

Abhimanu

Weekly current affairs Series

Week: IV, May 2018

Abhimanu's IAS Study Group
Chandigarh

NATIONAL ECONOMIC AFFAIRS

CSC, SIDBI ink pact for financial support to village level entrepreneurs

- Small Industries Development Bank of India (SIDBI) has signed a Memorandum of Understanding (MoU) with the Special Purpose Vehicle (SPV) that operates Common Service centres (CSCs).
- What are CSCs?
- The CSC is a strategic cornerstone of the National e-Governance Plan (NeGP), approved by the Government in May 2006, as part of its commitment in the National Common Minimum Programme to introduce e-governance on a massive scale.
- The CSCs would provide high quality and cost-effective video, voice and data content and services, in the areas of e-governance, education, health, telemedicine, entertainment as well as other private services. A highlight of the CSCs is that it will offer web-enabled e-governance services in rural areas, including application forms, certificates, and utility payments such as electricity, telephone and water bills.

About SIDBI:

- Small Industries Development Bank of India (SIDBI) set up on 2nd April 1990 under an Act of Indian Parliament, acts as the Principal Financial Institution for Promotion, Financing and Development of the Micro, Small and Medium Enterprise (MSME) sector as well as for co-ordination of functions of institutions engaged in similar activities.
- The MSME sector, the focused business domain for SIDBI, has been an important pillar of the Indian Economy, contributing up to 33% in the country's Gross Value Added (GVA) as per FY 2014-15, with 51 million enterprises providing employment to over 117 million Indians.
- Over the years, SIDBI has been working towards the sustainable development of MSME sector, pioneering efforts that have manifested in creation of economic wealth, its distribution for an egalitarian society while preserving the ecological wealth of the country.
- These include the innovative Credit Plus model, where credit is supplemented with advisory and mentoring facilities to MSMEs.
- Some of SIDBI's other revolutionary initiatives include the MFI-led Microfinance movement in India that has nurtured and strengthened more than 100 MFIs and facilitated creation of SFBs, introducing a culture of energy efficient and sustainable finance for the MSME sector, introducing Venture Capital, Risk Capital, Reverse Factoring and other innovative facilities that have been later adopted by various public and private players in the country.

A year on, UDAN is yet to soar

- UDAN scheme has recently completed one year. The UDAN (Regional Connectivity Scheme) was launched in 2016 aims to develop the regional aviation market and provide connectivity to un-served and under-served airports of the country through revival of existing air-strips and airports.

Analysis:

- The promise of cheap flights between smaller cities still eludes many. A year since the Centre unveiled the regional air connectivity scheme (RCS) with the aim to connect tier-2 and tier-3 cities and make flying

affordable for the masses, a mere 15% or 70 of the total 453 routes awarded to various airline and helicopter operators have taken off.

- None of the 75 helicopter routes connecting hilly terrain and islands have commenced yet.
- Out of the 56 unserved airports that the government planned to add to the aviation map in a year, only 16 are ready, and 10 of the 25 under-served airports have been developed.
- Two rounds of bidding have ended for routes under the scheme, also known as Ude Desh Ka Aam Nagrik (UDAN), in the past year. Operators are offered a subsidy by the Centre and the State governments to keep airfares low.
- Airlines have to set aside half the total seats in an aircraft at a discounted rate of ₹2,500 each per hour of flight and helicopters need to offer a maximum of 13 seats for ₹2,500 each per 30 minutes of flight. Operators get exclusive rights to fly on a route for three years, to protect them from competition.
- In March last year, after the first round of bidding, five operators were awarded 128 routes, which had to be opened by September-end. A year later, less than half of these routes are operational.
- While established players such as Air India subsidiary Alliance Air, budget carrier SpiceJet and regional airline TruJet have been able to deliver on most or all the routes awarded to them, smaller players like Air Odisha and Air Deccan, which won 65% of the routes, have only been able to service less than 15% of the total routes awarded in round one. Air Odisha has commenced flights on eight of the 50 routes it was awarded and Air Deccan has started flying in 10 of 34 it won.
- While we are two months away from the deadline to start operations for routes awarded in the second round, three of 15 operators have commenced services on 10 routes of the total 325 routes awarded. Jet Airways and IndiGo have announced that they will be starting flights on some of the routes in June and July, respectively.
- In fact, smaller players like Air Odisha and Air Deccan have struggled to raise sufficient capital for their operations, hire trained manpower and lease planes, and have slowed down the implementation of the scheme. The two started their operations with a combined fleet of four 19-seater Beechcraft B-1900D aircraft.
- Services had been irregular, often due to lack of trained pilots or when the few planes they have were grounded due to technical issues. The cancellation rates of flights for Air Odisha and Air Deccan have been as high as 80% for some of the months.
- When UDAN scheme was started, entry barriers were low to attract more players. But there is always a downside that they will take time to build efficient operations.
- The success of the scheme largely depends on interest from bigger players such as IndiGo, SpiceJet and Jet Airways. Significantly, SpiceJet and IndiGo have not sought any government subsidy for most of their routes.

NATIONAL POLITY

Pandit Madan Mohan Malaviya National Mission on Teachers and Training (PMMMNMTT)

- The National Institute of Educational Research and Planning (NIEPA) is in the process of rolling out the National Resource centre, an initiative that is part of the Pandit Madan Mohan Malaviya National Mission on Teachers and Training (PMMMNMTT).

About PMMMNMTT:

- This scheme was launched in March 2015 by Ministry of Human Resource Development
- Under the scheme Government will set up 50 Centres of Excellence for Curriculum and Pedagogy with necessary emphasis on Maths and Science.
- It is mandated to ensure a coordinated approach so as to holistically address the various shortcomings relating to teachers and teaching across the educational spectrum ranging from school education to higher education including technical education; using the best international practices for excellence.
- It will also empower teachers and faculty through training, re-training, refresher and orientation programmes in generic skills, pedagogic skills, discipline specific content upgradation, ICT and technology enabled training and other appropriate interventions.

Components of PMMMNMTT

- Setting up 30 Schools of Education,
- 50 Centres of Excellence for Curriculum and Pedagogy,
- Two Inter University Centres,
- National Resource Centre,
- Five Centres of Academic Leadership and Educational Management,
- Subject Based Networks and Workshops and Seminars,

This will strengthen teachers, and in turn will improve the understanding of the students to grasp basic concepts and help them learn better.

Model Contract Farming Act, 2018

- The government has released the Model Agriculture Produce and Livestock Contract Farming and Services (Promotion & Facilitation) Act, 2018. It is drafted as a promotional and facilitative act and not regulatory in its structure.
- With a view to integrate farmers with bulk purchasers including exporters, agro- industries etc. for better price realization through mitigation of market and price risks to the farmers and ensuring smooth agro raw material supply to the agro industries, Union Finance Minister in the budget for 2017-18 announced preparation of a "Model Contract Farming Act" and circulation of the same to the States for its adoption.

What is contract farming?

- Under contract farming, agricultural production (including livestock and poultry) can be carried out based on a pre-harvest agreement between buyers (such as food processing units and exporters), and producers (farmers or farmer organisations).
- The producer can sell the agricultural produce at a specific price in the future to the buyer as per the agreement. Under contract farming, the producer can reduce the risk of fluctuating market price and demand. The buyer can reduce the risk of non-availability of quality produce.

Salient features of the Act:

- Under the draft Model Act, the producer can get support from the buyer for improving production through inputs (such as technology, pre-harvest and post-harvest infrastructure) as per the agreement. However, the buyer cannot raise a permanent structure on the producer's land. Rights or title ownership of the producer's land cannot be transferred to the buyer.
- It provides for a "Registering and Agreement Recording Committee" or an "Officer" at the district/block/taluka level for online registration of sponsor and recording of agreement. The contracted produce will also be covered under crop/livestock insurance in operation.
- In a bid to allay the fears of individual farmers, the act explicitly states that no permanent structure can be developed on farmers' land/premises under such contracts.
- It gives no right, title of interest of the land to the sponsor. Similarly, no rights, title ownership or possession to be transferred or alienated or vested in the contract farming sponsor.

- The act provides for the promotion of Farmer Producer Organization (FPOs)/Farmer Producer Companies (FPCs) to mobilise small and marginal farmers. The FPO/FPC can also be a contracting party if so authorized by the farmers.
- As per the law, the contracting party will be obliged to buy the entire pre-agreed quantity of one or more of agricultural produce, livestock or its product of contract farming producer as per contract.
- It also envisages the setting up of Contract Farming Facilitation Group (CFFG) for promoting contract farming and services at village/panchayat level.
- It also includes an accessible and simple dispute settlement mechanism at the lowest level possible for quick disposal of disputes.
- Under the draft Model Act, in case of disputes between a producer and a buyer, they can: (i) reach a mutually acceptable solution through negotiation or conciliation, (ii) refer the dispute to a dispute settlement officer designated by the state government, and (iii) appeal to the Contract Farming (Promotion and Facilitation) Authority (to be established in each state) in case they are not satisfied by the decision of the dispute settlement officer.
- Under the draft Model Act, limits of stockholding of agricultural produce will not be applicable on produce purchased under contract farming.
- While contract farming seeks to provide alternative marketing channels and better price realisation to farmers, several other marketing reforms have been suggested by experts in this regard. These include: (i) allowing direct sale of produce by farmers, (ii) removing fruits and vegetables out of the ambit of APMCs, and (iii) setting-up of farmer-consumer markets, (iv) electronic trading, and (v) joining electronic National Agricultural Market for the sale of produce.

Centre's Nod to Ordinance To Set Up India's 1st Sports University In Manipur

- The Union Cabinet has approved an ordinance to set up the country's first national sports university in Manipur.
- A bill to set up the university in Imphal is already pending in parliament. The ordinance will be on the lines of the bill introduced in Lok Sabha in August, 2017.

About National sports university bill:

- **Establishment of the University:** The Bill establishes a National Sports University located in Manipur. It will promote sports education in the areas of: (i) sports sciences, (ii) sports technology, (iii) sports management, and (iv) sports coaching. It will function as a national training centre for select sports disciplines. It may also establish campuses and study centres in other parts of the country. The University will be empowered to grant degrees, diplomas and certificates.
- **Objectives:** The key objectives of the University are: (i) research, development and dissemination of knowledge in physical education and sports sciences, (ii) strengthening physical education and sports training programmes, (iii) generating knowledge capabilities, skills and competence at various levels, and (iv) training talented athletes to help them to evolve into international level athletes.
- **Authorities of the University:** The Bill provides for several authorities under the University. These include: (i) the Court, which will review the broad policies and programmes of the University, (ii) the Executive Council, which will be the principal executive body, (iii) the Academic and Activity Council, which will conduct the general supervision over academic policies, (iv) the Board of Sports Studies, which will approve subjects for research for various degrees and other requirements of research degrees, (v) the Finance Committee, which will examine the accounts and proposals for expenditure, and (vi) any other authorities which may be declared by the statutes.
- **The Executive Council:** The Executive Council will conduct all of the University's administrative affairs. The members of the Executive Council will include: (i) the Vice-Chancellor (appointed by the central government), (ii) Additional Secretary and Financial Advisor, Ministry of Youth Affairs and Sports, and (iii) four persons from amongst eminent sports persons, among others. Functions of the Council include: (i) creating academic and

non-academic posts, (ii) managing and regulating the University's finances and property, and (iii) partnering with industry and non-government agencies for advancement of knowledge.

- **Role the central government:** The central government will review and inspect the functioning of the University. The Executive Council may take action based on the inspection report. If it fails to take action to the satisfaction of the central government, it will have to comply with the directions issued by the central government. Further, the central government may annul any proceeding of the University which is not in line with the Act.
- **Funding:** The University will be required to maintain a fund which will be credited with the funds that it receives from the central government, state government, and fees and money received from any other sources (grants and gifts). All funds of the University will be invested as decided by the Board on the recommendation of the Finance Committee.
- **Disputes and appeal procedure:** Any student or candidate whose name has been removed from the rolls of the University and who has been debarred from appearing for the examinations may appeal to the Executive Council. The Council may confirm, modify or reverse such a decision. Any dispute arising out of any disciplinary action taken by the University against a student may be referred (at the request of the student) to a Tribunal of Arbitration. Further, any dispute between the University and any employee will also be referred to a Tribunal of Arbitration.

Inter-State Council (ISC)

- Inter-State Council Standing Committee under the chairmanship of Union Home Minister Shri Rajnath Singh completes its deliberations on Punchhi Commission report.
- The recommendations in Volume VI of the Punchhi Commission report are related to Environment, Natural Resources and Infrastructure.
- The recommendations in Volume VII are related to Socio-economic Development, Public Policy and Good Governance.

Important recommendations of Punchhi Commission:

- The commission has proposed "localizing emergency provisions" under Articles 355 and 356, contending that localized areas-either a district or parts of a district - be brought under Governor's rule instead of the whole state. Such an emergency provision should however not be of duration of more than three months.
- The commission however supports their right to give sanction for the prosecution of ministers against the advice of the state government.
- To make an amendment in the Communal Violence Bill to allow deployment of Central forces without the state's consent for a short period. It has proposed that state consent should not become a hurdle in deployment of central forces in a communal conflagration. However, such deployment should only be for a week and post-facto consent should be taken from the state.
- Among the significant suggestions made by the Commission is, laying down of clear guidelines for the appointment of chief ministers. Upholding the view that a pre-poll alliance should be treated as one political party, it lays down the order of precedence that ought to be followed by the governor in case of a hung house: Call the group with the largest pre-poll alliance commanding the largest number; The single largest party with support of others; The post-electoral coalition with all parties joining the government; and last The post electoral alliance with some parties joining the government and remaining including Independents supporting from outside.
- The panel also feels that governors should have the right to sanction prosecution of a minister against the advice of the council of ministers. However, it wants the convention of making them chancellors of universities done away with.
- As for qualifications for a governor, the Punchhi commission suggests that the nominee not have participated in active politics at even local level for at least a couple of years before his appointment. It also agrees with

the Sarkaria recommendation that a governor be an eminent person and not belongs to the state where he is to be posted.

- The commission also criticizes arbitrary dismissal of governors, saying, "the practice of treating governors as political football must stop".
- There should be critical changes in the role of the governor - including fixed five-year tenure as well as their removal only through impeachment by the state Assembly. It has also recommended that the state chief minister have a say in the appointment of governor.
- Underlining that removal of a governor be for a reason related to his discharge of functions, it has proposed provisions for impeachment by the state legislature along the same lines as that of President by Parliament. This, significantly, goes against the doctrine of pleasure upheld by the recent Supreme Court judgment.

What is ISC?

- The Inter-State Council is a constitutional body to facilitate coordination between states and the centre
- It is a recommendatory body to investigate and discuss subjects, in which some or all of the states or the Central government have a common interest.
- It is set up on the basis of provisions in Article 263 of the Constitution of India by a Presidential Order, 1990 based on the recommendation of Sarkaria Commission.
- The Inter-state council is not a permanent constitutional body for coordination between the states and Central government. Rather, President can establish it at any time if it appears to him that the public interests would be served by the establishment of such a council

‘Gaj Yatra’

- On the occasion of World Elephant Day, leading wildlife conservation NGO Wildlife Trust of India (WTI) has announced the launch of the Gaj Yatra, a campaign that aims to raise awareness about the shrinking space for India’s wild elephants and the importance of securing elephant corridors.

About Gaj Yatra:

- The Gaj Yatra, which is partnered by the International Fund for Animal Welfare (IFAW), is the biggest event ever planned around India’s wild elephants. It will take the form of a roadshow that will move through 12 elephant range states over the next 15 months, with elephant-sized artworks created by local artists and craftsmen as the centrepiece.
- Gaj Mahotsavs will be organised at different venues along the way, with concerts, parades, street plays and activities for children in particular.
- The Gaj Yatra’s objective is two-fold: to raise awareness about the plight of India’s National Heritage Animal, and to build a groundswell of popular support for the securing of elephant corridors.

Analysis:

- India has about 30,000 wild Asian elephants (*Elephas maximus*); over 50% of the species’ estimated global population. Yet these natural nomads face an increasingly uncertain future in the country. The growing resource needs of India’s human population have led to the destruction and fragmentation of wild habitats across the country, depleting the area available for elephants to roam and causing the loss of their traditional migratory paths.
- Elephant corridors are vital natural habitat linkages that enable elephants and other wildlife to move through the degraded habitats lying between larger protected forests freely, without being disturbed by humans. With Asian elephants now occupying a meagre 3.5 percent of their historical range, securing these corridors has become a conservation imperative. Wildlife Trust of India has been working with the Government of India’s Project Elephant, state forest departments, and national and global NGOs to secure and protect elephant corridors for over a decade through its Right of Passage project, and it is hoped that the Gaj Yatra will lend a renewed urgency to these efforts.

Inner Line Permit

- The Manipur government is all set to introduce the Inner Line Permit bill in the forthcoming monsoon session of the assembly.
- The Manipur Assembly had passed three bills in this connection in 2015 but the President did not give assent to one bill while the two others were rejected even as most tribals in the state had objected to the bills terming them as “anti-tribal”.

About Inner Line permit:

- The inner line permit (ILP) system, required by Indian citizens to enter Arunachal Pradesh, Nagaland and Mizoram is issued under the Bengal Eastern Frontier Regulation, 1873, by the state governments.
- Inner line Permit Inner Line Permit is an official travel document issued by the Government of India to allow inward travel of an Indian citizen into a protected/restricted area for a limited period.
- It is obligatory for Indian citizens from outside those states to obtain permit for entering into the protected state. The document is an effort by the Government to regulate movement to certain areas located near the international border of India.
- There are two kinds of official permits prescribed by Government for entering into any area within Arunachal Pradesh. They are, Inner Line Permit (ILP) and Protected Area Permit (PAP).
- Any Domestic tourist coming to the mentioned state has to obtain an Inner Line Permit. The Permit is granted as a routine for the tourists and so it should not deter any tourist from coming to state.
- All the foreigners are required have the Protection Area Permit or PAP for entering into the state. They can obtain the Protected Area Permit from, All Indian Missions abroad, and Home ministry.

Analysis:

- The influx of foreign tourists has increased exponentially in Manipur, thus creating a demographic imbalance in the region.
- If this was not enough, illegal immigration from Bangladesh, Nepal and Myanmar has also contributed to the crisis.
- This has created fear among the locals over employment and availability of resources.
- At a time where there already exists stiff competition between the locals and outsiders over jobs, the outsiders mostly settle for low paid work. Hence, locals feel ILP fails to safeguard the interests of the indigenous people.

INTERNATIONAL AFFAIRS

CLMV conclave

- 5th India – CLMV (Cambodia, Lao PDR, Myanmar and Vietnam) Business Conclave was recently held at Phnom Penh, Cambodia.
- During the conference, government and business community of CLMV countries were invited to actively partner in India’s initiative to strengthen manufacturing capacities.

About CLMV:

- CLMV stands for Cambodia, Laos, Myanmar and Vietnam

- These countries have a unique position in the regional value chains in Southeast Asia region
- These countries offer a gateway for market access to China, European Union and other markets due to various trade agreements

Analysis:

- Cambodia, Lao PDR, Myanmar and Vietnam collectively, is the third largest economy in ASEAN, followed by Indonesia and Thailand.
- Due to close proximity, India is looking to boost trade and investment with the CLMV region as part of the 'Act East' policy announced by India in 2013.
- The CLMV conclave is an annual feature which provides an opportunity for Indian business leaders to interact with government and business stakeholders representing the four countries.
- The conclave facilitates to create and provide a platform for the decision makers from CLMV countries to interact with a range of Indian business companies involved in trading, manufacturing, processing, engineering, consultancy, construction etc.
- India's trade with the CLMV countries is over 11,000 million USD and there is immense potential.
- The tri-lateral highway, connectivity in the North East, port connectivity improvement and the Act East policy are moves in that direction. The External Affairs study proves that there's a huge potential of about 100 billion USD dollars of additional export.
- The trade investment between India and the ASEAN countries is crucial since the CLMV countries cover 32% of the ASEAN region and has a huge market for Indian products and with a 165 million strong population.
- This will attract considerable amount of FDI from India. It has an open investment regime and does not discriminate between foreign and local investors. It is investing heavily into its transport infrastructure.

Europe's New Data Protection Law

- General Data Protection Regulation (GDPR) came into effect across the European Union changing the way companies around the world collect and handle personal data.

Main highlights:

- The new law affects any organization that holds or uses data on people inside the European Union, regardless of where it is based.
- An Indian call centre handling customer services for companies that sell products in Europe or a US website tracking browsing histories of Europeans will be impacted.
- Businesses can still serve their customers, send them emails, and collect and store their data. They just need to make sure they have a "lawful basis" for doing so and respect the wishes of people who want to have their data deleted.
- If they fail to prove they have been handling data correctly, don't report security breaches within 72 hours, or hold data for longer than is necessary, they face penalties.
- It was approved by EU Parliament in April 2016 and came to effect in May 25, 2018
- The GDPR provides for a heavy penalty of €20 million or 4% of company's global revenue for non-compliance
- Any organisation providing goods and services to EU comes under the ambit of GDPR. In India, a major focus is on IT/ITES companies which account for 7% of GDP

Analysis:

- These regulations pose a serious challenge for Indian IT companies. GDPR aims to protect EU citizens from data breaches
- In India, many IT organizations are not prepared for GDPR compliance. Only 30-35% has started work towards achieving GDPR compliance
- Large Indian IT companies are well prepared due to economies of scale. However, the impact of GDPR on SMEs and start-ups is a concern as the cost of compliance for them is high.
- The introduction of GDPR will positively impact on the way data is handled by companies and will boost consumer trust.

- In India, there has been a rise in demand and application for data protection jobs since 2017 and is expected to continue so after the introduction of GDPR.
- Recently, Mauritius has also introduced strong data protection law in the lines of GDPR. Further, India has also been working on data protection law- some of the attributes of the draft policy are supposed to be similar to GDPR.

RIMPAC naval exercises

- The United States has decided to disinvite China from participating in the Rim of the Pacific naval exercise, held near Hawaii.
- The decision to withdraw the invitation extended to China was made in response to Chinese activity in the South China Sea.

Participating members:

- Australia, Brunei, Canada, Chile, Colombia, Denmark, France, Germany, India, Indonesia, Italy, Japan, Malaysia, Mexico, Netherlands, New Zealand, Norway, China, Peru, Korea, Philippines, Singapore, Thailand, Tonga, the United Kingdom and the United States.

RIMPAC and India

- Exercise RIMPAC is held biennially in the Western Pacific Ocean and Indian Navy's association commenced with participation as an 'Observer' in 2006, 2010 and 2012.
- In 2016, Indian naval ship Satpura, participated in the largest multilateral water exercise in the world
- Indian naval participation provides a platform for multilateral operational interactions aimed at increased inter-operability and development of common understanding of procedures for maritime security operations
- The professional exchanges in harbour and diverse range of activities at sea, including complex surface, sub-surface and air operations would enable sharing of best practices and honing of operational skills.
- Participation in Exercise RIMPAC 2016 is another significant milestone in Indian Navy's efforts towards, strengthening mutual confidence as well as sharing of best practices with other navies of the region, the statement said.
- Indian Navy's participation in the exercise will support maritime security in the Indo-Pacific region, and contribute to peace and stability of the global commons.
- India's presence at RIMPAC is also a reflection of its growing defense relationship with the U.S. and Southeast Asia. India imports more American defense equipment than any other country, and its dependence on U.S. manufactured weapons and sensors has increased considerably in recent years. Equally, India's aid and assistance to Southeast Asian countries has grown steadily. While India's presence reaffirms its relationship with the U.S. and ASEAN, it also allows for the development of operational congruence with China. New Delhi has been wary of limiting its eastern outreach to nations perceived to be part of a U.S.-alliance, and is seeking an active maritime engagement with Beijing. It realizes, however, that the nautical exchanges must be confined to the Pacific, and not the Indian Ocean where a growing Chinese footprint poses a strong strategic threat.
- India's presence at the RIMPAC also subtly reiterates the importance of the Indo-Pacific as an arc of economic and security interest. It validates the notion that the Pacific is strategically linked to the Indian Ocean, and that maritime security in one theater is intimately related to the other.

About Rim of the Pacific (RIMPAC) Exercise

- RIMPAC, the Rim of the Pacific Exercise, is the world's largest international maritime warfare exercise. RIMPAC is held biennially during June and July of even-numbered years from Honolulu, Hawaii.
- It is hosted and administered by the United States Navy's Pacific Fleet, headquartered at Pearl Harbor, in conjunction with the Marine Corps, the Coast Guard, and Hawaii National Guard forces under the control of the Governor of Hawaii. The US invites military forces from the Pacific Rim and beyond to participate.

- With RIMPAC the United States Pacific Command seeks to enhance interoperability between Pacific Rim armed forces, ostensibly as a means of promoting stability in the region to the benefit of all participating nations.
- Described by the US Navy as a unique training opportunity that helps participants foster and sustain the cooperative relationships that are critical to ensuring the safety of sea lanes and security on the world's oceans.

SCIENCE AND TECHNOLOGY

IISER develops device to detect and remove arsenic from water

- The Indian Institute of Science Education and Research (IISER) in collaboration with a private company has developed a new device which can be used to detect and remove arsenic content from water and make it safe and usable by households.
- The device - 'Arsenic Sensor and Removal Media' - is an effective system with low production cost, IISER Director Sourav Pal told a press meet here on Wednesday.

Analysis:

- Arsenic in ground water is a geogenic contaminant i.e. caused by natural geologic processes. Arsenic-containing groundwater in Ganga River basin is hosted by the sediments deposited by the rivers during the late Quaternary or Holocene age (<12 thousand years).
- Incidence of high arsenic in groundwater reported from various parts of the country, particularly in the Ganga-plains is a serious threat to the health of human being.
- Over the last three decades numerous measures have been initiated which includes alternate arrangement for supply of arsenic free water to the affected populace and providing arsenic removal plants.
- Arsenic occurrences in ground water in these areas is highly sporadic in nature and all the sources in these areas are not necessarily contaminated.
- High value of arsenic in groundwater is geogenic in nature, but as a large population is dependent on groundwater resources for drinking purposes in Ganga basin and is under the risk of health hazards, it becomes emergent to go for mitigation measures as well as alternate sources of water so that locals can be protected from negative impact of arsenic in groundwater.
- Technological options to combat arsenic menace, in groundwater, to ensure supply of arsenic free water, in the affected areas can be in-situ remediation of arsenic from aquifer system, ex-situ remediation of arsenic from tapped groundwater by arsenic removal technologies, use of surface water source as an alternative to the contaminated groundwater source, tapping alternate safe aquifers for supply of arsenic free groundwater or combination of above techniques.
- Out of the above options, arsenic removal technologies and ex-situ treatment technique are being practiced widely to provide potable water to the people in the arsenic affected areas after treatment of contaminated groundwater. Their large scale use in West Bengal, based on different operating principles, with various degrees of success and failure, has been reported.

INSV Tarini

- INSV Tarini has completed a historic global Circumnavigation. This is the first-ever Indian circumnavigation of the globe by an all-women crew. It's a first for India where an all-women crew set sails for circumnavigation of the globe.

About INSV Tarini and expedition:

- The indigenously-built INSV Tarini is a 56-foot sailing vessel, which was inducted in the Indian Navy in February 2017, and has showcased the 'Make in India' initiative on the International forum.
- The expedition titled 'Navika Sagar Parikrama' is in consonance with the National policy to empower women to attain their full potential. It has showcased 'Nari Shakti' on the world platform and helped change societal attitudes and mindset towards women in India by raising visibility of their participation in challenging environs.
- During her 254 day long voyage, the vessel has covered over 22,000 Nautical miles, visiting five countries – Australia, New Zealand, Falkland Islands (UK), South Africa and Mauritius.
- At each of these countries the crew received a rousing welcome both from the Indian diaspora as also from the local community.
- During the course of her voyage, the vessel has met all criteria of circumnavigation, viz. crossing the Equator twice, crossing all Longitudes, as also the three great capes (Cape Leeuwin, Cape Horn and Cape of Good Hope).
- The expedition was covered in six legs, with halts at 5 ports: Fremantle (Australia), Lyttleton (New Zealand), Port Stanley (Falklands), Cape Town (South Africa) and Port Louis (Mauritius).
- The crew and the vessel encountered rough seas on numerous occasions during the voyage. The extremely cold climate coupled with stormy weather conditions especially in the Southern Ocean made the task of circumnavigating the globe highly daunting and challenging. The vessel also witnessed winds in excess of 60 knots and waves up to 7 meters high, whilst crossing the Pacific Ocean.

WHO list of essential diagnostic tests

- WHO has published its first Essential Diagnostics List, a catalogue of the tests needed to diagnose the most common conditions as well as a number of global priority diseases.
- The aim is to provide a tool that can be useful to all countries, to test and treat better, but also to use health funds more efficiently by concentrating on the truly essential tests.

Main highlights:

- The list concentrates on in vitro tests – i.e. tests of human specimens like blood and urine. It contains 113 products.
- 58 tests are listed for detection and diagnosis of a wide range of common conditions, providing an essential package that can form the basis for screening and management of patients.
- 55 tests are designed for the detection, diagnosis and monitoring of "priority" diseases such as HIV, tuberculosis, malaria, hepatitis B and C, human papillomavirus and syphilis.
- Some of the tests are particularly suitable for primary health care facilities, where laboratory services are often poorly resourced and sometimes non-existent. These tests do not require electricity or trained personnel. Other tests are more sophisticated and therefore intended for larger medical facilities.
- For each category of test, the Essential Diagnostics List specifies the type of test and intended use, format, and if appropriate for primary health care or for health facilities with laboratories. The list also provides links to WHO Guidelines or publications and, when available, to prequalified products.

Analysis:

- Many people are unable to get tested for diseases because of lack of access to diagnostic services.

- Several are incorrectly diagnosed and, hence, do not receive the treatment they need. For instance, an estimated 46 per cent of adults worldwide with Type 2 diabetes are undiagnosed, risking serious health complications.

Late diagnosis of infectious diseases such as HIV and TB increases the risk of spreading and makes the conditions more difficult to treat. To address the gap, the WHO published this list

Nipah virus outbreak in Kerala

- As the death toll in the virus-induced fever in north Kerala rises to nine, the National Virology Institute in Pune has confirmed that the deceased were infected with Nipah virus (NiV).
- This is the first time the virus, which has high fatality rate and spreads mainly through bats, pigs and other animals, has been detected in the state.

About the virus:

- Nipah virus (NiV) infection is a newly-emerging zoonosis (a disease which can be transmitted to humans from animals) that causes severe disease in both animals and humans. The natural host of the virus are fruit bats of the Pteropodidae Family, Pteropus genus.
- NiV was first identified during an outbreak of disease that took place in Kampung Sungai Nipah, Malaysia in 1998.
- On this occasion, pigs were the intermediate hosts. However, in subsequent NiV outbreaks, there were no intermediate hosts.
- In Bangladesh in 2004, humans became infected with NiV as a result of consuming date palm sap that had been contaminated by infected fruit bats. Human-to-human transmission has also been documented, including in a hospital setting in India.
- The viruses jump the species barrier and infect a secondary animal host, transmission takes place through direct contact with infected bats, pigs, or from other NiV-infected people and people have been also cautioned that they should not consume fruits that have fallen on to the ground.

Symptoms

- NiV infection in humans has a range of clinical presentations, from asymptomatic infection to acute respiratory syndrome and fatal encephalitis.
- NiV is also capable of causing disease in pigs and other domestic animals.
- Nipah virus primarily causes an encephalitic syndrome with a high mortality rate.
- The characteristic MRI abnormalities are multiple, small (less than 5 mm), asymmetric focal lesions in the subcortical and deep white matter without surrounding edema.
- There is no vaccine for either humans or animals. The primary treatment for human cases is intensive supportive care

What the rupee's fall means

- The rupee has fallen 5.2% in the current financial year, from close to 65 on March 28 to an 18-month low of 68.42 against the dollar.
- As worries for importers, travellers and even students rise steadily, analysts are watching the currency's steady march towards the 70-mark as international crude oil prices continue to rally and foreign funds flow out.

Analysis:

- There are three major reasons behind rupee's fall. The rise in crude prices, portfolio outflows from India due to the selling of stocks, especially by foreign portfolio investors (FPIs), and a growing anticipation of interest rates rising in the US.
- Brent crude prices have increased from \$70.30 to over \$80 per barrel since the beginning of the new financial year in April. This is mainly due to concerns over supply disruptions after the rise in US tensions with Iran,

which contributes 11-12% of OPEC production. As oil prices rise, India's trade deficit — excess of imports over exports — will worsen, which can in turn impact the current account deficit.

- Expecting US interest rates to go up, FPIs have taken out Rs 27,000 crore from India in April and May so far, which is over \$4 billion in less than two months. As the US Federal Reserve raises rates further — which is bound to happen — FPIs will prefer to invest in their home country as the arbitrage gain while investing in India and emerging markets will decline. A weakening rupee will also lower returns, which will in turn impact future inflows.
- Importers will be hit as the cost of getting goods or equipment into India will increase. When the rupee weakens, importers, especially oil companies and other import-intensive companies, have to shell out more rupees to buy an equivalent amount of dollars. In this sense, a weak rupee can act as a kind of import tax. For the oil sector, it is a double whammy, as the rise in crude prices and the decline in rupee value add to retail fuel prices. Margins of oil companies will come under pressure.
- On the other side, Exporters, especially software exporters, stand to benefit, as they get more rupees while converting dollar export earnings into Indian currency. This is expected to boost exports, which have been showing single-digit growth. In FY18, exports grew 9.78%, and given exports in April 2018 showed only 5.17% growth, it appears that the issues with GST implementation are yet to be overcome. The twin impact of FII outflows and worsening trade balance can hit the rupee further; to keep external metrics stable, therefore, exports of both services and merchandise need a further push.

Trachoma

- The World Health Organization (WHO) has validated Nepal for having eliminated trachoma as a public health problem – a milestone, as the country becomes the first in WHO's South-East Asia Region to defeat the world's leading infectious cause of blindness.
- Trachoma was the second leading cause of preventable blindness in Nepal in the 1980s. In 2002, the Government of Nepal stepped up efforts to eliminate the disease with the establishment of a national trachoma programme. From 2002 to 2005, following the implementation of sustained control activities, the prevalence of active (inflammatory) trachoma fell by 40%.

About Trachoma:

- Trachoma, one of the oldest infectious diseases known to mankind, dates back several thousand years and was first documented as early as the pharaonic era in Egypt.
- The disease is associated with poor socioeconomic conditions in general: with overcrowding, poor personal and environmental hygiene and, in particular, with very limited access to water and sanitation.
- Trachoma has been eliminated as a blinding disease from several previously hyperendemic countries and regions, both through significant improvements in the socioeconomic status of populations and through specific control efforts.
- Despite these successes, in many least developed countries of the world blinding trachoma continues to be an important public health problem.
- In some of the countries where trachoma was once hyperendemic, there remain residual pockets of blinding trachoma and complications, such as intumed eyelashes (trichiasis), which require eyelid surgery.
- Today, the disease is found mainly in poor rural areas, including parts of central and south America, most African countries and some countries in the Eastern Mediterranean. Trachoma is still endemic in several Asian countries, but there is a lack of updated information from some major populations, e.g. in India and China.
- The culprit is *Chlamydia trachomatis* - a microorganism resembling both bacteria and viruses, which spreads through contact with eye discharge from the infected person (on towels, handkerchiefs, fingers, etc.) and through transmission by eye-seeking flies. *Chlamydia trachomatis* provokes an inflammatory reaction in the eye with formation of follicles in the conjunctiva. After years of repeated infections, the inside of the eyelids

may be scarred so severely that the eyelid turns inwards with eyelashes rubbing on the eyeball. If untreated, this condition leads to blindness.

S-400 Triumph air defence missile systems

- India has concluded price negotiations with Russia for a nearly Rs 40,000 crore deal to procure S-400 Triumph air defence missile systems for the Indian Air Force.
- In 2016, India and Russia had signed an agreement on the 'Triumf' interceptor-based missile system which can destroy incoming hostile aircraft, missiles and even drones at ranges of up to 400 km.
- S-400 is known as Russia's most advanced long-range surface-to-air missile defence system.

About S-400 Triumph air defence missile systems:

- India's decision to augment its air defence with the Russian S-400 Triumph missile system can change the entire military dynamics of the subcontinent.
- The S-400 Triumph air defence missile, which has been in service with the Russian forces since 2007, is considered to be the best in the world and is much more advanced than any western system.
- Once deployed on the borders with China and Pakistan, the Indian forces will gain the capability of shooting down aerial targets emerging from the two countries before they pose any threat to our country.
- The missiles deployed with the S-400 Triumph are capable of travelling at a rate of 4.8 kilometres per second (17,000 km/h; Mach 14).
- The S-400 Triumph missile system, which can engage targets independently as well as after receiving data from others radars, is the fourth generation of long-range Russian Surface-to-Air-Missiles (SAMs).
- The highly mobile, ground-based S-400 Triumph can detect, track and shoot down multiple targets including cruise missiles, ballistic missiles, aircraft, drones, unmanned aerial vehicles (UAVs).
- It can target ballistic missiles in their terminal (descent or reentry) phase. The entire system consists of a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers, command and control centre.
- The system can fire the following missiles - 48N6DM/48N6E3 (range 250km), 40N6 (range 400km, maximum altitude 185 km), 9M96E (range 40 km, maximum altitude 20 km) and 9M96E2 (range 120km, maximum altitude 30 km).
- At present, the S-400 Triumph system employs missiles which use a 143-kilogramme high-explosive fragmentation to kill the incoming aerial threat. But another missile 77N6 is under development which will have the hit-to-kill capability like the US Patriot air defence system. While the current system can destroy missiles as well as aircraft and drones, the 77N6 will be specifically deployed to target the ballistic missile threat.
- The operational range of the S-400 Triumph is up to 400 kilometres, but it can detect targets which are 600 km away. The system is capable of detecting and tracking 300 targets and engaging 36 aircraft/UAVs/drones and 72 missiles simultaneously. It can take down aircraft/UAVs/drones at a range of 2-400 km. The system can shoot an incoming missile at a range of 5-60 km and at an altitude of 2-27 km.

PRAAPTI app

- The Ministry of Power has launched a web portal and an app called PRAAPTI (Payment Ratification and Analysis in Power procurement for bringing Transparency in Invoicing of generators) in an effort to bring in greater transparency in power purchase transactions between generators and distribution companies (DISCOMs).
- The app is currently available for download on Android devices only.

About App and Portal:

- The main purpose of this initiative is to herald a new era of transparency in financial transaction in the power sector.

Current Affairs

- Both the web portal and app will reflect the invoicing and payment data for many long-term power purchase agreements (PPAs) from the generators.
- It will also benefit all the stakeholders by giving them month-wise data on the outstanding amounts of DISCOMs against their PPAs.
- Apart from this, the app will also help the users with information related to the payments made by the DISCOMs to the power generation company. It will also indicate the time of the payment.
- Moreover, the portal will allow consumers to assess the financial performance of their DISCOMs and note if the generation companies are not being paid properly.
- PRAAPTI will also help DISCOMs and generation companies in finding a solution for their outstanding payments. It will also allow relative assessment of the ease of making payments to various DISCOMs and generation companies.
- PRAAPTI will also enable the consumers to evaluate financial performance of their Discoms in terms of payments being made to the generation companies.
- The Portal would also help DISCOMs and GENCOs to reconcile their outstanding payments.
- The portal would facilitate relative assessment of various State DISCOMs on “Ease of making payments” to various Generation Companies, and will also help make transactions in the power Sector more transparent.

QUICK FACTS

- In IMD's competitiveness rankings, Rank of India is: **44th**
- 5th India CLMV Business Conclave held at : **Phnom Penh, Cambodia**
- First country in south-east Asia to eliminate trachoma: **Nepal**
- First Latin country to join NATO: **Columbia**
- 108th session of UNWTO Executive council to be held in : **San Sebastian**
- First State in Northeast to Have Solar Toilet: **Manipur**
- 24th CM of Karnataka : **Kumaraswamy**
- ‘Straight Talk’ book is authored by: **Shri Abhishek Manu Singhvi.**