying outside the state is no longer considered a permanent resident, thus she and her children lose their status. The same is not applicable to male members, who may marry outside the state. Further, residents of the state since Independence, having migrated from Pakistan, are non-residents, while those who immigrated to Pakistan are.

- Legally, the Article can be questioned as it denies residents their basic rights under the Constitution. The Articles of the Constitution which are violated are Article 14 concerning equality, Article 15 concerning discrimination on basis of place of birth, Article 16 dealing with equality of opportunity in matters of public employment and reservations and Article 19, which is right to free speech and right of life and liberty.
- In local parties there is a fear that it would lead to further erosion of J&K's autonomy and trigger demographic change in Muslim majority valley. Political parties say Kashmir resolution lies in greater autonomy; separatists fan paranoia against possibility of Hindus 'flooding' the valley.
- Article 35A remains as one of the most divisive provisions in the Constitution as mere talk of any alteration to it provokes sharp reactions from parties across the aisle.

Nod for GM mustard

- Genetic Engineering Appraisal Committee (GEAC) has cleared the controversial transgenic mustard, DMH-11, for commercial cultivation.

What is Genetic Engineering Appraisal Committee (GEAC)?

- It is established under Ministry of Environment, Forests and Climate Change
- It is the apex body for approval of activities involving large scale use of hazardous microorganisms and recombinants
- It is also responsible for approval of proposals relating to release of genetically engineered organisms and products including experimental field trials

About GM Mustard:

- The GM variant, called DMH11 (Dhara Mustard Hybrid 11), is said to deliver 25-30% higher mustard-seed yields compared to the best "check" varieties currently being grown in the country.
- Hybrids are normally obtained by crossing two genetically diverse plants from the same species. The first-generation offspring resulting from it has higher yields than what either of the parents is individually capable of giving. But there is no natural hybridisation system in mustard, unlike in, say, cotton, maize or tomato. This is because its flowers contain both the female (pistil) and male (stamen) reproductive organs, making the plant naturally self-pollinating. To the extent that the egg cells of one plant cannot be fertilised by the pollen discharged from the stamen of another, it restricts the scope for developing hybrids. Researcher has created a viable hybridisation system in mustard using GM technology. And use of GM technology is main reason of its opposition.
- The hybrid went through Biosafety Research Level-1 (BRL-1) tests in 2011-12 and 2012-13, in Rajasthan, under the coordination of the National Research Centre for Rapeseed-Mustard at Bharatpur, and BRL-2 tests at the Indian Agriculture Research Institute in Delhi and the Punjab Agricultural University in the 2014-15 season.
- The institute sought a final approval from the GEAC in December for "environmental release" of the crop. But even before the application process was initiated, anti-GM NGOs and activists cutting across ideological lines began protests, in a recreation of the agitation against Bt brinjal, also a GM crop, in 2010.
- In 2010, Bt brinjal had got the final approval from the GEAC but the then Environment Minister put an indefinite moratorium on that decision which still holds.

Analysis:

- Genetically-engineered crops can cause insecticides to build up in the soil, affect the food chain, transfer genes to wild relatives and contaminate natural crops.
- 'Gene stacking' in GM crops is a major concern, more so for mustard/rapeseed. Stacking is what happens when more than one GM trait is found in the same plant, as a result of cross-pollination in the field. The agronomic and ecological impact of cumulative transgene stacking is poorly understood and this may lead to farmers using more herbicides, potentially resulting in increased damage to biodiversity. It can also lead to 'the gradual development of 'weediness' in native species'. If a neighbouring farm also unknowingly used GM-contaminated seed, this would be an obvious way for stacking to occur.

- The genetically-modified mustard is, in reality, a hybrid. And, like any other hybrid it requires to be cultivated under more intensive farming practices. At a time when sustainable farming and low-input agriculture are becoming the buzzwords, it is surprising that agricultural scientists continue to recommend crop varieties that will end up doing more harm to the environment and crop fields.
- GM mustard will require almost double the quantity of fertiliser and water, thereby accentuating the sustainability barriers that green revolution areas already faced.
- Health concerns include: allergenicity; gene transfer, especially of antibiotic-resistant genes, from GM foods to cells or bacteria in the gastrointestinal tract; and 'outcrossing', or the movement of genes from GM plants to conventional crops, posing indirect threats to food safety and security.
- GM mustard can affect honeybees directly and indirectly through effecting flowering and pollen production.
- GM mustard is the first food crop to have applied for commercialisation after the indefinite ban on the GM brinjal in 2010.
- But on the positive side, The opponents of GM mustard point out that cotton is not a food crop, while mustard is India's largest edible oil-yielding crop. However, there are many inconsistencies in this argument too. First, cotton-seed yields not only fibre (lint), but also oil and oilcake (meal) fed to animals. Cotton-seed oil is, in fact, the second largest produced edible oil in the country (1.4 million tonnes) after mustard (2 million tonnes). That makes cotton no less of a food crop. And since 95 per cent of India's cotton production is today Bt, its allegedly harmful toxins would already have been consumed directly or indirectly during the last decade and more.
- India annually imports 3 million tonnes of soyabean oil and another 0.4 million tonnes of rapeseed oil, which are predominantly GM. So the criticism of this seems to be misinformed.
- Complaints against a less-than-robust regulatory environment for genetically modified organisms in the country are genuine. There is lack of transparency as well as conflict of interest in the system. The Genetic Engineering Approval Committee, which is responsible for approving large-scale releases and commercialisation of GMOs, functions under the Ministry of Environment and Forests and is not entirely independent. The case of the Review Committee on Genetic Manipulation that supervises and clears research activities and also small-scale field trials is even more stark. It is part of the Department of Biotechnology, whose primary task is to promote biotechnology. DBT therefore is the promoter as well as the regulator. On several occasions, developers of transgenic crops have also been members of regulatory committees. Government plan to merge various authority into single has not fulfilled yet. To create more accountable system such steps needed to be taken.

SAATHI

- The Ministry of Power along with the Ministry of Textiles have launched its new initiative named Sustainable and Accelerated Adoption of efficient Textile technologies to help small Industries.
- The Powerloom sector in India is predominantly an unorganized sector and has a large number of micro and small units which produce 57 percent of the total cloth in the country. Most of Powerloom units in this country, use obsolete technology.
- Upgradation of Powerlooms as part of Power Tex India will lead to higher productivity, better quality and more than 50 percent additional value realisation.

Mains highlights:

- Under the initiative, Energy Efficiency Services Limited (EESL), a public sector entity under the administrative control of Ministry of Power, would procure energy efficient powerlooms, motors and repair kits in bulk and provide them to the small and medium powerloom units at no upfront cost.
- The SAATHI initiative of the Government will be jointly implemented by EESL and the office of the Textile Commissioner on a pan-India basis.
- There will be cluster wise demonstration projects and workshops in key clusters such as Erode, Surat.

Analysis:

- The government expects that the efficient equipment would result in energy savings and cost savings to the unit and the unit would repay in installments to EESL over a 4 to 5 year period.

Unit owner neither has to allocate any upfront capital cost to procure these equipment nor does it have to allocate additional expenditure for repayment as the repayments to EESL are made from the savings that accrue as a result of higher efficiency equipment and cost savings.

Adopt a Heritage Scheme

- Seven shortlisted companies were given 'Letters of Intent' for fourteen monuments under 'Adopt a Heritage Scheme' of Ministry of Tourism at the closing ceremony of 'Paryatan Parv' at Rajpath Lawns, New Delhi. These companies will be the future 'Monument Mitras' who would associate pride with their CSR activities.
- Adopted Monuments are : a) Jantar Mantar, Delhi; b) Sun Temple, Konark; c) Raja Rani Temple, Bhubaneswar; d) Ratnagiri Monuments, Jajpur, Odisha; e) Hampi, Karnataka; f) Leh Palace, Jammu & Kashmir; g) Qutub Minar, Delhi; h) Ajanta Caves, Maharashtra; i) Mattancherry Palace Museum, Kochi; j) Safdarjung Tomb, Delhi; k) Gangotri Temple Area and Trail to Gaumukh; l) Mt. Stok Kangri, Laddakh, Jammu and Kashmir; m) Agrasen ki Baoli, Delhi; n) Purana Quila, Delhi.

What is 'Adopt a Heritage Project'?

- ADOPT A HERITAGE 'Apni Dharohar, Apni Pehchaan' is a unique endeavour of Ministry of Tourism in close collaboration with Ministry of Culture and Archaeological Survey of India (ASI) which envisages developing monuments, heritage and tourist sites across India and making them tourist friendly to enhance their tourism potential and cultural importance, in a planned and phased manner.
- Scheme was launched on World Tourism Day i.e. 27th September, 2017.

Objectives of the project are to:

- Develop basic tourism infrastructure in and around heritage monuments and any other tourist sites.
 - Inclusive tourist experience for heritage site / monument or tourist site.
 - Promote cultural and heritage value of the country to generate livelihoods of local communities of respective heritage site / monument/ tourist site.
 - Enhance the tourist attractiveness in a sustainable manner by developing world class infrastructure at heritage site / monument or tourist site.
 - Create employment through active involvement of local communities.
 - Harness tourism potential for its multiplier effects in employment generation and economic development.
 - Develop sustainable tourism infrastructure and ensuring proper Operations and Maintenance therein.
 - For management under the project, organization such as Oversight and Vision Committee, Implementation Committee, Monument Committee etc. have been constituted.
 - Public / Private sector companies or individuals successfully selected through the process of 'Vision Bidding', on a competitive basis for the project shall be called as Monument Mitras.
 - This project is initially proposed to be implemented for 5 years subject to the review of the performance at any time.
 - In case of unsatisfactory performance and non-compliance of guidelines the MoU is liable to be terminated.
- Under the project Monuments have been categorized in three as Green, Blue and Orange

INTERNATIONAL AFFAIRS

Xi crowned as 'Linxiu'

- After less than five years as China's leader, Xi Jinping has become one of the most powerful people in the nation's modern history and crowned as 'Linxiu'.

What is linxiu?

- The title doesn't come with particular powers, but it gives Mr. Xi special stature. By giving Mr. Xi the honor in a formal document, senior Communist Party officials have shown that, willingly or not, they've bowed to his dominance.
- Mr. Xi had already built up a lot of power since he became the national leader in 2012. But according to him, he is in the middle of a hard, long-term struggle to transform China's economy, streamline the military and clean up the Communist Party. Mr. Xi's new title is meant to reinforce his authority to push through policies in the face of doubts and foot dragging.
- The term "core leader" goes back only a few decades, and has been given to four leaders: Mao Zedong, Deng Xiaoping, Jiang Zemin and now Mr. Xi. Mao, though, never used it to describe himself.
- After him, it goes back to the upheavals of 1989, when party elders made Mr. Jiang the Communist Party general secretary after deposing Zhao Ziyang. Deng tried to strengthen Mr. Jiang by calling him the uncontested "core leader" of his generation.

Difference between Mao, Deng and Xi:

- Mao and Deng established their tremendous personal authority through decades of revolutionary struggle and war. They didn't need formal titles to exude dominance, and they made some of their fateful decisions — like Mao's launching of the Cultural Revolution or Deng's decision to use armed force against protesters in 1989 — outside conventional political channels.
- But Mr. Xi's power is less personal than Mao's or Deng's. By the time Mr. Xi rose in the party, Chinese politics had become more settled and tied to procedures, and he has been skilled at creating and remaking rules and institutions to magnify his power. He has done that, for example, by creating leading groups under him to make policy, and by giving sharper teeth to the party's discipline agency.

Analysis:

- China is facing daunting economic challenges and foreign policy tensions, and needs a singularly strong core leader to steer the country through difficult changes. This status is meant to help Mr. Xi's fight against corruption.
- Mr. Xi could alter the informal retirement rules for the Politburo Standing Committee, the top rung of power.
- Mr. Xi's elevation to core leader is a chip that he can use when negotiating the makeup of the next leadership. It does not mean that Mr. Xi will get everything he wants, but it adds to his bargaining power.

SCIENCE AND TECHNOLOGY

Central Pollution Control Board Eases Norms for Sewage Treatment Plants

- The Central Pollution Control Board (CPCB) has relaxed standards for upcoming sewage treatment plants (STPs), including those to come up on extremely polluted stretches of the Ganga.

Main changes in the norm:

- A notification by the Union Ministry of Environment abandoned the government's 2015 proposal of a 10 mg/litre limit for biochemical oxygen demand (BoD), a marker for organic pollutants, in treated water.
- STPs coming up after June 2019 – except in major state capitals and metropolitan cities – need to only conform to 30 mg/litre of BoD. These include proposed STPs to treat sewage in stretches of the river downstream of Haridwar, including Kanpur and Allahabad in Uttar Pradesh, the Hindu reported.
- However, new STPs at state capitals have to cap BoD at 20 mg/litre.
- Plants in Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir, Andaman and Nicobar islands, Daman & Diu, Lakshwadeep and Dadra and Nagar Haveli also don't need to conform to higher sewage-treatment criteria.

About Central Pollution Control Board (CPCB):

- The Central Pollution Control Board (CPCB), statutory organisation, was constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974. Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.
- It serves as a field formation and also provides technical services to the Ministry of Environment and Forests of the provisions of the Environment (Protection) Act, 1986. Principal Functions of the CPCB, as spelt out in the Water (Prevention and Control of Pollution) Act, 1974, and the Air (Prevention and Control of Pollution) Act, 1981, (i) to promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution, and (ii) to improve the quality of air and to prevent, control or abate air pollution in the country.
- Air Quality Monitoring is an important part of the air quality management. The National Air Monitoring Programme (NAMP) has been established with objectives to determine the present air quality status and trends and to control and regulate pollution from industries and other source to meet the air quality standards. It also provides background air quality data needed for industrial siting and towns planning.
- Besides this, CPCB has an automatic monitoring station at ITO Intersection in New Delhi. At this station Resirable Suspended Particulate Matter (RSPM), Carbon Monoxide (CO), Ozone (O₃), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂) and Suspended Particulate Matter (SPM) are being monitored regularly. This information on Air Quality at ITO is updated every week.

Ichthyosaur fossil

- Scientists in India have discovered a 152 million-year-old fossil of an ichthyosaur - an extinct marine reptile - in the western state of Gujarat.
- This is the first time an ichthyosaur fossil has been discovered in India.
- The fossil was found inside rocks from the Mesozoic Era, which ran between 252 and 66 million years ago, in the Kutch desert.
- Only parts of the skull and tail bones were found to be missing.
- This is a remarkable discovery not only because it is the first Jurassic ichthyosaur record from India, but also it throws light on the evolution and diversity of ichthyosaurs in the Indo-Madagascan region and India's biological connectivity with other continents in the Jurassic

About Ichthyosaur:

- Fossil records of ichthyosaurs, which means 'fish lizards' in Greek, have been found in North American and Europe previously. However, in the Southern Hemisphere, they have mostly been limited to South America and Australia.
- Researchers including those from the University of Delhi and University of Erlangen-Nuremberg (FAU) in Germany have found what they believe to be the first Jurassic ichthyosaur in India, from the Kutch area in Gujarat.
- The near-complete skeleton, nearly 5.5 metre long, is thought to belong to the Ophthalmosauridae family, which likely lived between around 165 and 90 million years ago.

- It was found among fossils of ammonites and squid-like belemnites, and its tooth wear patterns suggest it predated such hard, abrasive animals.

Supreme Court Bans Dirty Fuel to Fight Pollution in Delhi

- The Supreme Court has banned the use of petroleum coke -- a cheap but dirty fuel -- in New Delhi's neighbouring states, the latest crackdown aimed at improving air quality in one of the most polluted cities in the world.
- The Supreme Court also ordered a ban on the sale and use of furnace oil -- a polluting refinery by-product -- in industries in the states of Haryana, Uttar Pradesh and Rajasthan starting November 1.
- Furnace oil and pet-coke are the dirtiest by-products from the refinery process and use of these fuels was banned in Delhi in 1996.
- But glass manufacturing units and other industries around the Indian capital continue to be reliant on them for their energy needs.
- Delhi experiences suffocating smog every year around Diwali when farmers in north India burn the stubble left behind after the harvest and revellers let off smoke-spewing firecrackers.

Analysis:

- Petcoke is a byproduct created when bitumen found in tar sands, is refined into crude oil. Bitumen contains a higher number of carbon atoms than regular oil and it's these atoms, extracted from large hydrocarbon molecules using heat, that go on to form petcoke.
- High grade petcoke which is low in sulphur and heavy metals can be used to make electrodes for the steel and aluminum industry. But the majority of petcoke manufactured globally, approximately 75-80%, is of a much lower grade, containing higher levels of sulphur and heavy metals and is used solely as fuel. The majority of petcoke produced in the U.S. is exported to China – the world's largest consumer of coal – to feed its many coal-fired power stations.
- Petcoke is an extremely stable fuel which means there is little risk of combustion during transportation, but due to its high carbon content when it does combust it releases up to 10% more CO₂ per unit of energy than normal coal. That's higher than almost any other energy source in existence and makes petcoke a huge contributor to the creation of greenhouse gases.
- It's not just carbon that makes petcoke an environmental concern. Increased pollution controls are required during petcoke combustion to capture the excess sulphur found in low grade petcoke. The heavy metal content of petcoke has also left many worried, both at the effects of releasing it into the air when petcoke is burned, and the implications it has for the local environment during storage.
- Despite the environmental concerns connected to the manufacture and use of petcoke, it remains popular due to its cost effectiveness. It's inexpensive to manufacture yet easily exported, and provides an attractive source of cheap fuel for developing nations. As long as this win-win relationship between importer and exporter continues, it's unlikely that we'll see production slow any time soon.

kala-azar

- Parasite *Leishmania donovani* is believed to be responsible for the dreaded infection.
- People get infected when bitten by an insect called the sandfly, which harbours the disease-causing parasite.

About Kala-azar:

- Kala-azar is a parasitic disease that is confined to humans, meaning that unlike, say, bird flu, there is no other animal that harbours the infection in Asia.
- Endemic to the Indian subcontinent in 119 districts in four countries (Bangladesh, Bhutan, India and Nepal), India itself accounts for half the global burden of the disease.
- If untreated, kala-azar can kill within two years of the onset of the ailment, though the availability of a range of drugs for almost a century has meant that less than 1 in 1,000 now succumb to the disease.

- According to numbers from the Union Health Ministry, 2016 was the first year that no kala-azar death was reported in India.
- Experts, however, note that like malaria and several other vector-borne diseases in India, the government only considers lab-confirmed and officially registered deaths and therefore, frequently underestimates both caseload and mortality.
- Historically, a 20-day treatment schedule with sodium stibogluconate (SSb) injection and the spraying of the malarial insecticide dichlorodiphenyltrichloroethan (DDT) in houses and surroundings were the only weapons against the disease.
- When DDT was used as part of the malaria eradication programme, very few cases of kala-azar were reported. When the use of DDT was stopped a few years later, there was an increase in the number of kala-azar cases.
- Over a period of time, resistance to the only drug (SSb injection) led to frequent outbreaks and fatalities and the Union Health Ministry, which had committed to eliminating kala-azar by 2010, revised it to 2015. Bangladesh, India and Nepal committed to eliminate the disease from the region, where elimination (as opposed to eradication) is defined as no more than one case per 10,000 population at the upazila level in Bangladesh, sub-district (block PHC) level in India and district level in Bhutan and Nepal.

Concentration of CO₂ in atmosphere hits record high

- According to recently released report of UN, the concentration of carbon dioxide in the atmosphere increased at record speed last year to hit a level not seen for more than three million years.

Important points of the report:

- Concentrations of carbon dioxide in the atmosphere surged at a record-breaking speed in 2016. Globally averaged concentrations of CO₂ reached 403.3 parts per million in 2016, up from 400.00 ppm in 2015.
- The last time Earth experienced similar CO₂ concentration rates was three to five million years ago, when the sea level was up to 20 metres (66 feet) higher than now.
- This acceleration occurred despite a slowdown – and perhaps even a plateauing – of emissions because El Niño intensified droughts and weakened the ability of vegetation to absorb carbon dioxide. As the planet warms, El Niños are expected to become more frequent.
- The increase of 3.3 ppm is considerably higher than both the 2.3 ppm rise of the previous 12 months and the average annual increase over the past decade of 2.08ppm. It is also well above the previous big El Niño year of 1998, when the rise was 2.7 ppm.
- This study uses monitoring ships, aircraft and stations on the land to track emissions trends since 1750, said carbon dioxide in the atmosphere is now increasing 100 times faster than at the end of the last ice age due to population growth, intensive agriculture, deforestation and industrialisation.
- The last time Earth experienced similar CO₂ concentration rates was during the Pliocene era (three to five million years ago), when the sea level was up to 20m higher than now.

Analysis:

- Without rapid cuts in CO₂ and other greenhouse gas emissions, world is heading for dangerous temperature increases by the end of this century, well above the target set by the Paris climate change agreement.
- The momentum from the Paris accord in 2015 is faltering due to the failure of national governments to live up to their promises. Environment will show the gap between international goals and domestic commitments leaves the world on course for warming well beyond the 2C target and probably beyond 3C.

BadRabbit ransomware

- A new kind of malware was spreading around Europe. The apparent ransomware which researchers are calling Bad Rabbit bubbled up in Russia and Ukraine and appears to also be affecting Turkey and Germany, though spread isn't fully known at this time.

- Initial targets include Ukraine's Ministry of Infrastructure and Kiev's public transportation system. The Russian news service Interfax also issued an official update stating that it had been hacked and that it was working to restore its systems.
- This malware also caused flight delays at Odessa airport in southern Ukraine and disrupted electronic payments in the Kiev metro.

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 in tact.

QUICK FACTS

- Indira Gandhi National Integration Award conferred to: **T.M. Krishna**
- Winner of 2017 Man Booker Prize: **George Saunders**
- United Nations Day is observed on : **24 October**
- First country to leave International Criminal Court: **Burundi**
- 11th World Congress on Adolescent Health was held in : **New Delhi**
- New representative of centre in Jammu and Kashmir: **Dineshwar Sharma**