



An Institute for Civil Services

CURRENT AFFAIRS

ANALYST

— WEEKLY —

Week - 1

MAY, 2019

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The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK-1 (MAY, 2019)

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SECTION: A
(MAINS)

CURRENT AFFAIRS

CONTRACT ENFORCEMENT IN INDIA

CONTEXT

- The Department for Promotion of Industry and Internal Trade (DPIIT) is working towards pushing India to the top 50 countries in the Ease of Doing Business Index.
- India currently ranks 77 in the World Bank's Ease of Doing Business Index, jumping by 65 place in the 2014-18 periods.
- DPIIT intends to improve processes related to property registration, payment and refund of taxes, enforcement of contracts and the insolvency framework.
- India ranks below 100 on some of the above parameters.

◎ ABOUT:

- The importance of an effective, efficient and expeditious contract enforcement regime to economic growth and development cannot be overstated.
- A clear and certain legislative and executive regime backed by an efficient judiciary that fairly and punctually protects property rights, preserves sanctity of contracts, and enforces the rights and liabilities of parties is a prerequisite for business and commerce.

◎ BACKGROUND:

- Ease of Doing Business Index includes the following Indicators: - Starting a business, Dealing with construction permits, Getting electricity, Registering property, Getting credit, Protecting minority investors, Paying taxes, Trading across borders, Resolving insolvency and Enforcing contracts.
- India's Position on Enforcing contracts indicator over the years has shown improvement from 186 in 2014 to 163 in the 2018 report.
- However, in comparison with its BRICS counterparts and sizeable GDP based market economy, a greater room for improvement is discreetly felt.

◎ ANALYSIS

Importance of just and efficient contract enforcement:

- An effective legal system provides the necessary level playing ground for smaller firms.
- A poor legal system tends to centralize industries, wherein the firms tend to integrate with backward and forward linkages.
- This results in concentration of wealth as consumers prefer capital-intensive large firms over smaller labour-intensive rivals.
- This reduces employment and perpetuates inequality.
- Another effect of a poor contract enforcement mechanisms is the spurt of informal and often illegal channels of dispute resolution.

- These make use of local leaders and under-the-table dealings to help settle disputes.
- Keeping aside the issue of biased and poor quality decisions, this also brings undue power into the hands of middlemen and facilitators.
- This, in turn, creates problems such as increased corruption and the undermining of the rule of law.

These direct and indirect problems and the market inefficiency associated with them underline the need to reform the legal system. Though some measures have recently been undertaken, they fail to address the deeper issue of an overburdened and understaffed judiciary.

Why is India still lagging behind on Enforcing contracts?

- India ranked 172nd out of 190 countries in the area of Enforcing Contracts in the World Bank's Ease of Doing Business report 2017 with an average time of nearly 4 years required for enforcement.
- As a further indicator of delayed justice, of the cases disposed since 2000 by district and lower courts, 81.8% took more than 5 years and 57% more than 10 years.
- In four high courts where sufficient data was available, 87% cases were disposed of in 10-15 years, and only 5% in less than 5 years.
- As highlighted by the Economic Survey, addressing such deep-rooted problems will only be possible through extensive cooperation between the organs of the government—"cooperative separation of powers"
- Although the government has taken steps to improve contract enforcement, economic activity is getting affected by high pendency and delays across the legal system. The backlog in High Courts by the end of 2017 was around 3.5 million cases.
- Delays of economic cases (company cases, arbitration cases and taxation cases) in courts are leading to stalled projects, legal costs, contested tax revenues, and consequently reduced investment. Delay in adjudication increases market uncertainty which hurts production cycle.

- Since production cycle is slowed down, the invested amount is unable to service its debts. The Lenders, in turn, are unable to get their dues back. This aggravates to non-performing asset scenarios.
- The entire vicious cycle is roped into a dwindling economy and leads to a stagnation in economic performance. Low savings - low investments - low job growth fails to add up, in any manner, to the productivity cycle.
- Delay in arbitration and adjudication also escalates cost overruns, this not just hurts investor sentiments but also squeezes the public purse.
- Since governments are duty bound to spend on public utility and other developmental aspects, they resort to an increase in fiscal deficit. This factor becomes a prime reason in boosting trade deficit - thus in the comprehensive terms - lowers the credit rating of the sovereign economy.
- Delays in power, roads, and railways projects led to an increase in almost 60% of the project costs.

What can be done?

- The government and the judiciary must coordinate to introduce reforms to facilitate ease of doing business.
- Judicial capacity should be strengthened in the lower courts to reduce the burden on higher courts.
- The tax department must limit its appeals, given that their success rate is less than 30% at all three levels of judiciary (Appellate Tribunals, High Courts, and Supreme Courts).
- The government must increase its expenditure on the judiciary, improve the courts case management and court automation system, and create subject specific benches.

Role which the Commercial Courts, Commercial Division and Commercial Division of High Courts and acts can play:

- A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of the business.
- The introduction of the Pre-Institution Mediation process will provide an opportunity to the parties to resolve the commercial disputes outside the ambit of the courts.
- This will be facilitated through the authorities constituted under the Legal Services Authorities

Act, 1987.

- The proposed amendment provides for establishment of Commercial Courts at district Judge level for the territories over which respective High Courts have ordinary original civil jurisdiction i.e. in the cities of Chennai, Delhi, Kolkata, Mumbai and State of Himachal Pradesh.

What are other the available alternative modes of dispute resolutions?

- Alternative Dispute Resolution (ADR) mechanisms available to boost contract enforcement system are: - negotiation, arbitration, conciliation and mediation.

• Needed reforms in Justice System?

- ▶ The preliminary step should be to ensure that all legislation, amendments and subordinate legislation are available together in one place and searchable by subject matter.
- ▶ Once completed, all existing individual laws can be re-arranged to make a meaningful subject-wise compilation, and permit us to assess and address problems of over regulation in a structured and coherent fashion.
- ▶ Repeal all redundant laws
- ▶ Changes to procedural laws in line with the principles and underlying thinking of the Commercial Division Bill.
- ▶ Nearly 67% of litigants in civil cases are using the judicial system for land/property related cases. The difficulty in establishing ownership also holds back the economy.
- ▶ There is thus a clear need to bring in land reforms, accompanied by modernization in the area of maintenance of land record.
- ▶ Establish a judicial performance index. Such an index could be established to help High Courts and High Court Chief Justices keep track of performance and process improvement at the District Courts and subordinate levels for reducing delay. This would require fixing non-mandatory time frames for different types of cases as broad guidelines to benchmark when a case has been delayed.
- There is a need to create a separate administrative cadre in the judiciary to manage the system.
- Implement e-Courts, entail facilities such as e-cause lists, e-payments, e-filing and e-summons.



Practice Question

- According to the Ease of Doing Business Index Report, enforcing a contract in India can take 1445 days and 30% of the claim value as cost. For an economy which eyes building its growth story on make in India initiative, contract enforcement laggard is a poor story. Discuss reasons for this low performance and suggest ways to improve the same.

DIGITAL INFRASTRUCTURE IN NATIONAL DEVELOPMENT

CONTEXT

- The Aadhaar has worked as a digital infrastructure backbone helping governments in India to roll out several real-time initiatives and service delivery capabilities for citizens and enterprises alike, said Nandan Nilekani, chief architect of Aadhaar at FICCI's National Executive Committee Meeting.
- The Aadhaar, serving as an electronic know-your-customer (KYC) tool has triggered massive customer additions in the country's financial and telecom sectors and similar explosive growth is expected across other segments as well in the years to come, said Mr. Nilekani.

● ANALYSIS:

What is Digital infrastructure?

- It is the collection of technological and human components, networks, systems, and processes that contribute to the functioning of an information system.
- These digital infrastructures often evolve into larger and more complex structures such as the Internet.

Evolution of Digital Infrastructure in India:

- 1976- National Informatics Centre was established, and has since emerged as a prime builder of e-Governance applications up to the grassroots level as well as a promoter of digital opportunities for sustainable development.
 - ▶ Almost all Indian-government websites are developed and managed by NIC.
 - ▶ Through its ICT Network-NICNET, it has institutional linkages with all the Ministries of the Central and state Government and about 708 District Administrations.
 - ▶ It is facilitating improvement and transparency in government services and promoting decentralized planning.
 - ▶ It connected all district headquarters with Very Small Aperture Terminal (VSAT) services.
- 1990s-Computerization of Railway's PRS, Initiatives by state governments e.g. Gyandoot (information sharing) in Madhya Pradesh, Bhoomi (land record) in Karnataka, Akshaya (e-literacy) in Kerala.
- 2006-National e-Governance Policy (NeGP) unveiled:
 - ▶ 31 Mission Mode Projects identified for according priority to the e-Government initiatives.
 - ▶ Core infrastructure components:
 - Common Service Centers (CSC) for service

delivery.

- Wide Area Networks (WAN) for connectivity.
- Data Centres for storing data and programs.
 - ▶ Process re-engineering, change management and project management.
 - ▶ Web-enabled delivery of services.
 - ▶ Emphasis on Public-Private Partnership (PPP) wherever feasible.
- 2015- Digital India program launched:
 - ▶ The program has the vision to transform India into a digitally empowered society and knowledge economy.
 - ▶ Three primary focus areas of this program are:
 - Creation of Digital Infrastructure
 - Electronic delivery of services and digital literacy
 - Empowerment of citizens with e-participation in governance.

Digital infrastructure for economic development:

- Goods and Services Tax (GST): Its roll out has increased the tax collection. A crucial factor in ensuring its smooth implementation will be a robust technology infrastructure:
 - ▶ Determination of Tax: Companies need to introduce a system which can facilitate calculating right amount of GST and take in account all rules set out by the Government.
 - ▶ Compliance: Tax technology helps companies to make sure that there are periodic updates and uploads of sales and purchase of data with reconciliation for tax payments and credits. This will bring transparency and minimize tax evasion.
 - ▶ Reporting and Analysis: Tax technology provides audit trail of transactions and required

reports which are useful in internal analysis and audits.

- ▶ Digital payments: Initiatives like- cards, internet banking, Mobile banking, Unified Payments Interface, Mobile Wallets and Aadhaar Enabled Payment System have made financial services more affordable and inclusive.
- ▶ E-Commerce: It has transformed the way business is done in India. Much growth of the industry has been triggered by increasing internet and smartphone penetration. India's internet economy is expected to double from US\$125 billion as of 2017 to US\$ 250 billion by 2020, majorly backed by e-commerce. E-commerce revenue is expected to jump from US\$ 39 billion in 2017 to US\$ 120 billion in 2020, growing at an annual rate of 51 per cent, the highest in the world.
- ▶ National Agriculture Market (eNAM): It is an online trading platform for agricultural commodities. It facilitates farmers, traders and buyers with online trading in commodities. It is helping in better price discovery and provides facilities for smooth marketing of their produce.
- ▶ Gramin Agriculture Markets (GrAM): These are village level markets. There are 22,000 such rural agricultural markets, which help farmers in selling their produce locally. These local markets are linked with the electronic farmer marketplace, eNAMs to sell their produce nationally.
- ▶ Government e Marketplace (GeM): It is a dedicated e market for different goods & services procured by Government Organisations / Departments / PSUs. It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users, achieve the best value for their money.

Digital infrastructure for health:

- National Health Portal: Its objective is to create awareness amongst the citizens about health, government programmes and services in Health Sector. It provides information in six languages- Hindi, English, Tamil, Gujarati, Bengali, and Punjabi. A voice portal, providing information through a toll-free number and Mobile App are also available.
- National Telemedicine Network (NTN): It has been envisaged to provide Telemedicine Services to the remote areas. Telemedicine nodes across India are being created inter connecting SDH/PHC/CHC, District Hospital and Medical College in every State for providing Citizen-centric services.
- e-Hospital: This Hospital Management System is a workflow based ICT solution for hospitals. It covers major functional areas like patient care, laboratory

services, work flow based document information exchange, human resource and medical records management of a hospital.

- Online Registration System (ORS): It was launched in 2015 to provide services like-taking online registration & appointment, payment of fees, online viewing diagnostic reports, enquiring availability of blood online etc. in various public hospitals.
- Other initiatives are- Mera Aspataal (Patient Feedback) Application, Central Drugs Standards Control Organisation-SUGAM, Food Safety and Standards Authority of India (FSSAI), Vaccine Tracker (Indradhanush Immunization), Mother and Child Tracking System (MCTS) and TB Patient Monitoring System-Nikshay.

Digital infrastructure for education:

- Swayam: It an indigenously designed massive open online course (MOOC), It will host all the courses, taught in classrooms from 9th class till post-graduation and can be accessed by anyone, anywhere at any time. It aims to bridge the digital divide for students in e-education.
- Swayam Prabha: It is a programme for utilization of satellite communication technologies for transmission of educational e-contents through 32 National Channels. Everyday four hour fresh slot is telecast and repeated 5 more times in 24 hours to provide learning opportunities for the stake holders, as per their convenience.
- E-pathshala: It has been developed by NCERT for showcasing and disseminating all educational e-resources including textbooks, audio, video, periodicals and a variety of other print and non-print materials. So far, 3444 audios and videos, 698 e-books and 504 flip books have been made available on the portal and mobile app.
- National Repository of Open Educational Resources: It is an initiative to bring together all digital resources across all stages of school education and teacher education. So far, 13635 files including 401 collections, 2722 documents, 565 interactive, 1664 audios, 2581 images and 6105 videos have been made available over the portal.
- National Digital Library: It is a large online library containing 6.5 million books. It provides free access to many books in English and the Indian languages.

Digital infrastructure for governance (e-Governance):

- E-Kranti Framework: Its objective is to redefine NeGP with transformational and outcome-oriented

e-Governance initiatives, to enhance the portfolio of citizen centric services, to ensure optimum usage of core Information & Communication Technology (ICT), to promote rapid replication and integration of e-Governance applications, to leverage emerging technologies and to make use of more agile implementation models.

- Policy on Adoption of Open Source Software: It aims to make Government services digitally accessible to citizens in their localities and to ensure efficiency, transparency and reliability of such services at affordable costs.
- Policy on Open Application Programming Interfaces (APIs): As a part of Digital India, G2C, G2B and G2G services are to be delivered and made accessible through multiple channels like web, mobile and common service delivery outlets. Interoperability among various e-Governance applications and databases is vital for integrated service delivery.
- E-mail Policy: It lays down the guidelines with respect to use of e-mail services to ensure secure access and usage of Government of India e-mail services by its users. It is applicable to all employees of GoI that use the e-mail services of GoI.
- Application Development & Re-Engineering Guidelines for Cloud Ready Applications: It is to promote e-Governance solutions as cloud enabled products and to ensure development of Common Application Software (CAS) which can be configured as per department's requirements without the need of modifying the core source code of the application.

Way forward:

- Increase connectivity: India needs to accelerate the building of digital infrastructure, with a laser focus on creating high-speed broadband networks. By connecting people and devices, there is a huge opportunity to dramatically accelerate innovation.
- Utilize the existing human resource potential: India's software developer population was estimated to surpass that of the US and hit 5.2 million in 2018, but contributed only 2% of global software products in 2017. The country should use the potential of its engineers and their strong spirit of entrepreneurship.
- Education and affordability: The country needs to educate the people of the country specially the rural population about the internet use, provide them with ICT enabled devices, mobile phones and laptops with affordable internet connectivity.
- Cheap and available electricity: Government should provide round the clock electricity supply throughout the country even reaching out to remote areas so that people can access internet anytime.
- Better bandwidth: Government should improve the internet bandwidth, speed and security of networks and promote cloud infrastructure, which enables e-governance and e-banking services.
- Efficient manufacturing: Compared to China, India's progress in big data analytics, AI and robotics have been lacklustre. Our robot density stands at 3 against China's 68. Government should significantly improve its data infrastructure to sustain its manufacturing competitiveness.



Practice Question

- Today all the countries in the world are depending upon digitalization in their journey to development. Discuss how digitalization is helping India in her development, where it is lacking and what efforts are needed to improve it.

SHUTTING DOWN OF AIRLINES

CONTEXT

- Jet Airways announced a temporary halt of its operations as funds to keep the airline going dried up.
- Despite intense lobbying by the bankrupt airline, banks stood firm on their decision to not release emergency funds to sustain operations.
- The government is maintaining distance from the Jet affairs citing the matter is a commercial decision of banks.

◎ MORE ON NEWS:

- Rival airlines are targeting various assets of the grounded Jet Airways, including airport slots, highly-trained employees and aircraft, making the lenders' task of reviving the debt-laden carrier by finding a suitable buyer a more difficult task.
- Two low-cost airlines are aggressively hiring employees of the financially-crippled airline at much lower salaries and inducting aircraft to fill the vacuum created by Jet Airways, which was a significant player in the international and domestic markets till recently.
- Mostly, it is 40 to 50% discount. Some are even offered 25% of the salary they were drawing at Jet Airways. The service conditions and work culture at those places are completely different.

◎ ANALYSIS:

Airlines Have An Insanely Small Profit Margin:

- They have profit margins of less than 1% on an average. In monetary terms they make profits of only \$4 for every passenger they carry.
- The rest of the money goes to fuel (29%), salaries (20%), ownership costs (16%), government fees and taxes (14%), maintenance (11%) and other (9%).
- The biggest thing eating away at profit is fuel, which has grown steadily more expensive.

What are the reasons for shutting down of Jet Airways?

- Jet Airways was founded in 1993 after India ended a state monopoly on aviation in the early 1990s. It has consistently been one of India's top three airlines in the past decade. It controlled 13.9 per cent of India's aviation market.
- The crisis started in the mid-2000s. A slew of budget carriers started flooding the market, offering no unnecessary extra feature and yet on-time flights. Price-conscious Indian travellers refused to pay a

premium for on-board meals and entertainment. To keep up its market share, Jet Airways began dropping fares, some to below cost.

- Besides this, provincial taxes of as much as 30 per cent on jet fuel added to its expenses.
- Hence, Jet Airways lost money in all except two of the past 11 years and had Rs 72.99 billion (\$1 billion) of net debt.

What are the similar examples in recent times?

- State-run Air India Ltd:
 - ▶ It is surviving on bailouts worth thousands of crore. It was revived up with government support.
 - ▶ It has been making losses since the merger with Indian Airlines in 2007. There are too many employees after this merger and the government is reluctant to downsize. Around the world, there about 120 staff for every aircraft. Air India has 256. These extra people and salaries are a huge drain. A normal airline spends only 10% of its revenues on salaries and benefits, whereas Air India spends 20%.
 - ▶ Like any government organisation it is not professionally managed. It is run by civil servants, who might or might not have the necessary business experience and industry knowledge.
 - ▶ It has to run on a lot of unprofitable routes. This step is aimed at making air travel affordable and inclusive rather than making profits.
 - ▶ According to its audited accounts, the airline was estimated to have a debt burden of more than Rs 48,000 crore, making it the worst performer among public sector enterprises. This debt caused huge burden on the taxpayer's money. This prompted the government to go for a divestment bid. But this attempt to divest failed.
 - ▶ Further it was on the brink of defaulting on bank loan repayments. The aviation ministry had to sought Rs 500 crore from the finance ministry on an urgent basis to deal with the crisis.

Kingfisher Airlines:

- It was founded by Vijay Mallya in 2003 and started its operations in 2005 with a fleet of four new aircrafts.
- Since its operation in 2005 year by year the airlines continued to have less income and more cost. Hence its loss kept accumulating year by year.
- In 2010, the airlines completed restructuring of ₹8,000 crore debts, with all 18 lenders agreeing to cut interest rates and convert part of loans to equity. The airlines needed capital infusion to remain viable and this has pushed shares to near historic lows.
- In 2011 the airline released poor financial results, indicating that it was drowning in high-interest debt and losing money. The owner of airlines wanted the government to reduce fuel and other taxes.
- It was found that airlines was operating on cash basis hence it defaulted on paying the Tax Deducted at Source from the employee income to the tax department. It also had service tax arrears of Rs. 60 crore.
- In 2012, it received a letter from Airports Authority of India regarding accumulated dues of ₹255 crore.
- State Bank of India in 2012 declared the airlines a non-performing asset. SBI was the largest creditor and leader of the consortium of banks in the DRP (Debt Recast Package). Later the airlines was declared NPA by other lender banks- Bank of Baroda, Punjab National Bank, IDBI Bank, Central Bank of India, Bank of India, Corporation Bank.
- It ended operations in 2012 after failing to clear its dues to banks, staff, lessors and airports.
- **SpiceJet Ltd** almost collapsed two years later before its founders returned to gain control and revive the company.
- **Outside India** - Etihad, Singapore Airlines Ltd. and AirAsia Bhd have also set up local ventures, but they are all loss-making.

What is the impact of this shutting of airlines?

- Shutting of airlines causes removal of those many aircrafts from the aviation sector. This causes a lesser number of planes in flying condition leading to rise in the fares. This increases the expenditure of the passengers.

- In addition lesser number of aircrafts decreases the frequency of flights leading to more crowdedness and availability of fewer choices for the passengers.
- It will affect the employment of the thousands of people associated with the airlines- trained pilots, cabin crew, technical staff and ground staff. They will become jobless.
- It decreases the tourism in the country causing a loss to the income of the local people in the tourist destinations and to the national income as a whole.
- It is the fastest mode of transport. It is free from physical barriers. It follows the shortest and direct routes where seas, mountains and forests do not obstruct. Its closing down will force people to take other modes of transport- railways, roadways taking up the precious time of people.

Way forward:

- What are the efforts to minimize this issue?
- The board of directors of the airlines and the government both should take corrective action as soon as the airlines starts making losses and not wait for the time when huge debt gets accumulated.
- For the state run airlines the government should appoint the professionals having business experience and industry knowledge rather than the civil servants.
- The government should review fuel taxes and surcharges apart from airport levies, which the airlines complain are too high. A healthy airline industry can only be good for government revenues over the long term.
- It is notable that airfares have largely stayed stable over several years, benefiting passengers but biting airlines. It is time that airlines took stock of their collective plight and stopped undercutting each other on fares.
- The airlines should efficiently manage its staff- how many number of pilots, cabin crew, staff it can pay, how much it can pay and how long it can pay. It should also manage the number of aircrafts, parking lots and air routes it can afford. It should make changes in its operation well before it goes into loss making.



Practice Question

- Recent closing down of airlines shows that it is a riskier business. Discuss with examples why airlines are failing, its impact on people and economy and what efforts should be taken to solve this.

FREEDOM OF PRESS INDEX 2019

CONTEXT

- India has dropped two places on a global press freedom index to be ranked 140th out of 180 countries in the annual Reporters Without Borders .
- The World Press Freedom Index 2019', topped by Norway, finds an increased sense of hostility towards journalists across the world.

◎ ABOUT:

- Violence against journalists including police violence, attacks by Maoist fighters and reprisals by criminal groups or corrupt politicians is one of the most striking characteristics of the current state of press freedom in India.
- At least six Indian journalists were killed in connection with their work in 2018.
- These murders highlighted the many dangers that Indian journalists face, especially those working for non-English-language media outlets in rural areas.

◎ BACKGROUND:

- Paris-based Reporters Sans Frontieres (RSF), or Reporters Without Borders, is a non-profit organization that works to document and combat attacks on journalists around the world.
- In its 2019 index, RSF finds that hatred of journalists has degenerated into violence, contributing to an increase in fear around the world.

How is the Index compiled?

- The degree of freedom available to journalists in 180 countries is determined by pooling the responses of experts to a questionnaire devised by RSF.
- This qualitative analysis is combined with quantitative data on abuses and acts of violence against journalists during the period evaluated.
- The criteria evaluated in the questionnaire are pluralism, media independence, media environment and self-censorship, legislative framework, transparency, and the quality of the infrastructure that supports the production of news and information.
- To compile the Index, RSF has developed an online questionnaire with 87 questions focused on these criteria.
- Scores are calculated on the basis of the responses of the experts selected by RSF combined with the data on abuses and violence against journalists during the period evaluated.

- Ever since the 2013 index, countries have been given scores ranging from 0 to 100, with 0 being the best possible score and 100 the worst.
- This makes the Index more informative and makes it easier to compare one year with another.
- **The press freedom map offers a visual overview of the scores of all the countries in the index:**
 - ▶ From 0 to 15 points: Good situation (white)
 - ▶ From 15.01 to 25 points: Satisfactory situation (yellow)
 - ▶ From 25.01 to 35 points: Problematic situation (orange)
 - ▶ From 35.01 to 55 points: Difficult situation (red)
 - ▶ From 55.01 to 100 points: Very serious situation (black)
- With a score of 45.67, India is in RED zone.

World Press Freedom Index 2019: Key Pointers

- The coordinated hate campaigns waged on social networks against journalists who dare to speak or write about subjects that aggravate Hindutva followers are alarming and include calls for the journalists concerned to be murdered.
- The campaigns are particularly virulent when the targets are women.
- The emergence of a #MeToo movement in the media in 2018 has lifted the veil on many cases of harassment and sexual assault to which women reporters have been subjected.
- Criminal prosecutions are meanwhile often used to gag journalists critical of the authorities, with some prosecutors invoking Section 124a of the penal code, under which "sedition" is punishable by life imprisonment.
- The mere threat of such a prosecution encourages self-censorship.
- When not detained, Kashmiri journalists working for local media outlets are often the targets of violence by paramilitaries acting with the central government's tacit consent.

◎ ANALYSIS

World Press Freedom Index and India: Underlying reasons and Corrective measures

- For a country that prides itself on the strength of its democracy, India's record in upholding the freedom of press has been consistently poor.
 - The physical violence against journalists is largely responsible for India's low ranking.
 - Any investigative reporting that annoys the ruling party or any criticism of Hindutva, elicits a torrent of online insults and calls for the death of the reporter or writer responsible, most of it coming from the troll army.
- There are institutional shackles which constrain a reporter's right to free speech, and consequently, prevent important stories from being published.
 - **Censorship Begins From Within:** Most journalists including editors are employed on contracts of three years or less, with an exit clause that permits them to leave or be fired on a notice of between one and three months. As a result, journalists have lost the courage to speak up or write about any issue that owners and managements do not want them to, including the issue of their own unstable working conditions.
 - **Balancing Freedom of Trade and Freedom of Speech:** The concentration of ownership of media implies that the influence and power which result in distribution of news and culture among other forms of expression and opinion-building in the country is now vested in only a handful of people.
 - The space for providing factual information as well as expressing views that are not in favor of (or even against the interests of) India's biggest corporate conglomerates has shrunk.
- The free press is expected to uphold society's civil and political freedom; however, the distribution of information in India is neither free nor fair.
- Industrial houses have been investing in media companies and indirectly gaining control over them.
- This reinforces the view that investors are investing in the media for their access and proximity to power and authority, and thereby also indulging in lobbying, rent-seeking behavior.
- **Legal Safeguards to Protect a Whistleblower is in shambles:** A journalist is only as good as their

source. Thus, maintaining their anonymity must be paramount. India, however, has a patchy record when it comes to protecting whistleblowers.

- The stunted development of source protection privilege law in India has meant that news gatherers' interactions with confidential sources are colored by ambiguity.
- Despite two sets of recommendations by the Law Commission of India, neither the government nor the judiciary has displayed an inclination to directly address the issue. Courts have adopted an impressionistic and ad hoc approach in deciding cases bearing upon source protection.
- The casualties of the quagmire are news gatherers, sources, the public, and the spirit of a democratic nation.
- The phenomenon of "paid news" wherein newspapers, magazines and TV channels are paid for eulogies of particular candidates and political parties, which then masquerade as independent news has eroded credibility of the media.
- Coverage of regions that the authorities regard as sensitive, such as Kashmir, continues to be very difficult.
- Foreign reporters are barred from the region and the Internet is often disconnected there.

How to move up the ladder?

- **Pluralism:** Create a plural and vibrant society free from fear and abuse.
- **Media independence:** Increase the degree to which the media is able to function independently of sources of political, governmental, business and religious power and influence.
- **Environment and self-censorship:** Improve the environment in which news and information providers operate.
- **Legislative framework:** Liberalize the impact of the legislative framework governing news and information activities.
- **Transparency:** Make the institutions and procedures that affect the production of news and information open and transparent.
- **Infrastructure:** Scrutinize and improve the quality of the infrastructure that supports the production of news and information.
- **Abuses:** Increase data protection and make rule of law highly effective.

**Practice Question**

- India has been slipping world press freedom index year on year. It slipped 4 points - from 136 in 2017 to current position of 140 in 2019. Discuss reasons for this low performance and suggest ways to improve the same.

HOW EFFECTIVE IS ELECTION COMMISSION IN ENSURING FAIR ELECTIONS

CONTEXT

- The Supreme Court has examined the scope of powers of Election Commission of India to deal with political leaders and candidates violating the Model Code of Conduct (MCC).
- Of late, Political leaders have been indulging in hate speeches and appealing for votes on the basis of religion and caste.
- Such scenarios polarize the otherwise “free and fair” election environment and displace goals of “by the people” substantive democracy.

◎ ABOUT:

- Indian elections represent one of the largest and most complex election management exercises in the world.
- In a vast country like India starting from the preparation of schedule and sequencing of elections in various states till the date of counting it has to be a focused exercise involving an election machinery of 11 million plus people.
- With enormous logistical arrangement in mind, the ECI also has a task – to instill confidence and un-conditional support to realize free and fair electoral exercise.

◎ ANALYSIS:

What is Model Code of Conduct (MCC)?

- The purpose of MCC is to ensure that ruling parties, at the Centre and in the States, do not misuse their ‘position of advantage’ to gain an unfair edge.

Some important MCC pointers are:

- No party or candidate shall include in any activity which may aggravate existing differences or create mutual hatred or cause tension between different castes and communities, religious or linguistic.
- Criticism of other political parties, when made, shall be confined to their policies and programme, past record and work. Parties and Candidates shall refrain from criticism of all aspects of private life, not connected with the public activities of the leaders or workers of other parties.
- There shall be no appeal to caste or communal feelings for securing votes.
- Mosques, Churches, Temples or other places of worship shall not be used as forum for election propaganda.
- All parties and candidates shall avoid scrupulously all activities which are “corrupt practices” and offences under the election law, such as bribing

of voters, intimidation of voters, impersonation of voters, canvassing within 100 meters of polling stations, holding public meetings during the period of 48 hours ending with the hour fixed for the close of the poll.

- The party or candidate shall inform the local police authorities of the venue and time any proposed meeting well in time so as to enable the police to make necessary arrangements for controlling traffic and maintaining peace and order.
- A Party or candidate shall ascertain in advance if there is any restrictive or prohibitory order in force in the place proposed for the meeting if such orders exist, they shall be followed strictly. If any exemption is required from such orders, it shall be applied for and obtained well in time.
- Organizers of a meeting shall invariably seek the assistance of the police on duty for dealing with persons disturbing a meeting or otherwise attempting to create disorder. Organizers themselves shall not take action against such persons.
- A Party or candidate organizing a procession shall decide before hand (and give advance intimation to the local police authorities) the time and place of the starting of the procession, the route to be followed and the time and place at which the procession will terminate. There shall ordinary be no deviation from the programme.
- The organizers shall ascertain if any restrictive orders are in force in the localities through which the procession has to pass, and shall comply with the restrictions unless exempted specially by the competent authority.
- If two or more political parties or candidates propose to take processions over the same route or parts thereof at about the same time, the organizers shall establish contact well in advance and decide upon the measures to be taken to see that the processions do not clash or cause hindrance to traffic. The assistance of the local police shall be availed of for arriving at a satisfactory arrangement. For this purpose the parties shall contact the police at the earliest opportunity.

- The Directive Principles of State Policy enshrined in the Constitution enjoin upon the State to frame various welfare measures for the citizens and therefore there can be no objection to the promise of such welfare measures in election manifestos. However, political parties should avoid making those promises which are likely to vitiate the purity of the election process or exert undue influence on the voters in exercising their franchise.

Is MCC legally enforceable?

- The MCC is not enforceable by law.
- However, certain provisions of the MCC may be enforced through invoking corresponding provisions in other statutes such as the Indian Penal Code, 1860, Code of Criminal Procedure, 1973, and Representation of the People Act, 1951.

Should the MCC be enacted into a law?

- If the MCC is made a law, some comma or some phrase somewhere will be interpreted ambiguously and it will end up in the courts.
- If MCC is made a law, it will be taken away from the EC's discretion and it will be given to the judiciary.
- Judiciary is known for procedural boundness and delay in delivery – something which will prove detrimental to the whole rationale behind electoral exercise.
- This is because, MCC acts like a fire brigade — if there is fire, it has to be extinguished right then and not after five or 10 years.

How effective is MCC in its current version?

- The moral authority of the model code is very strong and the leaders are afraid of getting a notice under the model code.
- Anything which is in the model code is also part of different laws, and action is simultaneously taken under the laws also.

What other reforms are essential to make ECI more effective?

- The appointment system to the EC must improve.
- The appointment should be made by either a collegium or by the parliamentary committees and there must be a parliamentary endorsement.
- Empower ECI to de-register political parties.
- All matters pertaining to 'election funding' must be kept under the purview of ECI.
- Match ECI's adjudicatory and disciplinary activities to that of UPSC.

How effective is Election Commission of India in ensuring fair elections

- ECI has evolved over the ages.
- With advent of Universal adult suffrage from phase 1 (1950-1967), ECI effectively dealt with challenges such as illiteracy and creating awareness.
- The Commission approaches the government well in advance to obtain the names of senior officers for the purpose of appointment as observers before any election.
- Once the names are received, the officers are called for a briefing meeting to make them aware about the system of election and the points where they should focus while in field.
- Via SVEEP, ECI engages more and more voters in the electoral process and ensure their ethical and inducement-free participation in voting.
- The internal system of monitoring by neutral and senior government officers has become time tested and been proving to be very useful during elections.



Practice Question

- During elections, Political parties and leaders appeal to voters by igniting caste or communal feelings for securing votes. Mosques, Churches, Temples or other places of worship are used as forum for election propaganda. Within this context, evaluate role of Election Commission in curbing such electoral malpractices.

US ENDS WAIVER FOR IRANIAN OIL

CONTEXT

- Trump administration has decided to no longer renew exemptions for importing Iranian oil and has threatened sanctions on nations importing it after May 2, 2019.
- Six months of waivers, known as Significant Reduction Exceptions (SRE), was granted to Iran's eight biggest buyers (including China and India) of crude to continue to import limited volumes after the US pulled out of its n-deal with Iran in 2018.
- Among these eight buyers, Greece, Italy and Taiwan have stopped importing Iranian oil, while others, except China, are seeking waivers to be extended. China remains defiant.

◎ ABOUT

- Since beginning, Trump administration has maintained a hawkish policy towards Iran, designed to bring an end to Iran's destabilizing actions in the region, including its support for Hezbollah in Lebanon and Houthi rebels in Yemen.
- Targeting core areas of Iranian economy, in November 2018, after abandoning 2015 nuclear deal, Mr Trump re-imposed sanctions on Iran's energy, ship building, shipping, and banking sectors. It was done to compel Iran to negotiate a "new deal" that would cover not only its nuclear activities, but also its ballistic missile programme.
- Recently, Iran's Islamic Revolutionary Guards Corps (Presidential Guards) was designation as a foreign terrorist organization by the US administration.
- The current decision is intended to bring Iran's oil exports to zero, denying the government its main source of revenue.
- Iran maintains that the sanctions are illegal and attaches "no value or credibility" to the waivers.
- The sanctions have led to a sharp downturn in Iran's economy, pushing the value of its currency to record lows, quadrupling its annual inflation rate, driving away foreign investors, and triggering protests.
- The complete ban on Iranian exports raises the prospect of retaliatory measures by Iran, including blocking of oil tanker movements through the Strait of Hormuz, which has the potential to flare up oil prices.
- Iranian oil exports are currently estimated to be below 1 million barrels per day (bpd), compared to more than 2.5 million bpd before the US abandoned the nuclear deal.
- The decision is expected to impact India's energy and economic security interests. On the up side, Trump administration has assured continuance of the exemption for development of the Chabahar port project.

◎ BACKGROUND

- Joint Comprehensive Plan of Action: In 2015, Iran agreed a long-term deal on its nuclear programme with the P5+1 group of world powers - the US, UK, France, China, Russia and Germany. It came after years of tension over Iran's alleged efforts to develop a nuclear weapon. Iran insisted that its nuclear programme was entirely peaceful, but the international community did not believe that. Under the accord, Iran agreed to limit its sensitive nuclear activities and allow in international inspectors in return for the lifting of crippling economic sanctions.
- Iran-US Conflict: It dates back to 1953 overthrow of the Iranian government by the US. 1979-80 Hostage crisis during the Islamic Revolution that ousted Shah of Iran from power and established a clerical regime in Iran four decades ago, remains the defining moment of their relationship. Following which, Iran's nuclear program have cast a long shadow over any efforts at direct talks. Thus, their relations have been sporadic and marred by mutual distrust and debacles.

◎ ANALYSIS

Why it matters to India?

- Dependence on Iran: India is the third largest importer of oil globally, importing around 70-80% of its oil requirement. In 2014-15, India used to import a majority (18.4%) of its total crude oil requirement from Saudi Arab with Iran at a distance 7th position contributing only 6% of India's crude basket. However, Iran is now the third largest contributor to India's energy security, contributing 11.3% of the country's crude oil demand.
- Special deals from Iran: Higher discounts, longer credit periods and better insurance and shipping deals by Iran has endeared it as India's reliable oil suppliers. The substitute crude suppliers — Saudi Arabia, Kuwait, Iraq, Nigeria and the US — do not offer the attractive options.

- Sanction on Venezuela: The US has also asked India to reduce oil imports from Venezuela. The US targeting "illegitimate" regime of President Nicolas Maduro, accusing it of violence and obstructing international humanitarian assistance to the citizens of the country undergoing a socio-economic crisis. In 2014-15, Venezuela was the third largest supplier (12.1%) of crude oil to India. But by January 2019, it has dropped to fifth position (7.6%) mostly due to pressure from the US.
- Status of international oil prices: International oil prices have already climbed \$20 a barrel in 2019 following an agreement between the Organization of the Petroleum Exporting Countries (OPEC) cartel and its allies, including Russia, to cut their output by 1.2 million bpd. The surging prices of oil has always been an Achilles heel for the Indian economy.

Impact of high oil prices on India

- Current account deficit: Higher crude oil prices will widen the trade deficit and current account deficit for India. Every dollar increase in the price of oil raises India's annual import bill by over Rs 10,500 crore. Thus, any spike in global crude prices in the absence of the Iranian cushion will have a bigger impact on India's deficit numbers.
- Rupee: The currency could be impacted if the trade and current account deficits were to widen. An increase in the import bill will put pressure on the rupee.
- Inflation: There will be a significant impact on inflation based on how crude oil prices move and the extent to which the government allows the pass-through to the consumer.
- Fiscal impact: There could be a two pronged impact on government finances — both on the revenue side and on the expenditure side. On the revenue side, higher oil prices mean more revenue for the states as tax is ad valorem; for the Centre, though, it may not materially impact the fiscal math as the duty rates are fixed. In FY18, the government earned Rs 5.53 lakh crore, of which Rs 2.85 lakh crore was direct revenue as tax from oil products. In the case of states, it was Rs 2.08 lakh crore. Other incomes streams included tax payment by OMCs, dividend and profits. The expenditure impact would primarily be on account of fuel subsidy outlays.

India's past response

- As part of the diversification after re-imposition of sanction in November 2018, and to reduce tension with the Trump administration, which highlighting the trade surplus that India enjoys has been accusing India of unfair trade practices, India imported crude from the US for the first time in 2017-18. India now imports 2.75 % of its oil imports from the US.
- But the effort did not stop Trump administration from withdrawing zero duty benefits worth \$5.6 billion to Indian exporters or ending the waiver from Iran sanctions.

Way forward for India

- The challenge for India this time is to secure an alternative supplier at competitive terms in an already tightening global situation. The projected drop in Iranian exports could further squeeze supply in a tight market — given the US has also sanctioned Venezuela, and the OPEC and allied producers including Russia have voluntarily cut output, which has pushed up oil prices more than 35% in 2019.
- India claims to be sufficiently prepared to deal with the impact of the US decision and a robust plan has been put in place for adequate supply of crude to refineries. Indian refiners are increasing their planned purchases from the Organisation of the Petroleum Exporting Countries (OPEC), Mexico, and even the US to make up for the loss of Iranian oil. India can further push Washington which has given its word to help India replace oil imports from Iran.
- India can also leverage its improved relations with Saudi Arabia and the UAE to negotiate long-term alternatives to energy dependence on Iran.

Conclusion

- This is not the first time that the conflict between Washington and Tehran is testing Indian foreign policy. India had managed to navigate the frequent crises around Iran with innovative diplomacy and much luck. India's ties with Iran are significant and historic, and New Delhi will have to work hard to maintain some links like in the past.



Practice Question

- Surging oil prices have been an Achilles heel for the Indian economy. Discuss. Also, examine the impact of US's termination of waiver for importing Iranian oil on India.

FARMERS PROTEST IN INDIA

CONTEXT

- For the past three years, farmers have been protesting across India, demanding favourable policies or concrete initiatives that would get them a fair price for their produce. The Kisan long march from Nasik to Mumbai in March 2019, the All India Kisan Sabha's protest in Delhi and the Bhartiya Kisan Union rally in 2018, protest by farmers of Tamil Nadu in 2017
- India's last national census conducted every decade — in 2011 recorded nearly 15 million fewer farmers than there were in 1991. It said that 2,040 farmers quit agriculture every 24 hours. Cultivation costs have risen manifold since the mid-1990s, but the farmers' incomes have stagnated or declined. This is a major cause for their dissatisfaction causing them to protest or move to cities for better employment opportunities.
- Small land holdings, low prices, weather induced crop loss have pushed farmers into cyclical debt. They demand implementation of Swaminathan committee report and loan waiver
- Other Demands of Farmers: Increased minimum support prices (MSP), Cut in diesel prices, Reversal of NGT(National Green Tribunal) ban on ten-year-old diesel vehicles, Payment of pending sugarcane dues, the farmers are also demanding a special session of parliament dedicated to discussion around the agrarian distress. Coalition under the aegis of the All India Kisan Sangharsh Coordination Committee (AIKSCC) is also demanding that parliament pass two bills prepared by the AIKSCC – the freedom from indebtedness bill and a bill to guarantee remunerative MSP.

Recommendations of Swaminathan Committee

- National Commission on Farmers** headed by Dr. M. S. Swaminathan submitted its report in 2006. One of the recommendations of Commission was that MSP should be at least 50 percent more than the weighted average cost of production.
- Formation of National Land Use Advisory Service which would link the land use decision with marketing and ecological meteorological factors on the basis of season and location. This would help in making the right of use of land in a given time or season.
- Distribute ceiling-surplus and waste land among farmers: The share of the bottom half of the rural households in the total land ownership was only 3 per cent and the top 10 per cent was as high as 54 per cent. One of the demands of the agitating farmers today is that they should be made the owner of the land they have been tilling for years.
- To prevent diversion of prime agricultural land and forest to corporate sector for non-agricultural purposes.

Critical Evaluation of Farmer's Protest in India

- Relevance of Agrarian Pressure Groups:** Pressure groups are a sign of changing consciousness. The rise of peasants groups in India has been mainly due to abolition of Zamindari System, implementation of Panchayati Raj, land reform measures, Green Revolution Movement. They gained power since 1960s. In 1936, the All India Kisan Sabha was established and after 1942 the Communist Party of India acquired control over it.

- Despite all India organizations, farmers remained one of the unorganized segments of the society; their problems did not get articulated sufficiently earlier. However today there is a shift. In 2017, around 184 farmer groups came together from Tamil Nadu, Maharashtra, Madhya Pradesh, Uttar Pradesh, Punjab and Telangana to take part in a 'protest walk', demanding higher prices for agricultural produce. Bhartiya Kisan Party (BKP) in western U.P, India Kisan Sangharsh Coordination Committee (AIKSCC), Bharatiya Kisan Sangh are significant ones that are voicing the concerns of farmers. Their involvement has increased awareness among common people that it is not just vagaries of nature that push the farmers toward desperate measures but also structural flaws in governance system that causes farmer distress.
- Method of Protests:** The pressure groups adopt different methods to realize their goals. These methods even include cordial rapport with the political party in power, to even resorting to agitational methods. Indian Coordination Committee of Farmers' Movements (ICCFM), a conglomeration of farmers groups such as BKU (Bhartiya Kisan Union) and the Karnataka Farmers Movement (KRRS) demanded that demands of farmers should be included in poll manifestos. Its charter of demands placed before the government included many important issues like criminal action against traders who violate the minimum support price (MSP), an additional income support of Rs 10,000 per acre per year per farmer to all farmers across the country along with pension of at least Rs 5,000 per month after the age of 60 etc.
- Panchayats help in streamlining of farmers demand and thus play a vital role. In 2015 Land

Acquisition & Resettlement and Rehabilitation Act 2011 was protested and Kisan Khet Mazdoor Mahapanchayat was organized. Complete moratorium on land acquisition across the country, especially acquisition of agricultural land for non-agrarian purposes by private parties was sought. They advocated compulsory Panchayat consent before acquisition.

- More extreme ways of protest are being witnessed as a latest trend in India. For eg in Tamil Nadu farmers resorted to use of skulls, snakes and rats symbolizing their fate due to drought.
- **Is there need for farmer pressure groups in India:** Farmers Pressure groups are now considered as an indispensable and helpful element of the democratic process. Declining water tables, falling soil fertility, erratic rain, extreme weather conditions and low agricultural profits have made farmers a vulnerable group and agriculture a gamble. Thus they need the support of other fellow beings in order to gain greater bargaining power; this gives rise to pressure groups that are based on common interests. For a long time these groups remained unnoticed, initially they were considered as harmful for the democratic process, but now their role in the political process has become very important.
- Pressure groups differ according to the impact they are able to create. Today farmer pressure groups have become important and relevant as the industry pressure groups like CII (Confederation of Indian Industry), FICCI (Federation of Indian Chambers of Commerce & Industry), ASSOCHAM (Associated Chambers of Commerce and Industry). They also affect elections as seen in Bundelkhand where local pressure groups drew up a 'Bundelkhand Water Manifesto' demanded political parties to address water scarcity in the region.
- However it is argued that pressure groups often turn myopic in the pursuit of their goals. Their closeness to bureaucrats and politicians sometimes lead to conflict of interest which hurts the larger public interest. It is also argued that some pressure

groups are well organized compared to others. The loosely organized ones are unable to put forth their demands as strongly as others like Safai karamchari Sangh, Senior Citizens Associations etc.

- **Alternative Modes of Protests:** In order to make themselves heard and pressurize the legislature and executive farmers have resorted to strikes and processions. However use of appeals, petitions, demonstrations, press releases, debates and organized discussions cannot be ignored. This helps in educating people and widening their vision about the issue. Use of gram sabhas, Jan Sunwai and mahapanchayats give lot of credibility to the demands of farmers and push the government to initiate reforms. This is also important so that pressure groups do not wither away after fulfillment of the demands. They need to work sustainably in the long run so that grievances and issues of farmers are always adequately represented

WAY FORWARD

- Farmers protest in India is an indication of larger complex issue. Pressure groups play a vital role in generating awareness and reaching a consensus and sustainable solutions to farmer's problems.
- NITI Aayog has suggested that all subsidies for agriculture, including fertilizer, electricity, crop insurance, irrigation and interest subvention be replaced by income transfer which will give them the freedom to choose the best crop. Also, it will help in lifting farmers out of poverty and prevent misuse of resources and leakages in the system. However first states have to be taken on board along with land records that will identify the beneficiaries. It has also suggested that supplementing the farm income is the best way forward.
- Loan waivers benefit only a small fraction of farmers thus Ministry of Agriculture must link allocations to states to reform measures undertaken by them in the farm sector. This will generate accountability and responsibility on part of states.



Practice Question

- Pressure groups have enabled farmers to emerge as a socially conscious and politically active group. Critically examine.

SECTION: B
(PRELIMS)

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SALT TOLERANT RICE VARIETY

◎ **CONTEXT:**

- A group of Indian scientists has developed a new salt-tolerant transgenic rice plant

◎ **ABOUT:**

- A group of Indian scientists led by Prof. Arun Lahiri Majumder has developed a new salt-tolerant transgenic rice plant by over-expressing a gene from a wild rice called *Porteresia coarctata* into the commonly used IR 64 indica rice variety.
- *Porteresia coarctata* is a native of India, Sri Lanka, Bangladesh and Myanmar and is grown mainly in saline estuaries.
- The new crop can withstand salt concentration of up to 200 micromole per litre (about half as saline as sea water) without affecting normal growth and grain yield under greenhouse conditions.
- The study has also indicated that inositol, a vitamin like substance found in all plants and animals including human being, acts as a stress-ameliorator and as a switch for a number of other pathways important for imparting salt-tolerance.
- There are several plants called halophytes, which are rich sources of salt stress tolerance genes and *Porteresia coarctata* is one of them.
- One of the genes isolated earlier by the scientists from this plant, *PcINO1*, codes for a salt tolerant enzyme which synthesizes inositol even in presence of salt, while the second gene isolated by the group, *PcIMT1* from the same plant converts inositol to another compound called pinitol.
- The researchers over-expressed these two genes into IR64 indica rice. They generated three types of transgenic lines: one with introgression of *PcINO1* only, the second with *PcIMT1* only and the third with combinations of both.
- The rice lines created with *PcINO1* gene exhibited significantly higher tolerance, with a salt concentration of upto 200 micromole per litre or higher in pots, with little compromise in growth or other physiological parameters.
- The two other transgenic lines, one with *PcIMT1* gene alone and the second with both *PcINO1* and *PcIMT1* genes were less efficient.
- The scientists then compared the quantities of inositol/pinitol in the three set of transgenic lines. They found that under saline conditions inositol production remained uninterrupted only in the transgenic plant created with *PcINO1*.
- The new finding indicates that such manipulation of the inositol metabolic pathway may be one of the ways to combat salt stress in plants.

◎ **SIGNIFICANCE:**

- The new findings assume importance particularly in the context of the growing concerns over the global climate change, as there is a particularly need to develop new rice varieties that are salt and drought resistant.
- Conventional breeding programmes have led to the development of some salt and drought-tolerant rice varieties and they are in use in India and other countries like Philippines and Bangladesh. However, conventional breeding has not been able to meet the requirements fully.
- There is a need for efforts to develop new varieties through genetic manipulation also.

About the Research Team

- Besides Prof. Arun Lahiri Majumder who led the team, the research team consisted of Rajeswari Mukherjee, Abhishek Mukherjee, Subhendu Bandyopadhyay, Sritama Mukherjee, Sonali Sengupta and Sudipta Ray of Division of Plant Biology at Kolkata-based Bose Institute. The work had been supported by funds from the Department of Biotechnology.

WORLD HERITAGE DAY

◎ **CONTEXT:**

- **UNESCO World Heritage Day 2019:** In the year 1982, the International Council on Monuments and Sites declared 18th April as World Heritage Day to raise awareness about monuments and other sites which form a part of our history and culture.

◎ **ABOUT:**

- UNESCO approved of this day in the year 1983 and since then the day is dedicated to informing people about the sites which have achieved the status of heritage, their importance and the problems involved in protecting these sites.
- World heritage day also aims to seek recognition for the people involved in preserving these sites, especially scientists, archaeologists, geographers and engineers.
- World Heritage site is a natural or man-made site, area, or structure recognized as being of outstanding international importance and therefore as a deserving special protection. Sites are nominated to and designated by the World Heritage Convention (an organization of UNESCO).
- In 2019, the theme is Rural Landscapes – which is linked to the theme of the 2019 ICOMOS (The International Council on Monuments and Sites Scientific Symposium on Rural heritage to take place in October in Marrakesh, Morocco).

UNESCO's World Heritage mission is to:

- Encourage countries to sign the World Heritage Convention and to ensure the protection of their natural and cultural heritage;
- Encourage States Parties to the Convention to nominate sites within their national territory for inclusion on the World Heritage List;
- Encourage States Parties to establish management plans and set up reporting systems on the state of conservation of their World Heritage sites;
- Help States Parties safeguard World Heritage properties by providing technical assistance and professional training;
- Provide emergency assistance for World Heritage sites in immediate danger;
- Support States Parties' public awareness-building activities for World Heritage conservation;
- Encourage participation of the local population in the preservation of their cultural and natural heritage;
- Encourage international cooperation in the conservation of our world's cultural and natural heritage.

Top 5 UNESCO World Heritage sites :

- **Angkor Wat:** The largest religious temple in the world, Angkor Wat was originally dedicated to Hindu deity Vishnu but then was transformed into a Buddhist temple by the end of the twelfth century.
- **Machu Pichu:** Located in Peru, Machu Pichu is located at 8000 ft with a natural beauty which is unparalleled.
- **Taj Mahal:** Taj Mahal is a mausoleum located in Agra, India which was built by emperor Shah Jahan to his honour his wife Mumtaz Mahal.
- **Sigiriya:** Located near the town of Dambulla in the Central Province, Sri Lanka, the Sigiriyan lion rock is a fortress and temple complex build atop a volcanic plateau and is truly a sight to behold.
- **Cinque Terre:** Located in Italy, the name of this site translates to 'Five Lands' and is a part of the rugged Italian coastline.

AIIB BOOSTS COMMON DEVELOPMENT OF ASIA, WORLD

◎ CONTEXT:

- The China-sponsored Asian Infrastructure Investment Bank (AIIB) has approved \$7.5 billion in loans to support infrastructure projects in 13 countries of six regions, including East Asia, Southeast Asia, South Asia, Central Asia, West Asia and Africa, driving almost \$40 billion of capital into infrastructure projects over the past three years since its opening on Jan. 16, 2016.
- To date, the new-type multilateral development bank, with a mission to promote infrastructure connectivity, has expanded its membership from 57 founders to 93 approved members.

◎ ABOUT:

AIIB and India:-

- India is the largest borrower of the AIIB.
- In December 2018, the AIIB approved a loan of \$400 million for a water supply program in Andhra Pradesh, India, aiming to provide safe drinking water through piped water supply to 3.3 million people in the region, where severe water pollution and poor water purifying equipment affected people's health.
- It has approved nine loan projects in India including the water supply program, totaling over \$2 billion.
- Most of these loans were used to improve the transportation, electricity supply, water supply and other infrastructure-related areas, according to the AIIB.

AIIB and Asia-

- AIIB granted loan to Bangladesh to improve power supply for the country - a \$60-million capital that went to a green field 220-megawatt combined cycle power plant in Bhola island in the Barisal district of Bangladesh.
- Among the AIIB-financed projects in Indonesia, the National Slum Upgrading Project had the most remarkable achievements, improving the livelihood for tens of millions of impoverished residents.
- There are over 29 million Indonesians living in slums, according to the estimate of George Soraya from the World Bank who is in charge of the project.
- AIIB's loan project to the Philippines aims to improve flood management in selected areas of Metro Manila.
- With AIIB's loans, Tajikistan in Central Asia has boosted key projects including a city roads and flyovers project in its capital Dushanbe, the Dushanbe-Uzbekistan Border Road Improvement Project and the Nurek Hydropower Rehabilitation Project.

AIIB- as a Multilateral Bank:-

- In the past three years, the AIIB has demonstrated internationalism, normative operation and high standards in its governance structure, policy standards and operation mode, winning wide recognition in the international society.
- It has received the top-level rating by three major credit rating agencies in the world, and has assigned a zero-risk weighting by the Basle Committee on Bank Supervision (BCBS).
- The bank was proposed by China in 2013. It received the highest credit ratings from the three biggest rating agencies in the world, and is seen as a potential rival to the World Bank and IMF.

◎ SIGNIFICANCE:

- As an important platform that promotes the building of a community of shared future for mankind, the AIIB is expected to continue to inject new vitality to regional and common development of the world. The AIIB has played an important role in Asia's development, its projects are improving the poor infrastructure that is conducive in stimulating the local development vitality.

ETHICAL GOLD

◎ CONTEXT:

- The high-end consumers are now demanding not only the carats but how ethical the gold is. They want to know the origin of their treasure. For them the jewellers are ensuring responsibly sourced, eco-friendly and recycled gold.

◎ ABOUT:

What is ethical gold?

- It is the responsibly sourced, eco-friendly and recycled gold.
- It is an attempt to codify responsible gold mining which does not cause degradation of environment and take cares of the human rights of the workers involved.
- Ethical gold is about 10 to 12 per cent more expensive than normal gold.

What is its worldwide use?

- The Geneva-based firm, which makes the Palme d'Or trophy for the Cannes Film Festival, says it now uses only verified suppliers of gold that meet strict standards to minimise negative environmental impacts of mining the precious metal.
- Among the many certificates and standards claiming to codify responsible gold mining, two labels stand out:
 - "fairmined" gold - a label certified by a Colombian NGO and
 - "fairtrade" gold – a label launched by Swiss foundation Max Havelaar.
- The French luxury group Kering, which says it has bought more than 3.5 tonnes of "responsibly produced" gold since 2015 for its Boucheron, Pomellato, Dodo and Gucci brands, has committed to 100 per cent use of "ethical" gold by 2020.

Why it is becoming an accepted trend today?

- **Ethical concerns:** Concerned jewellers are keen to ensure they can trace the source of their entire supply to an ethical production cycle and to firms certified by the not-for-profit Responsible Jewellery Council, which has developed norms for the entire supply chain.
- RJC members adhere to tough standards governing ethical, human rights, social and environmental practices across the precious metals industry.
- **Environmental concerns:** Going a step further, jewellers are using the precious metal from electronic or industrial waste. They do not want to promote mining extraction or use recently extracted gold, so they are seeing suppliers who recycle gold used in graphics cards or computer processors.
- In a mine, a tonne of terrain might contain five grams of gold, whereas a tonne of electronic waste might generate 200 grams.

REGULATORY SANDBOX

◎ CONTEXT:

- The Reserve Bank of India released draft 'Enabling Framework for Regulatory Sandbox', enabling framework for regulatory sandbox for fintech firms, including an indicative list of relevant products and services and fit-and-proper criteria for participants in the RS.

◎ ABOUT:

What is regulatory sandbox?

- In the computer science world, a sandbox is a closed testing environment designed for experimenting safely with web or software projects.

- The concept of regulatory sandbox is used in a similar manner in the digital economy arena: testing grounds for new business models that are not protected by current regulation, or supervised by regulatory institutions.
- The indicative list of products, services and technologies where this concept could be applicable includes retail payments, money transfer services, marketplace lending, mobile technology applications, data analytics and application program interface (API) services.

Why it is used?

- The first and foremost use of this concept is that it fosters “learning by doing”.
- It will provide the requisite regulatory guidance to increase efficiency, manage risks and create new opportunities for consumers.
- Users of a sandbox can test the product’s viability without the need for a larger and more expensive roll-out. If the product appears to have the potential to be successful, the product might then be authorised and brought to the broader market more quickly.

How will it benefit fintech firms?

- These testing grounds are especially relevant in the fintech world, where there is a growing need to develop regulatory frameworks for emerging business models.
- The purpose of the sandbox is to adapt compliance with strict financial regulations to the growth and pace of the most innovative companies, in a way that doesn’t smother the fintech sector with rules, but also doesn’t diminish consumer protection.
- It allows the regulator, the innovators, the financial service providers (as potential deployers of the technology) and the customers (as final users) to conduct field tests to collect evidence on the benefits and risks of new financial innovations, while carefully monitoring and containing their risks.

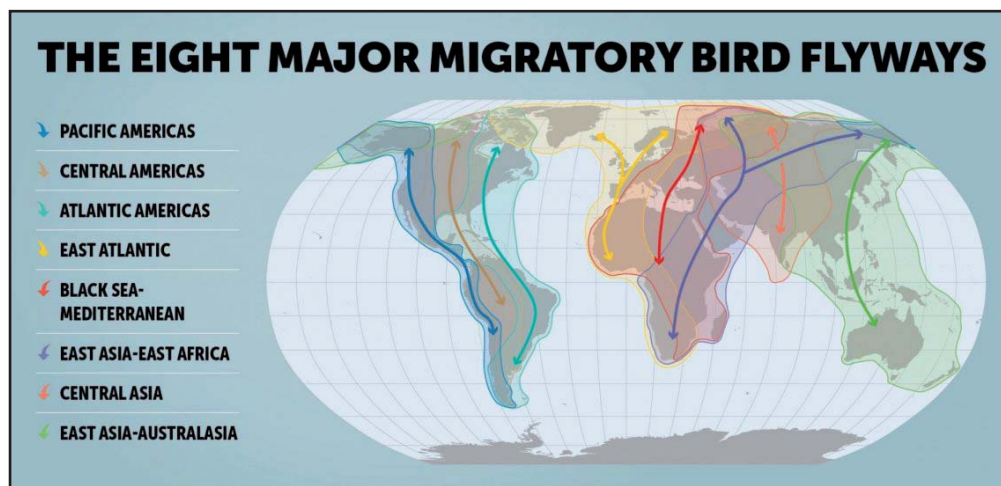
EAST ASIAN BIRDS MAKE ANDAMAN STOPOVER

◎ CONTEXT:

- For the 1st time, three new migratory birds from East Asia have been spotted in Andaman and Nicobar Islands.
- The migratory birds spotted were Horsfield’s Bronze Cuckoo, Zappey’s Flycatcher and Javan Pond Heron.
- The Andaman and Nicobar island area is an essential stop over for migratory birds following the East Asian-Australasian Flyway.

◎ ABOUT:

- A number of new sightings has increased post the 2004 Indonesian tsunami. The new records include the Mugimaki Flycatcher (*Ficedula mugimaki*), Blue-winged Pitta (*Pitta moluccensis*), Chinese Egret (*Egretta eulophotes*) and the Chinese Paradise Flycatcher (*Terpsiphone incei*).
- During their migration from north to south, these birds make a stopover at the Andaman and Nicobar Islands.
- These birds use Andaman and Nicobar Islands for a few week rest before they can fly along the East Asian-Australasian Flyway (EAAF). The EAAF extends from Arctic Russia and North America to the south Australian boundaries and includes the most of the east Asian regions including Andaman and Nicobar Islands.



- Andaman and Nicobar Islands, with just about 0.25 % the country's landmass, is home to about 350 species of exotic birds, according to an official estimate.
- Horsefield's Broze Cuckoo (*Chalcites Basalis*)
 - Green and brown plumage on its back
 - Tiny bird – 15 cm and 22 g
 - Famous for its repeated, loud and piercing whistle.
- Zappey's Flycatcher (*Cyanoptila cumatilis*)
 - Song bird that breeds in China and spends the winters in the Malay peninsula, Sumatra and Java
- Java Pond Heron (*Ardeola Speciosa*)
 - Found in Thailand and Cambodia.
 - Larger than Horsefield's Broze Cuckoo and Zappey's Flycatcher

- ◎ **SIGNIFICANCE:**
- Identifying flyways is an important measure towards joint conservation of the migratory birds as it passes through more than 30 countries during its annual cycle.
 - The flyways travelled by birds each spring and fall inspire our model for organizational alignment.

What is a flyway?

- A flyway is a flight path used in bird migration. Flyways generally span over continents and often oceans.
- The migration routes often follow a north-south axis covering more than 30 countries.
- They are seasonal in the sense that they move to milder climates at lower latitudes during their non-breeding season.
- Birdlife International has designated migratory routes as 8 flyways in the world.

Flyways in India :

- India is an integral part of 3 flyways. About 370 species of migratory birds visit the Indian subcontinent mostly the wetlands of India as staging sites.
- **Central Asian Flyway**
 - The Central Asian Flyway (CAF) covers a large continental area of Eurasia between the Arctic and Indian Oceans and the associated island chains.

- The Flyway comprises several important migration routes of water birds, most of which extend from the northernmost breeding grounds in the Russian Federation (Siberia) to the southernmost non-breeding (wintering) grounds in West and South Asia, the Maldives and the British Indian Ocean Territory.
- **East Asian-Australasian Flyway**
 - Encompasses 22 countries extending from Arctic Circle, through East and South-east Asia including eastern India and Andaman and Nicobar Islands to Australia and New Zealand.
 - About 178 waterbird species use this migration path every year.
- **Asian East African Flyway**
 - It is a group of well-established routes by which many species of birds migrate annually between mid-Palearctic breeding grounds in Asia and non-breeding sites in eastern and southern Africa.

TWO GREAT INDIAN BUSTARDS SATELLITE-TAGGED IN RAJASTHAN

◎ **CONTEXT:**

- Two female Great Indian Bustards (GIBs) have been satellite-tagged in the Desert National Park (DNP) in Rajasthan's Jaisalmer district.
- Besides tracking the movements of the birds, the scientists also hope to take out the egg of the bird from its nest and try to incubate it in an especially-created incubation facility.

◎ **ABOUT:**

The Satellite technology-

- The technique of satellite telemetry has been used for a long time in the last century to track the movements of birds.
- It usually involves a bird being fitted with a satellite transmitter weighing 170 grammes.
- Today, GPS technology is being used, giving scientists even more precise data.
- Using satellite tagging, scientists can know what route the birds take on their flights as well as what problems they face.
- They can also know whether all these populations are interacting with one another or not.
- The satellite tagging of the GIBs in Rajasthan is the third such attempt in India.
- It has been done in this very decade, first in Maharashtra-Karnataka and then in Kutch.
- The Kutch satellite tagging showed that GIBs do not use habitat where there are windmills.
- In the Maharashtra-Karnataka study, which was conducted in the Great Indian Bustard Sanctuary in Nannaj in Solapur district that borders north Karnataka, it was found that the birds spent some time in the sanctuary and the rest outside it.
- This led scientists to conclude that GIBs need mixed-landscape habitat. Thus, satellite-tagging gives crucial information for formulation of any action plan.

Key Facts:

- In Rajasthan, there are two populations of the GIB.
- One is in Pokhran and the other in the DNP. There is a distance 150-170 kilometres between the two places, as the crow flies.

- GIBs fly between these two pockets. They also fly over the international border to Pakistan (the Cholistan desert near Bahawalpur) and southwest to Kutch.

Great Indian Bustard:

- The great Indian Bustard or Indian bustard is a bustard found on the Indian subcontinent.
- A large bird with a horizontal body and long bare legs, giving it an ostrich like appearance, this bird is among the heaviest of the flying birds.
- The species is critically endangered by hunting and loss of its habitat, which consists of large expanses of dry grassland and scrub.
- These birds are often found associated in the same habitat as blackbuck.
- It is protected under Wildlife Protection Act 1972 of India.
- Great Indian bustards make local movements but these are not well understood although it is known that populations disperse after the monsoons.
- Males are said to be solitary during the breeding season but form small flocks in winter.
- Males may however distribute themselves close together and like other bustards they are believed to use a mating system that has been termed as an "exploded or dispersed lek". The male is polygamous.

GANGA HAS HIGHER PROPORTION OF ANTI-BACTERIAL AGENTS

◎ CONTEXT:

- Recently, a study commissioned by the Union Water Resources Ministry has confirmed a significantly higher proportion of organisms with antibacterial properties in River Ganga.

◎ ABOUT:

Anti-bacterial properties of Ganga:

- River Ganga is known for its self-purifying and anti-bacterial properties.
- A British scientist in 1896 confirmed that 'Vibrio cholera', the pathogen that causes cholera, could not survive in Ganga water for even few hours.
- The main reason for anti-bacterial property of river Ganga is the presence of bacteriophages.

What are Bacteriophages?

- They are prokaryotic viruses that infect the bacteria.
- Bacteriophages are a kind of virus that kill bacteria, they are frequently found in proximity to each other.

Key observations of the study:

- The study was commissioned by the Union Water Resources Ministry to probe the "unique properties" of the river Ganga.
- Also, these antibacterial properties varied widely along the length of the river, with it being high especially in upper stretches of the river.
- Though presence of bacteriophage species may not be unique to the Ganga, the study suggests there are many more of them in the Ganga than in other rivers.
- In the river Ganga, the bacteriophages were detected to be approximately 3 times more in proportion than bacterial isolates. As part of the assessment, five pathogenic species of bacteria (Escherichia, Enterobacter, Salmonella, Shigella, and Vibrio) were selected and isolated from the Ganga, Yamuna and the Narmada and their numbers compared with the bacteriophages present in the river water.

- The study was conducted by the Nagpur-based National Environmental Engineering and Research Institute (NEERI), a CSIR lab.
- It was titled "Assessment of Water Quality and Sediment To Understand Special Properties of River Ganga"

NEERI started its research in 2016.

- The NEERI team was tasked with assessing the water quality for "radiological, microbiological and biological" parameters in the Bhagirathi (a feeder river of the Ganga) and the Ganga at 20 sampling stations.

MEASLES OUTBREAKS IN COUNTRIES AROUND THE WORLD: WHO

◎ CONTEXT:

- Measles cases have continued to climb into 2019. Preliminary global data released by WHO shows that reported cases rose by 300 per cent in the first three months of 2019, compared to the same period in 2018. This follows consecutive increases over the past two years.
- The WHO called measles one of the world's most contagious diseases as around 1.1 lakh people lost their lives to the disease in 2017.

◎ ABOUT:**More findings by WHO:**

- The disease is almost entirely preventable through two doses of a safe and effective vaccine, but the data collected shows that global coverage for the first dose of the vaccine has stalled at 85 per cent, which is short of the 95 per cent needed to prevent outbreaks and the second dose global coverage stands at 67 per cent.
- Democratic Republic of the Congo, Ethiopia, Georgia, Kazakhstan, Kyrgyzstan, Madagascar, Myanmar, Philippines, Sudan, Thailand and Ukraine are the countries currently facing outbreaks causing deaths, mostly among children.
- However, the data shows that there are many countries facing outbreaks despite significant vaccination coverage. These countries include the United States of America, Israel, Thailand and Tunisia. The reason it gave for this is the disease spread fast among clusters of unvaccinated people.

What is Measles, its causes and symptoms?

- It is a highly contagious viral disease caused by measles virus.
- It is more likely among poorly nourished young children, especially those with insufficient vitamin A, or whose immune systems have been weakened by HIV/AIDS or other diseases.
- It is transmitted via droplets from the nose, mouth or throat of infected persons.
- Initial symptoms, which usually appear 10–12 days after infection, include high fever, a runny nose, bloodshot eyes, and tiny white spots on the inside of the mouth.
- Several days later, a rash develops, starting on the face and upper neck and gradually spreading downwards.
- The virus reduces immunity; children who have had measles – especially those who are undernourished – may die of pneumonia, diarrhoea and encephalitis later on.

How it can be prevented?

- The measles vaccine has been in use since the 1960s. It is safe, effective and inexpensive.

- Routine measles vaccinations for children, combined with mass immunization campaigns in countries with low routine coverage, are key public health strategies to reduce global measles deaths.
- 2 doses of measles vaccine are given either alone or in a measles-rubella (MR), measles-mumps-rubella (MMR), or measles-mumps-rubella-varicella (MMRV) combination. The second dose is given to vaccinated children who fail to develop immunity from the first dose.

What are the global efforts to eliminate it?

- WHO is the lead technical agency responsible for coordination of immunization and surveillance activities supporting all countries.
- Under the Global Vaccine Action Plan, measles and rubella are targeted for elimination in five WHO Regions by 2020.
- What are India's efforts to eliminate it?
- With support from WHO, in November 2010, India launched a massive polio-style measles vaccination project in 14 high-burden states, in a three-phase campaign.
- With two phases of the measles vaccination campaign completed, and the third phase on-going, more than 102 million children in 344 districts have been vaccinated, achieving between 87% and 90% coverage.
- Gujarat has gone from nearly 1000 cases in 2010 to none in 2012.
- Bihar, once the state with the lowest immunization coverage levels in the country, the proportion of children immunized against common childhood diseases tripled as polio eradication activities intensified (from 18.6% in 2005 to 66.8% in 2010).

NARCOTIC DRUGS

◎ CONTEXT:

- The Ministry of Home Affairs (MHA) on suspended the cross-Line of Control (LoC) trade in Jammu and Kashmir, citing “funneling of illegal weapons, narcotics and fake currency” as reasons.

◎ ABOUT:

What are Narcotic drugs?

- They are the drugs that produces analgesia (pain relief), narcosis (state of stupor or sleep), and addiction (physical dependence on the drug). In some people narcotics also produce euphoria (a feeling of great elation).
- Examples of narcotics are-
 - Opium - The most important alkaloids found in opium is morphine, which is primarily responsible for opium's narcotic properties.
 - Heroin or diacetylmorphine- In 1898 it was developed from morphine by the Bayer Company in Germany. It is 5 to 10 times as potent as morphine itself and is used by most narcotic addicts.
- Because heroin proved to be even more addictive than morphine, a search for synthetic substitutes was undertaken that resulted in such opioids as meperidine (Demerol), methadone, and levorphanol (Levo-Dromoran).

Why they are illegal?

- Addictive: Most persistent users of heroin or other narcotics follow a classic progression from inhaling the drug to injecting it subcutaneously and then to injecting it intravenously; each of these stages usually brings a greater likelihood of addiction with it.
- Need for larger doses: With increasing use of the drug, euphoria and relaxation eventually give way to drug tolerance and physical dependence; the addict must use progressively larger doses to achieve the same pleasurable effects.

- Affects nervous system: Once the drug wears off the person must endure painful symptoms of physical and psychological withdrawal. An overdose of narcotics can severely depress the central nervous system, with respiratory failure and death as a consequence.
- Immoral behaviour towards others: A person who has taken these drugs often does not have control over his mind and body. He may start performing acts unacceptable in the society- attacking self, attacking the fellow passer-by, etc.

What are the medical efforts to control them?

- Most effective therapy for narcotics addicts involves the synthetic opiate methadone, which, though itself addictive, blocks the addict's craving for heroin and provides no disruptive euphoric effects of its own.
- **Narcotic antagonists:**
 - They block the actions of the narcotics, reverse their effects and they can often save the life of the victim. Examples include naloxone, naltrexone, and nalorphine.
 - Narcotic receptors have been identified in the brain. Narcotics act at these receptors to produce their many effects, whereas narcotic antagonists block these receptors and prevent narcotics from reaching them and exerting their actions.

What are the government efforts to control them?

- India is a signatory to The UN Single Convention on Narcotics Drugs 1961, The Convention on Psychotropic Substances, 1971 and The Convention on Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988.
- The National Policy on Narcotic Drugs and Psychotropic Substances is based on the Directive Principles, contained in Article 47 of the Indian Constitution, which direct the State to endeavour to bring about prohibition of the consumption, except for medicinal purposes, of intoxicating drugs injurious to health.
- **Three central laws are:**
 - Drugs and Cosmetics Act, 1940,
 - The Narcotic Drugs and Psychotropic Substances Act, 1985, and
 - The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.
- The Narcotics Control Bureau is the apex coordinating agency constituted under The Narcotic Drugs and Psychotropic Substances Act, 1985 to take measures against illicit traffic in narcotic drugs.
- The aspect of drug demand reduction is handled by the Ministry of Social Justice & Empowerment and that of treatment of drug addicts and their rehabilitation falls under the domain of the Ministry of Health.

WORLD HAEMOPHILIA DAY

◎ **CONTEXT:**

- April 17 is recognised as **World Haemophilia Day (WHD)** worldwide to increase awareness of haemophilia and other inherited bleeding disorders.

◎ **ABOUT:**

World Haemophilia Day

- It was started in 1989 by the World Federation of Haemophilia (WFH) which chose to bring the community together on April 17 in honour of WFH founder Frank Schnabel's birthday.
- This year's edition marked as the 30th World Haemophilia Day with the theme of Reaching out - connect to your community.

- Its campaign will feature examples of WFH outreach initiatives such as organizing regional workshops, raising awareness of bleeding through media coverage or training health professionals and collecting data. It will combine these examples with submissions from our community about outreach efforts in their own regions or ideas about what would be helpful for future initiatives.
- This landmark day also helps to illustrate the importance of the WFH Humanitarian Aid Program—an important endeavour for the WFH that provides a range of integrated care development training programs to ensure the local infrastructure and medical expertise are available to optimize and appropriately use donated products.

Haemophilia

- It is a medical condition, mostly inherited, in which the ability of blood to clot is severely reduced, so that even a minor injury can cause severe bleeding.
- Because of the genetics involved in the way the sex of a child is determined, men are more vulnerable to haemophilia than women.

Royal Disease

- Britain's Queen Victoria (1819-1901) is the world's most widely known carrier of haemophilia. From her, the condition spread among a number of European royal families, which is why haemophilia was once known as the "royal disease". Victoria passed on a defective X chromosome to three of her children. Her son Prince Leopold died at age 30 as a result of loss of blood after injury. Leopold's daughter, Princess Alice of Albany, was a carrier whose son inherited haemophilia and died at age 21.
- The sex of an individual is determined by a pair of "sex chromosomes" (a chromosome is a DNA molecule that contains genetic information). Females are identified with an XX pair of sex chromosomes, and males with an XY pair. When an X chromosome from the mother pairs up with the father's X chromosome, the offspring is XX (female); when an X chromosome from the mother pairs up with the father's Y chromosome, the offspring is XY (male).
- Haemophilia is caused by a defect in the X chromosome. If a girl is born with one defective X chromosome, her other X chromosome can compensate for it. In such a case, she is a carrier of haemophilia but will not suffer from the condition herself. Only if both her X chromosomes are defective will she suffer from haemophilia herself. On the other hand, if a boy is born with a defective X chromosome, he does not have the second X chromosome to compensate for it, and will suffer from haemophilia. That is the reason haemophilia is more common among men.

WHO GUIDELINES ON USE OF DIGITAL HEALTH TECHNOLOGY

- ◎ **CONTEXT:**
 - WHO today released new recommendations on 10 ways that countries can use digital health technology, accessible via mobile phones, tablets and computers, to improve people's health and essential services.
- ◎ **FACTS TO KNOW:**
 - Over the past two years, WHO systematically reviewed evidence on digital technologies and consulted with experts from around the world to produce recommendations on some key ways such tools may be used for maximum impact on health systems and people's health.
 - One digital intervention already having positive effects in some areas is sending reminders to pregnant women to attend antenatal care appointments and having children return for vaccinations.
 - Other digital approaches reviewed include decision-support tools to guide health workers as they provide care; and enabling individuals and health workers to communicate and consult on health issues from across different locations.

- The guidelines demonstrate that health systems need to respond to the increased visibility and availability of information. People also must be assured that their own data is safe and that they are not being put at risk because they have accessed information on sensitive health topics, such as sexual and reproductive health issues.
- The guidelines stress the importance of providing supportive environments for training, dealing with unstable infrastructure, as well as policies to protect privacy of individuals, and governance and coordination to ensure these tools are not fragmented across the health system.
- They encourage policy-makers and implementers to review and adapt to these conditions if they want digital tools to drive tangible changes and provide guidance on taking privacy considerations on access to patient data.
- The guidelines also make recommendations about telemedicine, which allows people living in remote locations to obtain health services by using mobile phones, web portals, or other digital tools. WHO points out that this is a valuable complement to face-to-face interactions, but it cannot replace them entirely. It is also important that consultations are conducted by qualified health workers and that the privacy of individuals' health information is maintained.
- The guideline emphasizes the importance of reaching vulnerable populations, and ensuring that digital health does not endanger them in any way.

WHO's work on Digital Health

- This guideline represents the first of many explorations into the use of digital technologies and has only covered a fraction of the many aspects of digital health.
- In 2018, governments unanimously adopted a World Health Assembly resolution calling on WHO to develop a global strategy on digital health to support national efforts to achieve universal health coverage. That strategy is scheduled to be considered at the World Health Assembly in 2020.
- Although WHO is expanding its focus on digital health, the Organization has been working in this area for years, for example, through the development of the e-Health Strategy Toolkit in 2012, published in collaboration with International Telecommunications Union (ITU).
- To support governments in monitoring and coordination of digital investments in their country, WHO has developed the Digital Health Atlas, an online global repository where implementers can register their digital health activities.
- WHO has also established innovative partnerships with the ITU, such as the BeHe@lthy, BeMobile initiative for the prevention and control of non-communicable diseases, as well as efforts for building digital health capacity through the WHO Regional Office for Africa.
- Over the years, WHO has released a number of resources to strengthen digital health research and implementation, including the mHealth Assessment and Planning for Scale (MAPS) toolkit, a handbook for Monitoring and Evaluation of Digital Health, and mechanisms to harness digital health to end TB.

WORLD HAEMOPHILIA DAY

- © **CONTEXT:** • **World Happiness Report released by Sustainable Development Solutions Network for the UN.**
- © **FACTS TO KNOW:** • The World Happiness Report is a landmark survey of the state of global happiness that ranks 156 countries by how happy their citizens perceive themselves to be. This is the 7th World Happiness Report. (The first was released in April 2012 in support of a UN High level meeting on "Wellbeing and Happiness: Defining a New Economic Paradigm".)

- This year's World Happiness Report focuses on happiness and the community: how happiness has evolved over the past dozen years, with a focus on the technologies, social norms, conflicts and government policies that have driven those changes.
- Various factors that determine the happiness levels of a country include life expectancy, social support, income, freedom, trust, health and generosity, amongst others.
- According to reports, Finland is the happiest country amongst 156 nations surveyed by the UN Sustainable Development Solutions Network.
- India has dropped down seven spots (140th rank) in the happiness rankings as compared to its 2018 ranking (133rd rank).
- In 2015, India was on 117 spot, in 2016 it was ranked on 118 spot. The position went up to 122 in 2017, according to reports.
- The immediate neighbours including Pakistan (67th rank), Bhutan (95th rank), Nepal (100th rank), Bangladesh (125th rank) and Sri Lanka (130th rank) are way ahead of India in the happiness rankings. As per the report, China at 93, is also way ahead of India.
- List of top 10 happiest countries of the world: Finland (for the second consecutive year), has topped this list, followed by Denmark, Norway, Iceland, Netherlands, Switzerland, Sweden, New Zealand, Canada and Austria.
- List of top 10 unhappiest countries of the world: South Sudan has topped the list of the unhappiest countries of the world, followed by Central African Republic, Afghanistan and Tanzania (both at 3rd spot of unhappiest countries), Rwanda, Yemen, Malawi, Syria, Botswana and Haiti.

Methods and Philosophy of World Happiness Report

- The rankings of national happiness are based on a Cantril ladder survey. Nationally representative samples of respondents are asked to think of a ladder, with the best possible life for them being a 10, and the worst possible life being a 0. They are then asked to rate their own current lives on that 0 to 10 scale. The report correlates the results with various life factors.
- In the reports, experts in fields including economics, psychology, survey analysis, and national statistics, describe how measurements of well-being can be used effectively to assess the progress of nations, and other topics.
- Each report is organized by chapters that delve deeper into issues relating to happiness, including mental illness, the objective benefits of happiness, the importance of ethics, policy implications, and links with the Organisation for Economic Co-operation and Development's (OECD) approach to measuring subjective well-being and other international and national efforts.

Sustainable Development Solutions Network (SDSN) of UN

- The Sustainable Development Solutions Network (SDSN) was launched in 2012 by UN to mobilize global scientific and technological expertise to promote practical problem solving for sustainable development and implement the Sustainable Development Goals (SDGs).
- Following their adoption, SDSN is now committed to supporting the implementation of the SDGs at national and international levels.
- SDSN aims to accelerate joint learning and help to overcome the separation of technical and policy work by promoting integrated approaches to the interconnected economic, social, and environmental challenges confronting the world. SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society.
- The organization and governance of SDSN enables leaders from all regions to participate in the development of the network, while at the same time ensuring effective structures for decision making and accountability.
- United Nations Academic Impact (UNAI) collaborates with SDSN to promote the implementation and achievement of the SDGs, particularly SDG 4 on quality

education.

- As a part of the collaboration, UNAI and SDSN mobilize universities and other institutions of higher learning to promote teaching, applied research, and problem solving on a range of issues.

AUSINDEX NAVAL EXERCISE

◎ CONTEXT:

- Recently, the third iteration of bilateral naval exercise, **AUSINDEX**, an acronym for **Australia India Exercise**, has been concluded (April 2-16) between India and Australia.
- The strategic trust on display, during this exercise, is representative of a deepening strategic alignment between these two countries.

◎ ABOUT:

Past:

- In November 2018, India announced the Australian infrastructure Financing Facility for the Pacific. This initiative will boost Australia's support for infrastructure development in Pacific countries.

Present :

- This joint naval exercise strengthens the bilateral relationship between India and Australia.
- The aim of the exercise is, "To strengthen and enhance mutual cooperation and interoperability between the IN and RAN, providing opportunities for interaction and exchange of professional views between the personnel of the two navies".
- This saw the largest ever defence peacetime deployment of Australia defence assets and personnel to India.
- The exercise was the most complex ever carried out between our defence forces. For the first time, Indian Navy undertook anti-submarine warfare exercises.
- This exercise showed trust and cooperation between these two nations as Indian and Australian maritime patrol P-8 aircraft flew coordinated missions over the Bay of Bengal.
- The Indian Navy's Eastern Naval Command hosted an impressive array of high-end Australian military hardware, including the Royal Australian Navy's flagship, HMAS Canberra and the submarine, HMAS Collins.
- The Canberra is the size of a small aircraft carrier. It can carry over 1,000 troops and 16 helicopters.
- These vessels were joined by frigates, aircraft and around 1,200 sailors, soldiers and airmen and women.

Geo-political position of India and Australia:

- Both countries emphasizes on free, open and independent democracies, as champions of international law, as supporters of an open and inclusive Indo-Pacific.
- A key element of Australia's Indo-Pacific strategy is partnering with India in the vibrant Indian Ocean region.
- India is a leader in this region and Australia is a natural partner for addressing shared challenges.

◎ SIGNIFICANCE:

- To combat transnational crime, terrorism, people smuggling and illegal fishing.
- To enjoy a peaceful and prosperous Indian Ocean region.
- As the nations with one of the largest Indian Ocean coastlines and with more than half

of our goods trade departing Indian Ocean ports, Australia is committed to address humanitarian and environmental challenges in India's Indian Ocean neighbourhood.

Other Steps taken by India:

- India will establish a Pacific Fusion centre to provide real-time surveillance data for countries across the region as well as enhancing policing and military training both bilaterally and through regional centres.
- India will also build diplomatic and economic relationships with Southeast Asia Economic Governance and Infrastructure Initiative, which will help to unlock Southeast Asia's next wave of economic growth.

INDO-FRENCH NAVAL EXERCISE 'VARUNA-18' BEGINS OFF GOA COAST

◎ CONTEXT:

- The navies of India and France are engaged in a joint bilateral exercise, "Varuna-18", in the Arabian Sea off the Goa coast.
- The drill would include anti-submarine, air defence and asymmetric engagement exercises.

◎ ABOUT:

- The two countries would explore the measures to facilitate the operational-level interactions between their respective armed forces and increase mutual cooperation, considering the common global threats.
- "Varuna-18" would be conducted in three sea areas -- the Arabian Sea, the Bay of Bengal and the South Western Indian Ocean.
- The first phase would see the participation of the French Navy's anti-submarine frigate, Jean de Vienne.
- The second leg of the exercise is being held off the Chennai coast in April and the third would be held near the La Reunion Island in May.

Key Facts:

- The Indian Navy's submarine, Kalvari, P8-1 and Dornier maritime patrol aircraft and MiG 29K fighter aircraft are also participating in the exercise.
- Besides the French Navy's Jean de Vienne, the Indian Navy's destroyer, INS Mumbai, and frigate INS Trikand are among the vessels participating in the exercise.
- The naval forces of India and France have been conducting joint bilateral exercises since 1993.
- Since 2001, these exercises are called "Varuna" and 15 editions of the same have been held till date.
- In 2017, the "Varuna" was conducted in three sea areas in the European waters.

◎ SIGNIFICANCE:

- Maritime cooperation between India and France is crucial in order to maintain the safety of international sea lanes for unimpeded commerce and communications in accordance with the international laws, for countering maritime terrorism and piracy and building maritime domain awareness.
- The exercise also comes at a time when the Indian Ocean is witnessing an increased Chinese naval presence.
- Real Admiral Didier Piaton, who is heading the French side for the exercise, said India was a major partner of France in the Indian Ocean region.
- The Varuna series of exercises has grown in scope and complexity over the years and provide an opportunity to both Navies to increase interoperability and learn from each

other's best practices .

REACTIONARY FORCE

◎ CONTEXT:

- A decision to set up a joint border “reaction force” was announced during the visit of Pakistan’s Prime Minister to Iran, which was a first visit since he came to power.
- The visit was aimed to resolve the issue of attacks on both sides of the frontier, to combat terrorism and to find ways to increase trade and cooperation in energy and other areas.

◎ ABOUT:

Background :

- On 13th February, 2019 around 27 members of the elite Revolutionary Guards in Sistan-Baluchistan, which borders Pakistan, is a volatile south-eastern Iranian province, were killed in an attack. It has been the scene of frequent attacks on Iran’s security forces.
- Iran alleged that a Pakistani suicide bomber, which operates mostly out of bases in Pakistan, carried out the attack, which was claimed by the Sunni jihadist group Jaish al-Adl (Army of Justice).



- In return, the President of Iran asked Pakistan to act decisively against anti-Iranian terrorists. But Pakistan alleged that the gunmen who killed 14 members of Pakistan’s security forces in Balochistan last week had training and logistic camps inside Iranian areas bordering Pakistan.
- To resolve this increased tensions over attacks on both sides of the frontier, the Prime Minister of Pakistan visited Iran.
- The relations between the nations have, however, had a bad patch as well due to security issues along the border.

Iran’s geo-political position

- It highlights that Iran will not allow terrorist activities from their soil.
- On the trade front, Iran showed its willingness to boost trade and business ties with Pakistan-
 - Iran is ready to meet Pakistan’s oil and gas demands and to increase electricity exports to Pakistan ten-fold.
 - To increase cooperation between Chabahar port in southeast Iran and Pakistan’s Gwadar port, and that Tehran could facilitate the construction of a railroad connecting Istanbul to Islamabad.

- Chabahar, only about 100 kilometres (62 miles) from the Pakistan border and located on the Indian Ocean, is Iran's largest port outside the Gulf and the only one exempt from USA sanctions.
- That is due mainly to the pivotal role of the port, and a planned railway line, in breaking landlocked Afghanistan's dependence on Pakistan for trade with the world, especially with Pakistan's rival India.

- Iran stressed upon non-interference of any other country in impacting bilateral ties between Iran and Pakistan hinting at the USA. As, USA re-imposed harsh economic sanctions on the Iran as part of its "maximum pressure" campaign against it.

Pakistan's geo-political position

- Pakistan is a close ally of the United States and Saudi Arabia, both of which have ratcheted up pressure on Iran over its alleged meddling in regional affairs.

The USA's geo-political position

- USA last year pulled out of the 2015 Iran nuclear deal signed by Tehran and world powers and re-imposed harsh economic sanctions on the Islamic republic as part of a "maximum pressure" campaign.
- It adopts policy of isolating Iran by pressuring other countries in the region to implement the sanctions imposed by it. It wants to isolate Iran for meddling in regional affairs.

GOVERNMENT SUSPENDS BORDER TRADE IN CRACKDOWN ON TERROR FINANCING

◎ CONTEXT:

- Recently, The Home Ministry issued orders to suspend trade across the Line of Control (LoC) in Jammu and Kashmir.

◎ ABOUT:

- This trade was meant to facilitate exchange of consumer goods through two trade facilitation centres at Salamabad, Uri, Baramulla and Chakkan-da-Bagh in Poonch, which became the hotbed of militant activity to enhance terror funding activities.
- **Causes behind this suspension:**
 - This trade has changed its character to mostly third-party trade and products from other regions, including foreign countries, are finding their way through this route.
 - Unscrupulous and anti-national elements are using the route as a conduit for hawala money, drugs and weapons.
 - One of the main sources of illegal income was the carpets and dry fruits trade route.
 - A significant portion of these funds are also used to sustain home grown terrorists. This money is used to finance their food, provisions, upkeep and other expenses that they incur.
- **Impact:**
 - The decision will immediately impact around 300 traders, and more than 1,200 people who are directly and indirectly associated with the trade on this side.

◎ SIGNIFICANCE :

- This step aims to stop Pakistan based groups from using cross LoC routes to move hawala money.
- The step deals a heavy blow to small cross-border trade between India and Pakistan.
- The aim was to crack down on all sources of terror funding, as well as stopping the misuse of cross-LoC trade routes by Pakistan based groups "for funnelling illegal weapons, narcotics and fake currency".

TENDER VOTES

◎ **CONTEXT:**

- Polling officials at a booth in Dalgaoon in Assam's Mangaldoi constituency let a woman cast a tender vote after she complained against one of them having forced her to vote for a party she did not support.

◎ **ABOUT:**

What are tender votes?

- A voter is allowed to cast a "tender vote" if he or she finds out that someone has already voted in his or her name.
- Tender votes are cast on ballot papers and then sealed and locked away.
- A tendered ballot paper, as per Rule 49P of the Conduct of Elections Rules, is given to the voter and they will be required to sign their name on the list of tendered votes.
- A tendered ballot paper is the same as the ballot paper displayed on the balloting unit, except that it shall be endorsed on the back with the words, "Tendered Ballot Paper" either stamped by the returning officer or written by the presiding officer at the time of issuing it.

When it is casted?

- It was seen that when some voters found on reaching the polling booth that someone had already voted in their name, they would get agitated and go back. In this situation, such voters can cast a tender vote, which is their right under election laws.
- After marking their choice of candidate with the help of the arrow cross mark rubber stamp, the voter should hand over the tendered ballot paper to the presiding officer, who will keep it in a separate cover. In such a case, the voter will not cast their vote on the EVM.

What is the challenge for voter before casting this vote?

- In case the identity of the voter is challenged by a polling agent of any candidate on the grounds that they are not the person whose name is listed on the rolls, the presiding officer will ask the challenger to provide evidence in proof of his claim.
- Similarly, the presiding officer will ask the voter for proof of their identity. They can use their Election Photo Identity Card or any other supporting document such as passport or ration card for this purpose.
- If the challenge is not established, the voter will be allowed to vote. However, if the challenge is established, the voter will be barred from voting and handed over to the police with a written complaint from the presiding officer.

CHEMISTS AND DRUGGISTS ARE PAST; FROM NOW, ALL WILL BE PHARMACIES

◎ **CONTEXT:**

- First coined in 1945, the words 'chemist' and 'druggist' are headed for a change, with the Union Health Ministry replacing them with 'pharmacy'.
- Drugs and Technical Advisory Board (DTAB) has also given its approval to replace the words 'chemist' and 'druggist' with the term 'pharmacy'.

◎ **ABOUT:**

Who is a pharmacist?

- According to Drugs and Cosmetics rules, the terms pharmacy or pharmacist are currently used by only those license holders who satisfy two conditions:
 - Employ the services of a registered pharmacist

- Run a pharmacy for compounding against prescription from a doctor.

Who are Chemists and Druggists?

- 'Chemists and Druggists' was to be displayed by those licensees who employ the services of a registered pharmacist but who do not maintain a 'pharmacy' for compounding. The pharmacist mixes different ingredients together to create the individualised medication.
- Compounding: The process of preparing a drug specifically for a buyer, based on a prescription from his or her doctor.

Reasons for change in nomenclature:

- **Out-dated:** The distinction between the terms pharmacy on one hand and 'chemist and druggist' on the other is out-dated because no pharmacists are currently practicing 'compounding'. This is only done by the drug manufacturers.
- **Negative connotation:** At present, the word 'drug' is looked upon as more clandestine, and as addiction to chemicals, and thus it's not suitable while referring to a professional pharmacist.
- **Uniformity:** This is now also in concurrence with the international practice of calling a medical shop selling medicines by this name ['pharmacy'] and to also provide an identity and sense of value to the practising pharmacist at the outlets.
- **Professionalism:** The term 'pharmacy' brings in a sense of value to one's identity and thus instils professionalism among practitioners.

Drugs and Technical Advisory Board (DTAB)

- DTAB is highest statutory decision-making body on technical matters related to drugs in the country.
- It was constituted as per the Drugs and Cosmetics Act, 1940.
- It is part of Central Drugs Standard Control Organization (CDSCO) in the Ministry of Health and Family Welfare.

GENOME SEQUENCING

© CONTEXT:

- In an indigenous genetic mapping effort, nearly 1,000 rural youth from the length and breadth of country will have their genomes sequenced by the Council of Scientific and Industrial Research (CSIR).
- The project aims at educating a generation of students on the "usefulness" of genomics.
- The project is an adjunct to a much larger government-led programme, still in the works, to sequence at least 10,000 Indian genomes.

© ABOUT:

What is genome sequencing?

- Genome: It is an organism's complete set of DNA, including all of its genes.
- Each genome contains all of the information needed to build and maintain that organism. In humans, a copy of the entire genome—more than 3 billion DNA base pairs—is contained in all cells that have a nucleus.
- Genome sequencing: It is figuring out the order of DNA nucleotides, or bases, in a genome—the order of As, Cs, Gs, and Ts that make up an organism's DNA. The human genome is made up of over 3 billion of these genetic letters.

- Sequencing the genome doesn't immediately lay open the genetic information of an entire species. Even with a rough draft of the human genome sequence in hand, much work remains to be done. Scientists still have to translate those strings of letters into an understanding of how the genome works.

What is the methodology?

- Genomes will be sequenced based on a blood sample.
- Every person whose genomes are sequenced will be given a report. The participants would be told if they carry gene variants that make them less responsive to certain classes of medicines. For instance, having a certain gene makes some people less responsive to clopidogrel, a key drug that prevents strokes and heart attack.
- The sequencing to be done at the CSIR-Institute of Genomics and Integrative Biology (IGIB) and the Centre for Cellular and Molecular Biology (CCMB).

How is it useful?

- Determining genetic traits and gene-disease link: Ever since the human genome was first sequenced in 2003, it opened a fresh perspective on the link between disease and the unique genetic make-up of each individual. Nearly 10,000 diseases — including cystic fibrosis, thalassemia — are known to be the result of a single gene malfunctioning. While genes may render some insensitive to certain drugs, genome sequencing has shown that cancer too can be understood from the viewpoint of genetics, rather than being seen as a disease of certain organs.
- Mapping population diversity: Participants of genome-sample collections represent diversity of the country's population.
- It will help us to compare causes of diseases across other countries. For instance, in developed countries diarrhoeal infections are rarer than in India. It will help understanding of role of genes in this and can track health changes over long periods.
- This project would prove India's capabilities at executing whole-genome sequencing.
