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## 1. SOCIAL ISSUES

### 1.1. Breastfeeding Week To Promote Breastfeeding

#### In News

- Every year, breastfeeding week is observed in the first week of August. The objective is to focus attention on the important aspect of promotion and support of breastfeeding.
- The theme of this year's breastfeeding week is 'Sustaining Breastfeeding'.

#### Key Highlights

- To intensify the efforts further for promotion of breastfeeding, the Health Ministry has initiated a nationwide programme called "**MAA-Mother's Absolute Affection**" to bring undiluted focus on promotion of breastfeeding and provision of counseling services towards supporting breastfeeding, along with ongoing efforts of routine health systems.
- The chief components of the MAA Programme are Community awareness generation, Strengthening inter personal communication through ASHA, Skilled support for breastfeeding at Delivery points in Public health facilities, and Monitoring and Award/recognition.
- This programme will be monitored by **UNICEF** and other partners.
- In addition, "National Guidelines on Lactation Management Centres in Public Health Facilities" have been recently released to facilitate establishment of lactation management centres for ensuring that the sick and pre-term babies are fed with safe human breast milk.

#### Background

- The trend of breastfeeding has shown an upward trend. As per recent data, initial breastfeeding has been nearly doubled in last decade. i.e from 23.4 % in NFHS-3 (2005-06) to 41.6 % in NFHS-4 ( 2015-16).
- However, there is further scope of improving initial breastfeeding rates considering the high proportion of institutional deliveries in the country.

#### Importance Of Breastfeeding

- Breastfeeding is a child's first inoculation against death, disease and poverty and according to the latest scientific evidence; breastfeeding is our most enduring investment in physical, cognitive and social capacity development.
- Breastfeeding creates a special bond between mother and baby and the interaction between the mother and child during breastfeeding has positive impact for life, in terms of stimulation, behaviour, speech, sense of well-being, security and how the child relates to other people.
- It improves immune system of the child as well as IQ.
- According to a UN report, breastfeeding not only helps prevent diarrhoea and pneumonia, two major causes of death in infants, it also helps reduce mothers' risk of ovarian and breast cancer, two leading causes of death among women.
- Around 20% newborn deaths and 13% under-five deaths can be prevented by early initiation of breastfeeding.

#### The Global Breastfeeding Scorecard 2017

- It is a new report published by the United Nations Children's Fund (UNICEF) and World Health Organisation (WHO) in collaboration with the Global Breastfeeding Collective.

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- According to the report, nearly one lakh children die every year in India due to diseases that could have been prevented through breastfeeding.
- It also notes that mortality and other losses attributed to inadequate breastfeeding can cost the India's economy \$14 billion.

### 1.2. Mentor India Campaign

#### In News

- NITI Aayog will launch the Mentor India Campaign to promote innovation and entrepreneurship.
- It is a strategic nation building initiative to engage leaders who can guide and mentor students at more than 900 Atal Tinkering Labs, established across the country as a part of the Atal Innovation Mission. The aim is to maximize the impact of Atal Tinkering Labs, possibly the biggest disruption in formal education globally.
- The idea is to engage leaders who will nurture and guide students in Atal Tinkering Labs. Under the initiative, leaders are expected to dedicate 1 to 2 hours every week in such labs, enabling students from class 6 to 12 to experience, learn and practice future skills such as design and computational thinking.
- Mentors are expected to discuss with students the various problems our Indian society is facing across multiple themes, and motivate students to develop solutions to these community problems.

#### Atal Tinkering Lab

- Atal Tinkering Labs are established across the country as a part of Atal Innovation Mission. The goal is to have 2000 such labs by the end of 2017.
- Atal Tinkering Labs are dedicated works spaces where students from Class 6th to Class 12th learn innovation skills and develop ideas that will go on to transform India.
- The labs are powered to acquaint students with state-of-the-art equipment such as 3D printers, robotics & electronics development tools, Internet of things & sensors etc.
- These labs are non-prescriptive by nature, and mentors are expected to be enablers rather than instructors.
- The labs are designed to light the spark of creativity, going beyond regular curriculum and text book learning. The labs will let students explore skills of future such as design and computational thinking, adaptive learning and artificial intelligence.

#### Atal Innovation Mission (AIM)

- AIM including Self-Employment and Talent Utilization (SETU) is Government of India endeavour to promote a culture of innovation and entrepreneurship.
- Its objective is to serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Start-up businesses and other self-employment activities, particularly in technology driven areas.
- The Atal Innovation Mission shall have two core functions:
  - Entrepreneurship promotion through Self-Employment and Talent Utilization, wherein innovators would be supported and mentored to become successful entrepreneurs.
  - Innovation promotion: to provide a platform where innovative ideas are generated

## 1.3. Global Retirement Index 2017

### In News

- The Global Retirement Index 2017, published by French asset management company Natixis Global, has placed India at the last 43rd spot. It has indexed only 43 countries.
- Four parameters are used to prepare the index. These are: means to live comfortably after retirement, availability of products and services to keep investments safe and enhance their value, availability of health services and living conditions.
- The objective behind this annual retirement index is to provide a global benchmark for retirees and future retirees so that they can evaluate and compare the suitability of various nations, and plan their retirement according to their expectations and needs.
- Only the member countries of BRIC (Britain, Russia, India and China), International Monetary Fund (IMF) and Organisation for Economic Cooperation and Development (OECD) were considered for this index.

### Key Highlights

- The top three positions are acquired by Norway, Switzerland and Iceland.
- India ranks 43 in the index and has the same score as last year.
- India's rank in all the sub-indices is also in the bottom five. The nation scored the 41st rank in Material Well Being, 43rd in Health, 39th in Finance and 43rd when it comes to Quality of Life.
- India is first in old-age dependency, second when it comes to tax pressure and sixth in terms of interest rates.
- The indicators of environmental factors have increased as carbon dioxide emissions are also improving. Despite that the country has scored poorly in air quality, water, sanitation and happiness while it is the second worst as far as biodiversity and habitat are concerned.

### Post-retirement Life in India

Post retirement life in India has become quite tough as retirees increasingly face a number of challenges. These are:

- Higher medical and other expenses, amid weakening joint family system.
- Rising consumerism
- Also, the millennial in India are facing challenges in saving for retirement as India is grappling with globalization, inflationary pressures, economic volatility and changing lifestyles.
- There are no effective modeling techniques quantifying the impact of inflation, living expenses and return on assets on the Net Replacement Rate (NRR), which is an effective measure for adequacy of post-retirement income. [*NRR is the percentage of an employee's post-tax pre-retirement income that is paid through post-tax post-retirement annuities (including employer sponsored programmes)*].

### **Steps Taken By The Government**

- More deduction on National Pension Scheme (NPS)** - To promote long-term retirement savings, the government introduced an additional Rs 50,000 deduction for investments made in the National Pension System.

- **NPS withdrawal reforms-** The government has proposed making 40% of NPS withdrawals at maturity tax-free. It is mandatory to put at least 40% of the corpus in an annuity plan. The investor can now make the maturity corpus completely tax-free by putting 60% in annuity and withdrawing 40% of the corpus.
- **Increase in tax deduction limits-** The government hiked the exemption limit for investments by individuals under Sec 80C from Rs 1 lakh to Rs 1.5 lakh. The government also increased the investment limit under PPF to Rs 1.5 lakh. In Budget 2015, the FM revised health insurance premium deduction for senior citizens from Rs 20,000 to Rs 25,000.
- **Small savings schemes rates revision-** The government decided to revise interest rates on small savings schemes like PPF, EPF, NSC and other post office savings schemes on a quarterly basis. This did not go down well with conservative investors who invest in such schemes for fixed and predictable returns.
- **Pension plans-** Social security schemes such as Atal Pension Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana (life insurance) and Pradhan Mantri Suraksha BimaYojana (accident insurance) are great ways to secure the lives of senior citizens.
- **Pradhan Mantri Vaya Vandana Yojana (PMVVY)** – A pension scheme for senior citizens aged 60 or above, which will provide social security to senior citizens by offering decent return. This scheme can be beneficial for the senior citizens who want a no risk investment and which is non-fluctuating.

### **Conclusion**

- India should focus on comprehensive and periodic assessment of retirement adequacy that duly incorporates the impact of inflation, living expenses and return on assets, on post-retirement income.
- It is high time that employers seize the opportunity to embed employee financial well-being into their employee value proposition (EVP), especially educating and preparing employees for retirement.
- Else, a decade or two down the line, the country could be facing a distressing scenario of retirees having inadequate income over a retirement period potentially longer than their earning lifetime.

### **1.4. 'She Means Business' Programme In Odisha**

#### **In News**

- Odisha Government has launched 'She Means Business' programme of Facebook for women entrepreneurs.
- Under the scheme 25, 000 women entrepreneurs and self-help group (SHG) members will be given training on digital marketing skills within next one year.
- The programme has been launched by Facebook in 16 countries around the world including India. It is designed to reach out to aspiring and established women entrepreneurs to help them build and grow their business online.

#### **Key Highlights**

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- The women entrepreneurs will learn basic nuances of digital marketing like how to start your business on Facebook, how to make it real-time business, quick response to queries and timely delivery, quality assurance and so on.
- Facebook will also make a database of entrepreneurs in the state and will monitor their growth, turnover and profit after one year.
- Success stories among them will be highlighted to inspire others.
- Women entrepreneurs will get hands on training on digital marketing free of cost and they need not create their website to promote their business. The platform will also facilitate vertical integration.

### Background

- As many as 201 million monthly active people on Facebook in India on their mobile and 57% of people on Facebook in India are connected to at least one small business.
- Moreover, 1.99 billion interactions generated between businesses and people in India through Facebook.
- Number of new women-owned small and medium business pages on Facebook in India has increased approximately six-fold in the last four years (between 2012 and 2015).
- Hence, the government through Facebook's #SheMeansBusinessis hoping to inspire more women across the country to take the leap - and help close the gap on that untapped opportunity for millions more women and in turn ensure the economy remains strong and thrives.

### 1.5. 'Swasth Bachche, Swasth Bharat' programme

Ministry of Human Resource Development has launched 'SwasthBachche, Swasth Bharat' Programme. It is an initiative of Kendriya Vidyalaya Sangathan to prepare a physical Health and Fitness Profile Card for more than 12 lakhs of Kendriya Vidyalaya students.

### Key Highlights

- The programme will provide a comprehensive and inclusive report card for children covering all age groups and children of different abilities.
- It further aims to make students, teachers and parents aware about the importance of good health and fitness and encouraging 60 minutes of play each day.
- It also intends to imbibe values of Olympics and Paralympics amongst students.
- Bring back the childhood amongst children and make physical activity and recreational games an integral part of learning process; motivating potentially outstanding performers in various games and sports of excellence; using technology for data capture and analytics; and giving access to schools, parents and teachers are also the objectives of the programmes.

### 1.6. International Youth Day

#### In News

- Every year, August 12 is celebrated as International Youth Day across the world.
- The theme of International Youth Day 2017 is **Youth Building Peace**.

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- International youth day bring together all the stakeholders - such as governments, development actors and communities – to celebrate young people as a force for positive social change and for building peaceful, cohesive and resilient societies.
  - Its aim is to reaffirm the important role youth can play in deterring and resolving conflicts .It further highlights that youth are constituents in ensuring the success of peacekeeping efforts.
- The IYD was first established in 1999 by the United Nations Security Council and calls upon governments, international community, development actors and civil society organizations to recognize the important role young people can play in development and more importantly, in prevention and resolution of conflicts.
  - It marked the end of an era when young people were perceived as passive recipients of development welfare and brought them into the mainstream of development as active change agents.

### Youths in India

#### Defining Youth

- The term ‘Youth’ as defined by UNESCO - is best understood as a period of transition from the dependence of childhood to adulthood’s independence and awareness of our independence as members of a community. Youth is a more fluid category than a fixed age group.
- UN adopted the age group 15 to 24 for defining youth. The National Youth Policy, 2003 defined the youth as in the age group 13-35. However, National Youth Policy, 2014 modified it and defined ‘youth’ as persons in the age-group of 15-29 years.

#### Statistics

- Nearly 65% of India’s population falls under the rough age bracket of “under 35”, thus making it largely a young Nation.
- The annual report estimates that by the year 2020 India would have a median age of 28 years as compared to the 38 years in other South Asian nations and China.
- The Indian population under the age group of 15-29 comprises 27.5 of the total population, giving India a favourable demographic profile.

#### Importance Of Youths

- The youth today are in a position that they can receive the best of experience and the test of spirit, mixing it in proportion for meaningful purpose specially against the background with the plurality of practice of exclusion within the Indian democratic paradigm.
- Within array of social, political or civil movements, the youths have been at the centre of activities. From the LGBT movement to the equal rights for women and from environmental concerns to human rights - the youths have been at the centre of activities encompassing multifarious arena in public life and often act as a *workable pressure group*.
- The reason why youth should be at the core of economic/socially meaningful actions is its innate ability to adapt to the average ever-changing societal dynamics.
- The youth can act as early as a bridge between two generations.
- The young today are no longer so rigid in matters of inter-dining and inter-community marriage as they are challenging the rigid social system.

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- The biggest achievement of the youth and Technology co-option can be said to the risk taking spirit and the rise of start-ups. The sheer grit of youth, coupled with technology has made entrepreneurship universal accessible.

### Challenges Faced

- As per 2011 census, approximately 41% of Indian population is below the age of 20 years.
- The young today have sadly been subjected to the ill effects of fast growing urban sutes and are drawn to crimes even to maintaining a living.
- A major reason for this negative outlook is the disparity between availability and accessibility. Dominant hurdles in accessing these facilities are the financial constraints or the social structures.
- The academia has not been fully sensitive and welcoming to the on growing crisis of youth identity.
- In many parts of our country, youth face poverty, hunger, barriers to education, multiple and intersecting forms of discrimination, violence, and limited opportunities for growth and employment prospects leading to migration.
- They have often been excluded from decision-making processes.
- Many youth live in fragile and conflict-affected area of the country. For example- Youths of the Kashmir valley, Naxal region of Chhattisgarh and insurgent area of North Eastern India.

### Various Steps Taken By The Government

- National Youth Policy 2014 - The objectives and priority are:
  - Creating a productive workforce that can make a substantial contribution to the India's economic development. The priority areas for this are- education, entrepreneurship, employment and skill development.
  - Develop a strong healthy generation equal to take on future generations. To be operated through: Health - Healthy lifestyle; Sports.
  - Instill social values and promote community service to build rational ownership - operative tools are: Promotion of social values; Community engagements.
  - Facilitate participation and civic engagements at all centres of governance - to be operated through participation in politics and government-youth engagement.
  - Support youth at risk and create equitable opportunities for all disadvantaged and marginalised youth - the priority areas being inclusion and Social Justice.
- National Young Leaders Programme (NYLP) - The scheme aims at developing leadership qualities among the youth to enable them to realise their full potential and in the process, to contribute to the nation-building process. The Programme has different components: Neighbourhood Youth Parliament (NYP) and Youth for Development Programme (YFDP), National Young Leaders Awards (NYLA), National Youth Advisory Council (NYAC), National Youth Development Fund (NYDF).
- Nehru Yuva Kendra Sangathan (NYKS) - The Objective of the Programme is to develop the personality and leadership qualities of the youth and to engage them in nation-building activities.
- National Service Scheme (NSS) with an objective of developing the personality and character of the student youth through voluntary community service. 'Education through Service' is the purpose of the NSS.
- National Programme for Youth and Adolescent Development (NPYAD)

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- Youth Hostels
- Assistance to Scouting and Guiding Organisations
- Skill Development of Youth
  - Deen Dayal Upadhyaya Grameen Kaushalya Yojna (DDU-GKY), a placement linked Skill Development Scheme for rural youth under the National Rural Livelihood Mission (NRLM).
  - Aajeevika - National Rural Livelihoods Mission (NRLM) was launched by Ministry of Rural Development (MoRD) in June 2011. In November 2015, the program was renamed Deen Dayal Antyodaya Yojana (DDAY-NRLM).
  - Prime Minister's Employment Generation Programme (PMEGP)
  - Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
  - UDAAN

### **Conclusion**

The government through its various means has tried its best to bring out the potential and capacity of each individual youth, that not only helps in personality development but foster an emerging National Global dominant voice. The transformed youth shall be the torch bearers of much sensitized conscious and harmonious world.

### **1.7. Navika Sagar Parikrama**

- It is a project wherein a team of women officers of the Indian Navy would circumnavigate the globe on an Indian-built sail boat **INSV Tarini**. This is the first ever Indian circumnavigation of the globe by an all-women crew.
- The objective of this project is to promote Ocean Sailing activities in the Navy while depicting India's thrust for '**Nari Shakti**'.
- The expedition is also aimed at promoting women empowerment in the country. The expedition would inspire the youth of our nation to develop an understanding of the sea and instill a spirit of adventure and camaraderie.
- Additional aims of the Expedition are as follows:-
  - **Nari Shakti** - In consonance with the National policy to empower women to attain their full potential, the expedition aims to showcase 'Nari Shakti' on the world platform. This would also help to discard the societal attitudes and mindset towards women in India by raising visibility of participation by women in challenging environment.
  - **Environment and Climate Change** - Sailing encourages the use of environment friendly non-conventional renewable energy resources which affects the life of women. The expedition thereby aims at harnessing the energy to optimise the livelihood of the women onboard.
  - **Make in India** - The voyage also aims to show case the 'Make in India' initiative by sailing onboard the indigenously built INSV Tarini.
  - **Meteorological/ Ocean/ Wave Data Observation** - The crew would also collate and update Meteorological/ Ocean/ Wave data on a daily basis for subsequent analysis by research and development organisations.
  - **Marine Pollution** - The crew would monitor and report marine pollution on the high seas.

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- **Interaction with Local PIOs** - Since the expedition aims to promote Ocean Sailing and the spirit of adventure, the crew would interact extensively with the local PIOs at the various port halts.

### 1.8. Swachh Survekshan Gramin 2017

#### In News

- Results of the Swachh Survekshan Gramin 2017 were announced recently.
- Quality Council of India (QCI) surveyed 1.4 lakh rural households from 4,626 villages between May and June 2017.
- It was also announced that, to encourage States and districts to improve their sanitation coverage and Solid Liquid Waste Management (SLWM), the MDWS will also begin ranking all districts in India based on the data available on the Swachh Bharat Mission-Gramin Integrated Management Information System quarterly.
- The ranking will be done based on parameters of Performance, Sustainability and Transparency, and the first ranking will be announced on 2nd October, 2017 for the quarter July-September 2017.
- The formula for calculating these rankings will be:

$$\text{Total score (100)} = \text{Performance (50)} + \text{Sustainability (25)} + \text{Transparency (25)}$$

- The Swachh Bharat Mission (Gramin) also celebrated the week leading up to the 70<sup>th</sup> Independence Day as “**Khule Mein Shauch Se Azaadi”saptah**.
- During this, Swachhta Action Plans will be prepared by 24 States; and 24 villages from five states (Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal) will be chosen to become **Adarsh Ganga Gram**.

#### Key Highlights Of Report

- The report shows 62.45 per cent toilet coverage in India. It also reports that 91.29 per cent of the rural population having access to a toilet uses it.
- Over 4.54 crore household toilets have been constructed since the launch of the Swachh Bharat Mission Gramin.
- 160 districts, 220104 villages, and 5 States have been declared Open Defecation Free (ODF).
- Sikkim, Manipur and Nagaland were the top performers with 95% rural households covered by toilets. Himachal Pradesh and Uttarakhand have over 90% toilet coverage of the rural houses.
- Almost all rural households in Kerala and Haryana have access to toilet.
- In Bihar, only 30% of the rural households had access to toilets. In Uttar Pradesh and Jharkhand, only 37% of the rural households had access to a toilet. These are the worst performing states.

#### About Swachh Survekshan - Rural (Gramin)

- It is the third party survey conducted by the **Quality Council of India (QCI)** to take stock of the progress made by the Swachh Bharat Mission in rural areas.
- The Ministry of Drinking Water and Sanitation commissioned the first Swachh Survekshan for rural India during May 2016.
- Each district has been judged on four distinct parameters. Maximum weightage was placed on accessibility to safe toilets and water. The parameters to judge sanitation status include:

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- Households having access to safe toilets and using them (toilet usage, water accessibility, safe disposal of waste) (40%)
- Households having no litter around (30%)
- Public places with no litter in the surrounding (10%)
- Households having no stagnant waste water around (20%)

### Criticism Of This Survey

- This system of survey may turn into a reckless number chase if it focuses on toilet coverage instead of usage.
- Around 34.6 % villages in India have declared themselves open defecation free, but factors like availability of water, sensitization, long-term affordability (based on soil type and groundwater level), cleanliness and maintenance may deter toilet usage.
- The Swachh Survekshan Gramin ignores employed toilet technology, solid and liquid waste management, adaptability and acceptance by villagers in its method of study.
- For example, Rahimpur Uttari, a gram panchayat in Bihar's Khagaria district has 100 per cent coverage, but toilets have structural limitations and inappropriate design. Toilets are rendered unusable in monsoon due to flooding of the Ganga.
- Many critics question the finding of the report due to small sample size of the survey. Under the Swachh Survekshan Gramin 2017, QCI surveyed 1.4 lakh rural households from 4,626 villages, a **minuscule 0.72 per cent** of the total villages in India.

### **Quality Council Of India**

- Quality Council of India (QCI) was set up in 1997 jointly by the Government of India and the Indian Industry represented by the three premier industry associations i.e. Associated Chambers of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI).
- Its aim is to establish and operate national accreditation structure and promote quality through National Quality Campaign.
- The Department of Industrial Policy & Promotion, Ministry of Commerce & Industry is the nodal ministry for QCI.

### **1.9. e-Shakti Initiative of NABARD**

- e-Shakti or Digitisation of SHGs is an initiative of Micro Credit and Innovations Department of NABARD.
- The project aims at digitisation of all the SHG accounts to bring SHG members under the fold of financial inclusion thereby helping them access wider range of financial services together with increasing the bankers' comfort in credit appraisal and linkage by way of integrating SHG members with the national Financial Inclusion agenda.

### **Benefits Of This Scheme**

- Providing credit to SHGs based on real time performance;
- Capturing credit history of members;

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- Promoting transparency through real time SMS alerts in 10 languages to members;
- It is paving way for Credit Linkage as:
  - Bank branches can access the portal through Intranet or web link using their branch IFSC and password;
  - More than 31 MIS reports like Savings, meeting, Credit linkage, Repayment and Demand Collection Balance can be generated sitting in the Bank branch itself;
  - Easier processing of loan using EShakti system generated prefilled application forms with all the members and group information
- It will help in bringing SHGs on a common web based e-platform by making book keeping easy for low literacy clients.
- This will help in promoting national agenda of Financial Inclusion and pave the way of credibility of SHG data which can later be used by Credit Bureaus to reduce the issues related to multiple financing by banks.
- Digitisation eases transfer of social benefits and Direct Benefit Transfer (DBT) through Aadhaar-linked accounts and convergence with other government benefits.

### Challenges

- Sourcing of information from poor database and records.
- Large scale training and capacity building of SHGs, SHPIs and others involved in implementation of the programme.
- Capture of field level information from SHGs in a limited time and periodic upload of savings and credit details of SHGs
- Cooperation from banks
- GPRS connectivity
- There will be a huge fund requirement for scaling this pilot from the present level to 86 lakh SHGs across the country.

### 1.10. Measles-Rubella (MR) Campaign

#### In News

- Aiming to eliminate measles and curb instances of rubella by 2020, the Union Health Ministry has rolled out the second phase of its measles-rubella (MR) vaccination campaign in the country.
- This round of vaccination will cover 8 states/UTs (Andhra Pradesh, Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Himachal Pradesh, Kerala, Telangana and Uttarakhand).
- The first phase of measles-rubella vaccination campaign was successfully completed in five states, namely, Tamil Nadu, Karnataka, Goa, Lakshadweep and Puducherry.

#### Key Highlights

- The vaccination campaign has been launched for the age group of 9 months to less than 15 years.
- It aims to cover approximately 41 crore children and is going to be the largest ever vaccination campaign worldwide.

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- The single vaccine will replace the currently given two doses of measles vaccine at 9-12 months and 16-24 months of age.

### **Need For This Campaign**

- Measles is a contagious respiratory disease that causes a rash and fever, and may cause death among vulnerable people like malnourished children. Measles affects an estimated 2.5 million children every year, killing nearly 49 000 of them.
- Rubella, also a contagious disease, does not have any major symptoms in children or adults, but if contracted by women during early pregnancy can cause babies to be born with serious congenital defects in a condition called **Congenital Rubella Syndrome**. CRS causes birth defects such as irreversible deafness and blindness in nearly 40 000 children every year.

### **Immunization In India**

The full immunization rate in India is 58.5% for rural and 67.4% for urban (as per Coverage Evaluation Survey (CES) 2009).The immunization rate for children in India is 58.9% for SC category and 49.8% for ST category.

### **The Barriers To Achieve 100% Immunization Coverage**

There are a number of reasons why India lags behind its per capita GDP counterparts in vaccination rates (compare to Bangladesh, where 82% of children are fully vaccinated by age two). These are:

- Huge population with relatively high growth rate is a barrier in itself. Approximately 27 million children are born in India each year – the largest birth cohort in the world – but less than 44% receive a full schedule of vaccinations. To reach each and every one of such a huge cohort every year is obviously a daunting task.
- Geographical diversity (snow bound/ hilly areas, deserts, tropical forest areas, remote island territories),
- Cultural diversity (with various religions, languages, traditions, beliefs and customs)
- Political instability ("coalition" governments, "politically sensitive areas" like Naxal/terrorist-affected areas).
- Reaching out to mobile/migrant population (that is a significant proportion of population in some states) is another challenge.
- Lack of awareness is one great barrier to achieve cent percent immunization coverage. A more recent study in 225 villages of Uttar Pradesh corroborated the fact that lack of awareness is the one of the main reason for partial immunization/ non-immunization.
- Low levels of education negatively impact health-seeking behavior.
- In addition, adverse events following immunization even when these are shown to be unrelated to a vaccine, have been widely reported in the media and have contributed to a culture hostile to vaccination in certain communities.
- Supply side constraints are - inadequate delivery of health services (supply shortages, vacant staff positions, lack of training); lack of accountability, inadequate supervision and monitoring; lack of micro-planning at district level; general lack of inter-sectoral coordination and lack of coordination between state and central governments resulting in missed opportunities to improve immunization coverage and quality. Falsification of data and over-reporting of rates

are other big concerns as they give false sense of security and interfere with proper planning

## Steps Taken by Government

- Universal Immunization Programme:
  - The UIP provide free of cost vaccines to all children across the country to protect them against 11 life threatening diseases.
  - These 11 diseases are Tuberculosis, Pertussis, Diphtheria, Tetanus, Hepatitis B, Polio, Pneumonia and Meningitis due to Haemophilus Influenzae type b (Hib), Measles, Rubella, Rotavirus diarrhoea and Japanese Encephalitis (JE). (Rubella, JE and Rotavirus vaccine are given in select states and districts).
- Mission Indradhanush was launched in December 2014 with an aim to cover all children who are partially vaccinated or unvaccinated. The Mission focuses on interventions to rapidly increase full immunization coverage of children by approximately 5% annually and to expand full immunization coverage from 65% in 2014 to at least 90% children in the next five years.

## The Road Ahead:

- Political and Bureaucratic Will
- Effective Information, Education, communication (IEC) activities as lack of awareness is one of the major obstacles.
- Induct Innovative Methods to Improve Routine Immunization.
- Proper Monitoring of the Program
- Adverse Effects Detection, Reporting and Redressal System
- Provide Support to Indigenous Vaccine Industry
- Research and Development (R&D)

## Conclusion

- Immunization has delivered excellent results in reducing morbidity and mortality from childhood infections in the last 50 years.
- Although the success has not been as spectacular as in developed world, the fact is we have eradicated small pox and polio. There has been substantial reduction in the incidence of many VPDs.
- We now need to step up our efforts to strengthen all components of UIP (vaccination schedule, delivery and monitoring, and VPD/AEFI surveillance), overcome all barriers (geographical, politico-social and technical) and invest heavily in R&D to achieve immunization's full potential and a healthier Nation.

### 1.11. Miscellaneous

#### A) Nuakhai Juhar

- The 'Festival of Harvest' is more famously known as Nuakhai in Odisha where people celebrate it full spirit.
- The name 'Nuakhai' is a combination of two words, 'Nua' meaning new and 'khai' which means food. When put together, Nuakhai stands for new rice, further suggesting that the farmers in possession of newly harvested rice.

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- People worship food grain on this auspicious day which is looked upon as a new ray of hope.
- Also, farmers offer the first produce from their lands to goddess Samaleswari, to whom the festival is dedicated.
- Following the Hindu calendar, the day falls on the Panchami Tithi of the lunar fortnight in Bhadrapada (August–September) months, the day after the Ganesh Chaturthi festival.

### **B) YUVA - A Skill Development Programme**

- YUVA, a skill development programme, has been launched by the Union Minister Of Home Affairs.
- It is an initiative by Delhi Police under Pradhan Mantri Kaushal Vikas Yojana.
- It aims to connect with youth by upgrading their skill as per their competencies.
- It will help them to get a gainful employment under Pradhan Mantri Kaushal Vikas Yojna under the Ministry of Skill Development.
- Delhi Police has tied up with National Skill Development Corporation (NSDC) and Confederation of Indian Industry (CII) for providing mass job linked skill training for the selected youth. National Skill Development Corporation shall be providing skill training to the youth under PMKVY and CII will provide job linked training through its Sector Skill Councils which are connected to industry and thereby provide job guarantee.
- It is a bid to provide street children and unemployed youth in the city opportunities to realise their potential.
- So far, police said, 2,229 youths have enrolled for various courses at the learning centres across the city.

## 2. POLITY AND GOVERNANCE

### 2.1. Supreme Court Strikes Down Triple Talaq

#### In News

- The Supreme Court has held the practice of Triple Talaq as unconstitutional with a five-judge bench ruling against the practice in a 3:2 verdict.
- The issue was whether **talaq-e-biddat** was violative of the fundamental and human rights of gender equality and dignity of Muslim women.

#### Background

- The practice that many Muslim men employ to divorce their wives instantaneously and without their consent, merely by uttering the word talaq thrice, was rendered legally invalid by the **Shamim Ara vs State of UP judgment** of 2002 and subsequent orders from various High Courts.
- However, this has not stopped the practice; many Muslim women are unaware of the judgments or have had to accept such pronouncements owing to pressure from conservative sections.
- A Muslim woman named Shayara Bano filed a petition in the Supreme Court in 2015 appealing a ban on the practice after her husband ended their 15-year marriage by sending a letter with the word talaq written thrice.
- She pleaded the Supreme Court to declare talaq-e-bidat, polygamy, and nikah halala illegal and unconstitutional on the grounds that they violate the rights guaranteed by the Constitution under Articles 14, 15, 21 and 25.
- Later, several other women lined up with their petitions over the following months.
- During the hearing, the apex court had clarified that it may not deliberate upon the issue of polygamy and said it would only examine whether triple talaq was part of an "enforceable" fundamental right to practice religion by the Muslims.
- Earlier, in **Shah Bano Case and Daniel Latifi Case**, the court missed the opportunity to address the question of gender inequality.
- In the Shah Bano case, the court merely goaded the government to frame a Uniform Civil Code. In the Latifi case, it upheld the right of Muslim women to maintenance till re-marriage.

#### Key Highlights

- In a 3-2 majority verdict, the top court struck down the age-old practice under which a Muslim man could divorce his wife by uttering the word "talaq" thrice.
- The majority judgement held that "*triple talaq is a form of talaq that is manifestly arbitrary in the sense that the marital tie can be broken capriciously and whimsically by a muslim man without any attempt at reconciliation so as to save it*".
- The ruling held the practice to be "violative of the fundamental right under Article 14 (equality before law) of the Constitution of India".
- The verdict added that the provisions of Muslim Personal Law (Shariat) Application Act 1937, insofar as they seek to recognize and enforce triple talaq, must be struck down as being void.
- The minority view, however, held triple talaq to not be in violation of the provisions of the Constitution under challenge - Article 25 (freedom of religion), Article 14 (right to equality), Article 15 (prohibition of discrimination) and Article 21 (right to life)- which were limited to state actions alone.

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- The minority judgement upheld the validity of the practice and sought to shift the onus to Parliament to bring in a legislation governing Muslim marriages and divorce within six months.

MAJORITY VIEW	
<p> No constitutional protection under Article 25 can be provided to talaq-e-biddat, which is against the tenets of Holy Quran. What is bad in theology is bad in law as well</p> <p>JUSTICE KURIAN JOSEPH</p> 	<p> Hanafi jurisprudence finds talaq-e-biddat (instant divorce) permissible, but the very jurisprudence castigates it as sinful. Hence, it is not constitutionally protected under Article 25.. Talaq-e-biddat is manifestly arbitrary as it allows a Muslim man to capriciously and whimsically break marital tie without any attempt at reconciliation</p> <p>JUSTICE ROHINTON F. NARIMAN AND UDAY UMESH LALIT</p> 
MINORITY VIEW	
<p> Merely because instant divorce is not expressly provided for or approved by the Quran, it cannot be a valid justification for setting aside the practice. It has been in vogue for roughly over 1,400 years</p>	<p> It is an integral part of Islam as 90% Indian Muslims practise it. It is part of personal law and is constitutionally protected as a fundamental right under Article 25 (freedom of religion)</p> <p>CJI J.S. KHEHAR AND JUSTICE J. S. ABDUL MAZEER</p> 

### Criticism Of The Judgement

- First, the court can, at any time, cherry pick a religious practice, check if it forms an essential part of the religion, and if not, hold it impermissible. Courts have refused to criminalize a practice as heinous as marital rape, refused to decriminalize something as personal as homosexuality.
- Secondly, the court can find a practice to be an integral part of a religion and still prohibit individuals from practising it while directing the government to legislate on it (as the minority judgement upheld the validity of the practice and sought to shift the onus on Parliament to bring in a legislation governing Muslim marriages and divorce within six months).
- Without going into the question as to whether personal laws can be tested for violation of fundamental rights, the court has merely acted as a reformer of a religious community.

#### Forms of talaq:

- There are three forms of talaq — **Ahsan, Hasan and Talaq-e-Biddat** (triple or instant talaq).
- Ahsan and Hasan are revocable. Biddat — pronouncing divorces in one go by the husband — is irrevocable.
- Biddat is considered ‘sinful’ but permissible in Islamic law. The All India Muslim Personal Law Board (AIMPLB) holds that for the Hanafis, who make more than 90% Sunnis in India, triple talaq is a matter of faith followed for 1,400 years.

### Conclusion

Supreme Court’s judgment is a victory for all who believed personal laws must also be progressive and compliant with constitutional guarantees. One cannot deprive anyone from justice for long. This is a milestone for women empowerment.

## **Can SC Carry The Reformist Agenda Of Government Through Judicial Proceedings?**

Over a period of time Supreme Court has intervened in religious and cultural matters. In this case also the process of talaq is guided by Muslim Personal Laws. Hence, question is being asked about the need of judicial intervention in such matters.

### ***Arguments Opposing The Need Of Judicial Intervention***

- Principles of marriage, talaq and polygamy are interwoven with religious and cultural rights of Muslims. State intervention would be the violation of fundamental right (Article 25, 26, 29).
- Personal laws of a community cannot be rewritten in the name of social reform as the guiding authority is the religious scriptures. Also, courts cannot supplant its own interpretation over the text scripture.
- It is a matter of legislative policy (enforcement of universal civil code) and intervention by court would amount to judicial overreach.
- Religious traditions often respond to top-down reforms by growing more conservative and hence resist reforms. Universal Civil Code after Shah Bano case became the ground for communal politics, forcing the then government to nullify the verdict.
- Also, such intervention will lead to a situation where judges can completely overrule religious authority.

### ***Arguments In Favour Of Intervention***

- Essential Religious Practices Doctrine, propounded by SC, had set the outer limit of what could be the sole domain of religion. If the practices though religious may have sprung from merely superstitious beliefs and in that sense be extraneous and unessential accretions to religion itself, interference by Supreme Court becomes necessary as propounded in Durga Committee Case. Issue of triple talaq, polygamy etc. are not the sole domain of religion as it has wider social impact. Hence state intervention would not amount to violation of fundamental right.
- Personal laws of a community came into existence by interpretation of various religious scriptures. The interpretation can change with the changing values and norms of a society.
- Intervention would not amount to judicial activism as legislatures have failed to intervene due to vote bank politics. Further, it is not a top-down reform as more than 50,000 Muslim women and men have signed the petition to abolish these practices. Also, there has been demand from within the community to change these practices.
- In 2014, the Supreme Court (Shabnam Hasami Case) ruled that Muslim personal law or any other religious code could not prohibit adoption by childless couples. This was widely accepted by the community.
- These practices deny the notion of gender justice and violate the constitutional right of equality. Hence it is a case of violation of fundamental rights of women and Supreme Court is right in intervening.

### **Conclusion:**

- The issue is not whether a religious community has the right to live by its personal laws but whether any community has the right to live by rules that subvert the rights guaranteed to every citizen in the Constitution.

- Hence, to ensure the gender justice and too uphold the basic tenets of our constitution, judicial intervention is justified.
- However, the goal of judicial intervention should be as much to call for enactment of modern civil laws as it should be to ensure justice and fair play in personal laws.

## 2.2. Article 35A Comes Under Scrutiny

### In News

- The question whether Article 35A, *relating to special rights and privileges of the citizens of Jammu and Kashmir*, is ultra vires of the Constitution or not is likely to be heard before a five-judge Constitution Bench.
- A petitioner named Charu Wali Khanna has challenged the constitutionality of Article 35A as well as Section 6 of the Jammu and Kashmir Constitution, which deal with the permanent residents' status in J&K.
- Article 35A is a provision in the Constitution that empowers the J&K legislature to define "permanent residents" of the state and provide special rights and privileges to those permanent residents.
- It provides that any law made by the state of J&K defining who can be regarded as "permanent residents of the state" entitled to special privileges and rights in respect of enumerated items like right to be employed by the state, own immovable property or settle in the state or receive state grants like scholarship — **cannot be questioned** on the ground that it is arbitrary, discriminatory or that they are opposed to the other fundamental rights that guarantee every citizen the freedom to settle down in any part of India. In fact, the article under consideration is a restriction on the fundamental rights of "other citizens".
- The J&K Constitution, which was adopted on November 17, 1956, defined a Permanent Resident as a person who was a state subject on May 14, 1954, or who has been a resident of the state for 10 years, and has "lawfully acquired immovable property in the state".
- The J&K legislature can only alter the definition of PR through a law passed by a two-thirds majority.

### What The Petition Says

According to the petition:

- **Article 35A** protects certain provisions of the J&K Constitution which denies property rights to native women who marry from outside the State. The denial of these rights extend to their children also.
- Article 35A also empowers the State's legislature to frame any law without attracting a challenge on grounds of violating the Right to Equality of people from other States or any other right under the Constitution.
- **Section 6 of the Jammu and Kashmir Constitution** restricts the basic right of women to marry a man of their choice by not giving the heirs any right to property if the woman marries a man not holding the Permanent Resident Certificate.
- Her children are denied a permanent resident certificate thereby considering them illegitimate — not given any right to such a woman's property even if she is a permanent resident of Jammu and Kashmir.

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- Earlier, a 2002 order by the J&K High Court in the **State of Jammu and Kashmir Vs Dr Sushila Sawhney and Others** had said the daughter of a permanent resident marrying a person outside the State would not lose the status of permanent resident of J&K.

### Arguments That Support Petitions

- Article 35(A) discriminates against women who marry outside the State from applying for jobs or buying property, which is in violation of Article 14 of the Constitution.
- It is *void ab initio* as it is not passed by Parliament, but has been extended to Jammu and Kashmir by virtue of a Presidential order.
- Kashmiri politicians have been supporting it only to project J&K as different from India.
- Many analysts believe that Article 370, coupled with Article 35A, have provided a constitutional mechanism to promote fissiparous and separatist tendencies in J&K. This Article has created a state within a state and provided justification to so-called sub-nationalism.
- According to the Tribal Research and Cultural Foundation, this constitutional provision had adversely affected the development of tribal in the region. People from Gujjar and Bakerwal communities got scheduled tribe status way back in 1991, but they did not get political reservation in the state legislature despite the fact that they were the third largest group after Kashmiri Muslims and Dogras.

### Arguments That Decry Petitions

- State subject laws were brought into force by Maharaja Hari Singh in 1927 to protect Jammu Dogras from the rich people from Punjab. If these are removed, the greatest damage would be to Jammu Dogras in terms of economic condition, employment and identity. People of all three regions will suffer.
- The Jammu and Kashmir government have contested the petition saying the President had the power under Article 370 to incorporate a new provision in the Constitution by way of an order.
- Many believe that the move to repeal Article 35 A is, in effect, a ploy to alter the demography of J&K state by settling people from outside the state, with the right to acquire land and property, and vote in the assembly elections.
- Critics point out that the state's accession to the Indian Union and its special status are "two sides of the same coin" and "if there is debate on the legality of the Article, one will have to debate the accession itself.

### Conclusion

- It is worth noting that special provisions are made in the Constitution in respect of different states or parts thereof. Even at the inception of the Constitution special provisions were made in respect of northeastern and other states under Schedules 5 and 6.
- Articles 371 A to J were added through periodical amendments to meet the special needs of different states; none of them has created controversy because they do not promote a cloistered society immune from constitutional scrutiny.
- What is in challenge before the Supreme Court is the manner of introduction of Article 35A as a restriction on the rights of "other citizens" — other than Kashmiris who are also citizens of India — and its ability to stand the test of not destroying the "basic structure" of the Constitution of India.
- Both are pure questions of law not examined thus far and should not be mixed with the politics.

## **2.3. Harit Diwali, Swasth Diwali” Campaign**

- Ministry for Environment, Forest and Climate Change has launched the “Harit Diwali, Swasth Diwali” campaign.
- The campaign was launched with an aim to reduce adverse environmental conditions especially pollution in the country after post Diwali celebrations due to excessive bursting of crackers which contributes significantly to air and noise pollution.
- As a part of the campaign, the Environment Ministry will undertake various activities to create awareness among various stakeholders and encourage people to participate in combating air pollution.
- Some of the activities to promote Green Diwali among school children include stickers/logo distribution, poster competition, advertisement on public transport systems, public appeal using Radio/FM, involving industry associations and other stakeholders.
- As a part of the social media campaign, an online competition will be conducted, where any individual/organisation can make a video/audio clip on the theme ‘Pollution Free Diwali’. The best of these clips will be used officially to promote the theme across the country.

## **2.4. Digital Police Portal Under CCTNS Project**

### **In News**

- The Government has launched digital police portal under the CCTNS project, meant to create a national database of crimes and criminals.
- The portal will allow for registration of online complaints and requests for antecedent verification.

### **Key Highlights**

- The Digital Police Portal will enable citizens to register FIRs online and the portal will initially offer seven Public Delivery Services in 34 States & UTs, like Person and Address Verification e.g. of employees, tenants, nurses etc, permission for hosting Public Events, Lost & Found Articles and Vehicle theft etc.
- Besides, the portal will enable restricted access to law enforcement agencies on topics such as Antecedent Verification and make assessment of FIRs.
- The police portal will provide 11 searches and 46 reports from the national database for state police and central investigation agencies. Recently, the software was used to trace few mentally challenged women from Tamil Nadu in Uttarakhand and reunited with their families.

### **About Crime and Criminal Tracking Network & Systems (CCTNS)**

- CCTNS aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing at all levels and especially at the Police Station level through adoption of principles of e-Governance.
- CCTNS will operate through the creation of a nationwide networked infrastructure for evolution of IT-enabled state-of-the-art tracking system around “investigation of crime and detection of criminals” in real time, which is a critical requirement in the context of the present day internal security scenario.

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- The CCTNS project includes vertical connectivity of police units (linking police units at various levels within the States – police stations, district police offices, state headquarters, SCRB and other police formations – and States, through state headquarters and SCRB, to NCRB at Gol level) as well as horizontal connectivity, linking police functions at State and Central level to external entities.
- CCTNS also provides for a citizen's interface to provide basic services to citizens.

### 2.5. Opposition For All-India Judicial Service

#### In News

- According to the Law and Justice Ministry document, nine High Courts have opposed a proposal to have an all-India service for the lower judiciary, eight have sought changes in the proposed framework and only two have supported the idea.
- The long-pending proposal to set up the new service to have a separate cadre for the lower judiciary in the country is being reconsidered by the current government.
- The idea was first mooted in the 1960s.

#### Key Highlights

- High Courts of Andhra Pradesh, Bombay, Delhi, Gujarat, Karnataka, Madhya Pradesh, Patna and Punjab and Haryana have not favoured the idea of an All-India Judicial Service.
- Eight High Courts have suggested changes in the age at the induction level, qualifications, training and quota of vacancies to be filled through the proposed service.
- According to the document, most of the High Courts want the administrative control over the subordinate judiciary to remain with the respective High Courts.
- Government stand:
  - In order to reach a consensus, the government had recently suggested to the Supreme Court various options. This included a NEET-like examination, to recruit judges to the lower judiciary.
  - Besides the NEET model, the law ministry had also proposed that a "centralised examination" could be held by a "recruitment body" for selection of candidates and it can work under the supervision of the Supreme Court.
  - It also proposed that the Union Public Service Commission (UPSC) can also be asked to hold an exam to recruit judicial officers.
  - At present, various high courts and state service commissions hold exams to recruit judicial officers.

#### Background

- The ideal of an All-India Judicial Service was first mooted in the Chief Justices' Conference in 1961 as a way to remove any scope for judicial or executive intervention in the appointments to the judiciary in the High Courts and the Supreme Court in India.
- In its 15th report, the Parliamentary Standing Committee on Law and Justice has recommended its creation and directed the Law Ministry to take immediate steps for setting up such a service.
- 1st, 8th and 11th Law Commissions have also recommended setting up of AIJS.

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- Even Supreme Court, in two of its judgments in 1991 and 1993, had recommended setting up of an all India judicial service.
- Article 312 of the constitution also confers power on the Parliament to create All India Services.
- After the Swaran Singh Committee's recommendations in 1976, Article 312 was modified to include the judicial services, but it excluded anyone below the rank of district judge.

### Need for AIJS

- **Quantity of Judges:**
  - There were vacancies of 4,452 judges in subordinate courts in the country as per the figures released on December 31, 2015.
  - While the sanctioned strength is 20,502, the actual number of judges and judicial officers in subordinate courts is 16,050.
  - There are always 20% vacancies in the court and they are never filled on time.
- **Improve Quality Of Subordinate Courts:**
  - Ensuring fair and transparent selection of incumbents. Currently judges and magistrates are recruited through exams conducted by State PSC which lack integrity and objectivity and where nepotism and corruption are rampant.
  - This would naturally attract young and bright talents who rarely sit for these exams now days.
  - Rigorous training, for which there is very weak arrangements, for 2 years at National Judicial Academy will improve skills of recruits before they start hearing cases, and thus reduce delays.
  - Less chance of Politics-Judiciary nexus as judges are from outside.
- **Improve Quality Of Justice At Higher Courts**
  - By creating all India cadre of talented people.
  - Uniformity of standards for selection will improve quality of personnel in different HCs, as about 30% of judges in HCs come on promotion from subordinate courts.

### Challenges

- The lack of knowledge of regional languages would affect judicial efficiency.
- The avenues for promotion would be curtailed for those who had already entered through the state services, thus hampering career progression of State Judicial Service officers.
- Different State laws will pose challenge for judges each time they are transferred to another State.
- This would lead to an erosion of the control of the High Courts over the subordinate judiciary, which would, in turn, affect the judiciary's independence.

### Conclusion

- AIJS would bring in transparency and accountability in judiciary. It will result in professional, well-trained and disciplined cadre of judicial officers.
- These AIJS officers could start their career as additional district judges and eventually rise to become judges of the High Courts and the Supreme Court.
- We need to reach a consensus in order to create AIJS which is truly independent.

## 2.6. Motor Vehicles (Amendment) Bill 2017

### In News

- It was collectively decided to send the Motor Vehicles Bill 2017, which aims to usher in far-reaching reforms in the transport sector, to a Select Committee of the Rajya Sabha
- Many of the parties in Rajya Sabha sought more time to study the Motor Vehicles Bill, 2017.
- The bill, which would amend the nearly 30-year old Motor Vehicle Act, 1988 was passed by the Lok Sabha last year but had got stuck in the Rajya Sabha where the opposition had demanded that it be sent to the Select Committee for proper scrutiny.

### Key Features Of Motor Vehicles (Amendment) Bill 2017

- National Transportation Policy:** The central government is to develop a National Transportation Policy, in consultation with the states. This will help in identifying and specifying priorities for the road transport system.
- Compulsory Insurance:** The Bill requires the central government to constitute a Motor Vehicle Accident Fund. The Fund will provide compulsory insurance cover to all road users in India.
- Care for road accident victims:** The central government will develop a scheme for cashless treatment of road accident victims during golden hour. The Bill defines golden hour as the time period of up to an hour following a traumatic injury, during which the likelihood of preventing death through prompt medical care is the highest. The Bill also increases the compensation for death in a hit and run case.
- Protection of good samaritans:** The Bill defines a good samaritan as a person who renders emergency medical or non-medical assistance to a victim at the scene of an accident. Such a person will not be liable for any civil or criminal action for any injury to or death of an accident victim. This provision is incorporated following the directions of the Supreme Court in Save Live Foundation vs. Union of India.
- Offences and penalties:** The Bill increases the penalties for several offences under the Act. The Bill also recognizes offences committed by juveniles and make their guardians or owner of the vehicle liable for their action.
- Transportation schemes:** The Bill requires state governments to make transportation schemes that provide for certain objectives which may include: (i) last mile connectivity, (ii) reducing traffic congestion, and (iii) safety of road users.
- The Bill defines taxi aggregators, guidelines for which will be determined by the central government.

### Analysis

- Accidents kill 400 people every day on Indian roads. A government report indicates a loss to the economy of 3 per cent of GDP (1999-2000) due to road mishaps. With its focus on improvement of road safety, the proposed bill can reduce the number of accidents.
- It talks about strengthening rural transport, public transport, and last mile connectivity. It will help in improving the transportation ecosystem in India.
- The Bill has potential to reduce the corruption and waiting time in vehicle registration and licensing through the use of automation and e-governance.

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- Protection of Good Samaritan guidelines would further promote sense of responsibility among bystanders. It will induce them to extend much needed help to the accident victims. As a result many valuable lives would be saved.

### Criticism

- The proposed amendment seeks to put a cap on the liability to be borne by insurance companies in respect of third party claims. This provision will certainly frustrate the social welfare intent of compulsory third party insurance.
- The Bill caps the maximum liability for third party insurance, but does not cap the compensation amount that courts can award. In cases where courts award compensation higher than the maximum liability amount, it is unclear who will pay the remaining amount.
- State governments will issue licenses to taxi aggregators as per central government guidelines. Currently, state governments determine guidelines for plying of taxis. There could be cases where state taxi guidelines are at variance with the central guidelines on aggregators. This can impinge upon the rights of states.
- While the penalties for contravening provisions of the proposed scheme on interim relief to accident victims are specified in the Bill, the offences that would warrant such penalties have not been specified. It may be argued that imposing penalties without knowing the nature of the offences is unreasonable.
- The Bill does not address several issues around road safety that have been highlighted by other committees such as: (i) creating road safety agencies, and (ii) improving road design and engineering.

### Conclusion

- Although the Bill contains several noteworthy provisions which seek to ensure road safety, the provision seeking to introduce limited liability of insurer is regressive in nature, and can cause a lot of hardship to innocent victims of road traffic accidents.
- Also Good Samaritan guidelines and simplified procedures are welcome; much more needs to be done to encourage people to get involved in the rescue of accident victims. A good deal of sensitization is needed, and all States must get actively involved in their implementation

## 2.7. Simultaneous Lok Sabha And Assembly Elections From 2024

### In News

- The Niti Aayog has favoured conducting synchronised two-phase Lok Sabha and assembly elections from 2024 in "national interest".
- The report in this regard was contained in a recently released document of NITI Ayoga named "Three Year Action Agenda, 2017-18 To 2019-20".

### Key Highlight

- According to Aayog, the government should begin work towards switching to a synchronised two-phase election from the 2024 election to the Lok Sabha. This would require a maximum one-time curtailment or extension of some state assemblies.

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- It recommended to form a focused group of stakeholders which can draft appropriate Constitution and statutory amendments by agreeing on a workable framework to facilitate transition to simultaneous elections.
- It will also focus on developing a stakeholder communication plan and various operational details.
- It has made the Election Commission the nodal agency to look into the suggestion and set a "timeline" of March 2018 for this purpose.

### Arguments In Favour Of Conducting Simultaneous Election

- **Curtailment in expenditure –**
  - Elections are being held all the time somewhere or else in the country and continuous elections lead to lot of expenditure.
  - Approximately Rs 1,100 crore was spent in holding the 2009 Lok Sabha polls and the expenditure shot up to Rs 4,000 crore in 2014. The expenditure further shots up if we add the expenditure incurred during assembly polls.
  - Simultaneous elections can drastically reduce the expenditure which in turn can provide much needed leeway for the government to spend in other sectors.
- **Policy Paralysis –**
  - With the announcement of election dates, Model Code Of Conduct (MCC) gets enforced. As a result, the Governments cannot take major policy decisions.
  - The elected representatives seem to be campaigning in some state or the other throughout the year which further affects the decision making process.
- **Affects Developmental Activities –**
  - Conducting an election in India is a complex job and the entire government machinery gets involved. It affects the other developmental activities of the government.
  - Over a crore government employees, including a large number of teachers, are involved in the electoral process. Thus, the continuous exercise causes maximum harm to the education sector.
  - Many government officials are sent to other states on deputation for the purpose of conducting assembly election in that state. It affects the activities of government even in those states which are not undergoing an election.
- **Affects internal security –** Security forces also have to be diverted for the electoral work even as the country's enemy keeps plotting against the nation and terrorism remains a strong threat.
- **Historical precedent –** For nearly two decades after independence, polls to the Lok Sabha and most of the state assemblies were held simultaneously.

### Arguments Against The Idea Of Simultaneous Election

- Conducting simultaneous elections is a mammoth task. It will require large number of security personnel along with government officials to conduct the election. In current format, officials and security personnel are deployed on a rotation basis.
- Frequent elections have kept the government on its toes. It is general tendency that once elected, representatives slowly move away from the people. If there are no more elections for five years, the people will surely be forgotten for that duration.
- Frequent elections will keep the bond between the people and their representatives strong.

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- There are many questions, which needed to be answered before we go for simultaneous elections. These are:
  - Say, for instance, it is decided that elections to the Lok Sabha and all state assemblies will be held together in 2019. In such a scenario, what will happen to the assemblies elected in 2017 and 2018? Will they be dissolved?
  - In the event that the constitutional machinery in states break down, after simultaneous elections are held, necessitating dissolution of the assemblies prematurely, will these states be under the president's rule till the next elections?
- Regional issues might get merged with the national issues if simultaneous elections are conducted. Simultaneous elections might affect the regional parties in negative ways as regional parties will find it hard to compete with a party fighting national elections with a national agenda.
- It also has the potential to affect the national parties as a national party will have to be spread too thin if it is focusing on both national and state elections at the same time.

### Alternative Solutions

To get away with the practical infeasibility of conducting simultaneous polls, we can look at few things that can sort out the issues with current system. These are-

- For the model code of conduct to not be stretched out, we can have a single phase parliamentary election or even State polls, provided at least **10 battalions** of paramilitary are raised.
- The EC gives an informally held notice or leeway to political parties in states, of around 21 days before the actual poll dates before announcing it. **This can be reduced to 7 days**, the EC announces dates, and the period that the model code of conduct is in place becomes shorter," he said.
- The 79th report of the standing committee on law and justice suggests a two-phase poll, with States divided into two groups, one for which elections would be in the middle of the current Lok Sabha (16 States) and another where elections will be held at the end of the current Lok Sabha (19 States). By this process, at least half the States in India will have polls alongside Lok Sabha polls, and the rest in the middle of that term.
- The solution to excessive campaign expenditure and a much too focussed eye on the electoral cycle is better found in persuading political leaderships to develop self-discipline and to explain to the people the need for unpopular, but necessary, decisions.

### Conclusion

- Many have argued that frequent elections cost the public exchequer too much money and disrupt governance. But these concerns should not undermine basic democratic and federal principles.
- A deliberation on the issue is welcome. But it should be done with an open mind, keeping in mind feasibility as well as desirability.

## 2.8. Push For Law To Ensure Transparency Rules

### In News

- The Economic Survey has proposed Transparency of Rules Act (TORA), a legislation to end any asymmetry of information regarding rules and regulations faced by an average citizen.
- Basically, it is a public organization's compulsory declaration in electronic format.

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### Key Highlights

- All organization have to publish latest rules and regulations in a unified and comprehensible format, in English, Hindi and vernacular languages on their website.
- Officials will not be able to impose any rule not mentioned beforehand i.e. once an organization is declared “TORA-complaint”, ***any rule that is not explicitly on the website would be deemed not to apply.***
- All laws will have to be updated by the department while providing access to history of the same webpage.
- The Survey has specified that “laws would normally be applicable after a specified time (say seven days) after the rule has been posted”.
- If there is any error on the TORA page, the department, and not the citizen, must pay for the consequences of any error.

### Benefits

- It will help citizens overcome “an opaque mesh of complicated rules” that often leads to corruption and endless litigation
- It is not easy for ordinary citizens [and businesses] in India to navigate the multitude of rules, regulations, forms, taxes and procedures imposed by various tiers of government. Moreover, these rules frequently change and sometimes contradict each other.
- Even government officials struggle to keep up with ‘the latest version’ of complicated rules resulting into inefficiency and delays.

## **2.9. Proxy Voting For NRIs**

### In News

- The Government has approved changes in electoral laws to permit Non-Resident Indians to cast their vote in assembly and Lok Sabha elections from overseas.
- Once the proposal gets passed from Parliament, NRIs will be able to exercise their voting rights through “proxy”.
- Currently, only service personnel are permitted to vote through proxy.

### Key Highlights

- Overseas electors will have to appoint a nominee afresh for each election. This is different from the facility enjoyed by service personnel. The voters in the armed forces can nominate their relatives as permanent proxy to vote on their behalf.
- Also, one person can act as proxy for only one overseas voter.
- Only a person already enrolled in the same constituency in which the overseas elector is enrolled can be appointed as proxy for overseas elector.

### Background

- Approximately one crore Indians are settled abroad, of whom about 60 lakhs are adults and are eligible to vote.
- Overseas Indians were given right to vote in the elections in the country in 2010.

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- To implement this promise, the Representation of the People Act 1950 was amended and came into effect with a new section- Section 20A.
- This section made special provisions for every citizen of India residing outside the country to enrol themselves as electors, provided they had not acquired the citizenship of any other country and were otherwise eligible to be registered as a voter.
- However, their jubilation faded when Election Commission subsequently made their physical presence mandatory in their respective constituencies at the time of the polls to cast their votes.
- As a result, Non-resident Indians (NRIs) ignored the call of Election Commission to enrol their names in the voters list online.
- Only 11,844 out of an estimated 100 million NRIs across the world registered their names at the time of 2014 Lok Sabha polls. Of these, very few travelled to the country to exercise their franchise.
- The issue of proxy voting for NRIs came up in a PIL in the Supreme Court in 2014. The Supreme Court asked the EC to initiate a committee to examine the proposal, following which the Committee for Exploring Feasibility of Alternative Options for Voting by Overseas Electors was set up.
- The committee conclude that providing the proxy voting facility was operationally the most simple and viable option for facilitating voting by overseas electors.

### Criticism

- It could never be guaranteed that the proxy voter would vote as per the wishes of the actual voter.
- It is also said that proxy voting suffers from the inherent problem of ‘trust deficiency’ and violated the principles of ‘secrecy of voting’ and ‘free and fair elections’.
- It is against the fundamental right to equality. How can we give special privilege of distance voting to some people who have migrated abroad when there are many times more domestic migrants who also seek to have a voting right at their homes?
- There are strict regulations including the model code for campaigning. Bribery and inducements of voters are strictly kept in check. These are impossible to implement abroad.
- There is no guarantee that votes would not be sold to the so called proxy.

### Conclusion

A number of constituencies witness such close contests in every election in the state. The NRI votes will be crucial in such seats. Hence, political parties will do everything possible to woo the NRIs. However, this issue needs to be considered by long term national interest instead of possible short term political gains.

## **2.10. Right to Privacy a Fundamental Right**

### In News

- A nine-judge bench of the Supreme Court has ruled that Indians enjoy a fundamental right to privacy, that it is intrinsic to life and liberty and thus comes under Article 21 of the Indian constitution.
- The Supreme Court was hearing a case that challenged the Delhi high court’s September 2016 order by which it allowed WhatsApp to roll out its new privacy policy but stopped it from sharing the data of its users collected with Facebook or any other related company.

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- Through this judgement, the Supreme Court has overruled verdicts given in the **M.P. Sharma case in 1958** and the **Kharak Singh case in 1961**, both of which said that the right to privacy is not protected under the Indian constitution.
- The judgment finally aligned Indian laws with the spirit of Article 12 of the Universal Declaration of Human Rights (1948) and Article 17 of the International Covenant on Civil and Political Rights (ICCPR), 1966, which legally protects persons against the arbitrary interference with one's privacy, honour and reputation, family, home and correspondence.

### Evolution of Right to Privacy As A Fundamental Right

- First time the issue of right to privacy was discussed in debates of constituent assembly were K.S. Karimuddin moved an amendment on the lines of the US Constitution. However, it did not secure the incorporation of the right to privacy in the constitution.
- In **M.P. Sharma v Satish Chandra** Supreme Court, on the issue of 'power of search and seizure', held that they **cannot bring privacy** as the fundamental right because it is something alien to Indian Constitution and constitution maker does not bother about the right to privacy.
- In **Kharak Singh Case** 1961, Supreme Court - on the issue of whether surveillance amount to infringement of fundamental right and whether right privacy is come under the purview of fundamental right - denied the right to privacy as fundamental right.
- In **Maneka Gandhi v Union of India**, Supreme Court interpreted the Article 21 in broad sense. They said that both the rights of personal security and personal liberty recognized by Article 21 and Article 21 is of the widest amplitude and covers a variety of rights which go to constitute the personal liberty of man.
- Maneka Gandhi Case started the wide interpretation of Right to Life, which actually helped the Right to Privacy to fall into to the scope of Right to Life.
- In **People s Union for Civil Liberties (PUCL) v Union of India** 1997 - which is related to phone tapping- SC recognized right to privacy as part of Article 21. Supreme Court also said that whether right to privacy can be claimed or has been infringed in a given case would depend on the facts of the said case.
- Finally, it was in 2017 judgement that SC recognized right to privacy as fundamental right.

### Beef Ban Vs Right to Privacy

- The Maharashtra High Court had struck down certain sections [5(d) and 9(b)] of the Maharashtra Animals Preservation (Amendment) Act, 1995.
- These sections criminalised and imposed punishment on persons found in possession of beef of animals, slaughtered in or outside the state, on the ground that it infringed upon a person's "right to privacy".
- The Maharashtra government has challenged in Supreme Court the Bombay High Court's order that decriminalised the possession of beef, in case of animals slaughtered outside the state.
- The Supreme Court has said that its landmark judgment declaring right to privacy a fundamental right would have "some bearing" in matters relating to slaughter of cows, bulls and bullocks in Maharashtra.
- It is argued that the *right to eat food of one's choice was now protected under privacy*.

## **2.11. New System For Rating Bureaucrats Open To Bias**

### **In News**

- According to a report of parliamentary standing committee, the government's new system of rating officers on the basis of a 360-degree approach is opaque and susceptible to bias, manipulation and lacks fairness.
- The 360-degree approach is a new multi-source feedback system for performance appraisal of bureaucrats started by the current government for future postings.
- The system seeks to look beyond the ratings received in appraisal reports written by their bosses. It also relies on feedback of juniors and other colleagues for an all-round view.

### **Key Highlights Of The Report**

- The present 360-degree appraisal system is opaque, non-transparent, and subjective. Feedback in this process is obtained informally, making the process susceptible to being manipulated.
- The report mentions that most central posts of joint-secretary level and upwards go to IAS officers and adds that the majority of top posts should not go to any one service leaving others services out in the Central Staffing Scheme.
- The committee said that, since the new 360-degree system hinges on feedback about officers received from people who have worked with them — juniors and peers included such feedback could lack objectivity.
- Also, acting on such feedback behind the back of the officer may not be legally tenable particularly if it adversely affects the empanelment prospects of the officer.
- The report notes that the 360-degree approach does not have any statutory backing, or supported by any Act and it is based on executive instructions only.

### **Conclusion**

In the context of India, where strong hierarchical structures exist and for historical and social reasons it may not be possible to introduce this system unless concerns of integrity and transparency are addressed. We must note that the empanelment process be more objective, transparent and fair.

## **2.12. Judicial Performance Index Mooted**

### **In News**

- In its Three-year Action Agenda (for 2017-18 to 2019-20), the NITI Aayog has suggested several judicial reforms, including increasing the use of information and communication technology, and streamlining judicial appointments.
- The Niti Aayog has suggested introduction of a '**judicial performance index**' to check delay in trial and address the issue of pendency of cases.
- While mentioning that corruption cases get held up in the judicial system inordinately, the policy think-tank has also recommended putting a time-limit for processing them.

### **Proposed Measures**

- **Judicial Performance Index**

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- Such an index could be established to help high courts and high court chief justices keep a track of performance and process improvement at the district courts and subordinate levels for reducing delay.
- The performance index for courts will entail fixing of ‘non-mandatory time frames for different types of cases to benchmark when a case has been delayed.’
- The index can also include certain progress on process steps already approved by High Courts and such an annual evaluation should give judges in High Courts ‘a sense of where they are failing and what they need to fix.’
- Since the subordinate judiciary is largely within the domain of the High Courts, this could also spur competitive reform of the judiciary in those States.
- **Repeal all irrelevant legislation** by March 2019 and reform land ownership laws — which account for 67% of litigants in civil suits.
- The think tank has also called for **streamlining judicial appointments** on the basis of online real-time statistics on the workload of pending cases. Such data will help enable priority appointment of judges at the lower judiciary levels keeping in mind a scientific approach to assess the number of judges needed to tackle pendency.
- **Improve Policing:**
  - To improve the quality of policing, the think tank has asked the Home Ministry to create a task force to identify ‘non-core functions’ that can be outsourced to private agents or government departments in order to reduce the workload of the police.
  - India’s police to population ratio should reach the United Nations norms of 222 per lakh population, over the next seven years, from the current level of 137.
  - Red-flagging the adverse implications of crimes against women beyond ‘the obvious horror for affected individuals’, the Aayog has asked the Home Ministry to push for greater hiring of women in the police force, with a target of 30% of all new recruits.

### 3. ECONOMY AND INFRASTRUCTURE

#### 3.1. Government To Grade Skill

##### In News

- India is proposing to put in place an extensive rating criterion as part of the skilling initiative that will enable benchmark skilled personnel that includes plumbers, masons, drivers and domestic helps etc. to be graded on a scale of 1-10 for employability.
- Skills development ministry is finalising the **National Skills Qualification Framework** (NSQF) for adoption by 2019, which seeks to create employability benchmarks.
- The NSQF is a quality assurance framework for which the skills development ministry has laid down a five year timeline to ensure all skills training, government or private, is NSQF compliant to help bring about uniformity.
- The NSQF provides for a five year implementation schedule which provides that no government funding would be available for any training educational programme course which is not NSQF compliant after three years.

##### Significance Of The Decision

- This will help employer to identify well trained personnel, thus can make an informed choice.
- Following this, the recruitment rules of the government of India and CPSUs shall be amended to define eligibility criteria for all positions in terms of NSQF levels. Thus will reduce discretion in government job recruitment programme and consequent corruption.
- Helps in achieving high growth rate in manufacturing sector due to availability of skilled labourers.
- The India in future can emerge as the skill capital of the world and help in solving the problem of low paid jobs and informalisation.

##### Challenges

- **93% of workforce** are in informal sector, so difficulty arises in implementing the said decision.
- Industrial Training Institutes (ITIs) have failed to overhaul themselves and their syllabus is not in tune with industry requirements.
- Huge shortage of skilled trainers leading to poor training outcomes.
- Inability of poor to afford training programme.

##### Way Forward

- Documenting good practices and replicating them in other places like adopting **PPP based model**.
- Use of Aadhar for tracking beneficiary both at pre placement and post placement stage

#### 3.2. Subsidised LPG Price Hiked By Rs 2 Per Cylinder

##### In News

- Subsidised cooking gas (LPG) price was hiked by over Rs 2 per cylinder in line with the government decision to raise rates every month to eliminate all subsidies by fiscal end.
- Government has decided to increase the rates of cooking gas by Rs. 4 each month till LPG subsidy comes to an end. Currently, the subsidy burden is more than Rs. 40,000 crores per annum.

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- The fall in global oil price is right time to remove subsidies without impacting the consumers.
- The cut in subsidy would further strengthen fiscal discipline. It will also stop large scale diversion of LPG for household purposes to use for commercial purposes.
- However, it has some negative implications as well such as:
  - the move may affect poor people.
  - the recent decision of raising price defeat the purpose of providing subsidies to poor by using the financial saving under '**Give it Up**' campaign. Around 2.5 crore women, who were recently given LPG connection for free under the **Pradhan Mantri Ujjwala Yojna**, would find it difficult to avail LPG cylinders every month.
  - removing subsidies may affect public health as poor households may again trapped in biomass use for daily cooking.

### Way Forward

The said move of government is to fast track the price revision so as to better allocate scarce resources. The upfront subsidy distorts the market, breeds corruption and comes in the way of efficiency improvement. But at the same time government should continue to shield cooking gas customers, especially the poor from the volatility of international oil prices. Thus while framing policy the government would do well to balance the demands of reducing the burden on the exchequer with the imperatives of environment protection and equity.

### 3.3. Kerosene Price To Be Raised Till Subsidy Is Over

#### In News

- Recently government has asked state oil companies to keep raising prices of subsidised kerosene by 25 paise every fortnight until the subsidy is eliminated.
- Currently Kerosene is only used for lightning, **only 2%** use it for **cooking** (as per 2011 census), and PDS (Public Distribution system) kerosene leakage is almost about **40%**.

#### Positive Impact Of The Decision

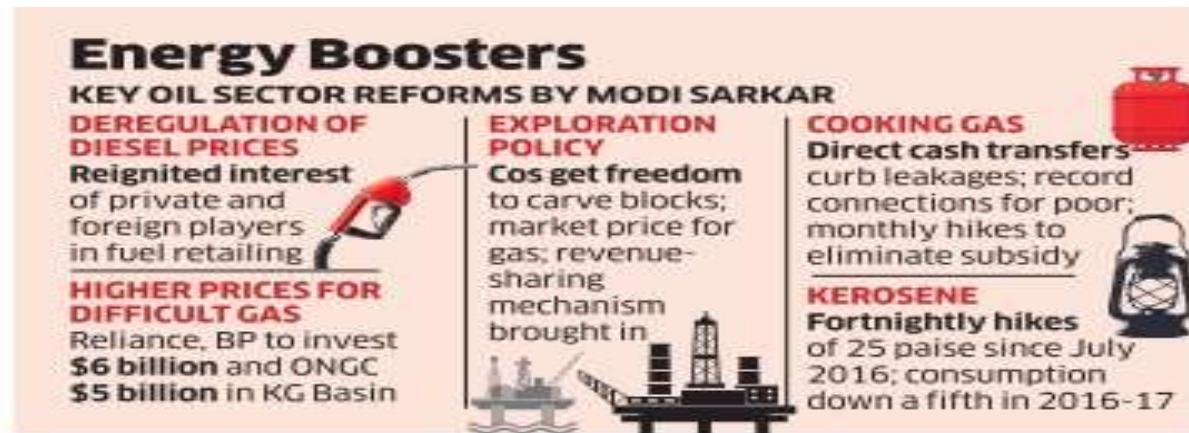
- The demand for kerosene is falling due to electrification of villages. Moreover, the government has also supplied cooking gas to poor people under **Ujjwala Yojana**.
- Subsidised kerosene is also misused to adulterate diesel, thus damaging vehicle as well as environment.
- Eliminating subsidies will bring kerosene closer to the market price, thus preventing not only its diversion but also push people to use LPG.
- High fiscal cost of kerosene subsidy to the tune of **31000 crore** which was also leading to high import bill.

#### Challenges In Implementation

- Lack of a streamline and unified consumer database. In case of kerosene, consumer data is with the individual states under PDS system. Thus coordination among the large number of state level actors create barrier.
- The opposition by some of the states as the kerosene subsidy is important political currency for the state government.

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- The price difference between diesel and unsubsidiised kerosene will still be high enough to give an incentive to the middlemen to divert the fuel as diesel substitute.
- The determination of quantum of subsidy each household is eligible for will be a complex task.



### Way Forward

There is a need to move towards solar assisted solution for lightening and LPG for cooking. This will be economically beneficial to government as well as household in long run.

### 3.4. Govt Launches E-RaKAM Portal For Selling Agri Produce

- The government has launched a portal **E-RaKAM (Rashtriya Kisan Agri Mandi)**, to provide a platform to sell agricultural produce. The portal is a joint initiative by state run auctioneer MSTC and Central Warehousing Corporation arm CRWC.
- E-RaKAM is a first of its kind initiative that leverages technology to connect farmers of the smallest villages to the biggest markets of the world through internet and e-RaKAM centres.
- E-RaKAM is a digital initiative bringing together the farmers, FPOs, PSUs, civil supplies and buyers on a single platform to ease the selling and buying process of agricultural products.
- Under this initiative, e-RaKAM centres are being developed in a phased manner throughout the country to facilitate farmers for online sale of their produce.
- This will also neutralise the role of middlemen in the farm trade, and if implemented effectively, farmers' income can be increased by not just double but four to five times. Now various crops whose price increases due to rainfall or bad weather conditions, will be managed and get the market.
- However, initial hurdles will be there as most of the farmers are illiterate and are in bad condition. Also, cooperation from States and technology platform should be simple and east so as to implement the programme effectively.

### 3.5. RBI Cuts Repo Rate By 25 Bps To 6%, Lowest In Over 6 Years

As some of the upside risks to inflation have not materialised, the RBI decided to cut the key policy rate or repo rate by 25 basis points to 6% taking it to its lowest in six-and-a-half years.

#### RBI Forecast On Chances For Inflation

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- Due to the implementation of farm loan waivers by States, risk of high inflation persist.
- State governments will implement hike in salary and allowance, following the Centre's implementation of the seventh pay panel related hikes. This will also add to inflationary pressure.
- However, a second successive normal monsoon that could check food costs and a stable international commodity price outlook that could help keep the inflation trajectory favourable.

### Way Forward

- Impulses for growth in industry and services are weakening. So Centre and the States are to take enabling steps, through policy measures and directed fiscal actions to give a thrust for the revival of private investment.
- In a poor investment climate, it is incumbent upon the government to do as much as it can to remove policy bottlenecks and address specific industry pain points.

### **3.6. RBI Flags Poor Transmission Of Past Rate Cuts Through MCLR**

#### In News

- Reserve Bank of India is reviewing the **Marginal cost based lending rate (MCLR)** system and exploring linking of the bank lending rates directly to market determined benchmarks to ensure a better transmission of interest rates.
- MCLR is the minimum rate of interest below which the bank can't lend the loan with the exception of certain cases as approved by RBI.
- Monetary Transmission- Monetary transmission refers to the process by which a central bank's monetary policy decisions are passed on through financial markets to businesses and households.

#### Reasons For Introducing MCLR

- RBI decided to shift from **Base Rate to MCLR** because the rates based on marginal cost of funds are more sensitive to changes in the policy rates.
- This is very essential for the effective implementation of monetary policy. Prior to MCLR system different banks were following different methodology for calculation of base rate /minimum rate – that is either on the basis of average cost of funds or marginal cost of funds or blended cost of funds.
- To bring transparency in the methodology followed by banks for determining interest rates on advances.
- To ensure availability of bank credit at interest rates which are fair to borrowers as well as banks.
- To enable banks to become more competitive and enhance their long run value and contribution to economic growth.

#### Current Problems With Monetary Transmission

- Banks are not doing enough to pass on the full benefit of its rate actions to the borrowers and help revive the sagging private investment for economic growth.
- Banks have been selective in their rate cuts in aggressive segments like home and auto loans but in other segments, borrowers are still tied to the base rate.
- Ongoing resolutions on the NPA front will help in better transmission as the bank's balance sheet stress is resolved.

## What RBI Has Done

- An **internal Study Group** has been constituted to study MCLR system from the perspective of improving the monetary transmission and exploring linking of the bank lending rates directly to market determined benchmarks.
- RBI will be coming out with final guidelines on tripartite repo to deepen the corporate bond market which by working as an alternative to the bank lending will also force banks to tinker with the rates quickly.
- RBI is forming a high level task force to help develop a “**comprehensive near real-time public credit registry**”.

## 3.7. RBI Plans To Set Up Public Credit Registry

### In News

- RBI has announced to set up a panel to consider creation of a Public Credit Registry (PCR) operated by the regulator.
- The PCR will be an extensive database of credit information for India that is accessible to all stakeholders.
- The idea is to capture all relevant information in one large database on the borrower and in particular the borrower's entire set of borrowing contracts and outcomes.

### Positive Impact Of Setting Up PCR

- A PCR can potentially help banks in credit assessment and pricing of credit.
- The PCR can also help RBI in understanding whether transmission of monetary policy is working, and if not remove the bottlenecks.
- A central repository which captures the credit data will help in preventing over pledging of collateral by a borrower.
- PCR can help in early intervention and effective restructuring of stressed bank credits.

### Conclusion

The said step of RBI is a step in right direction to tackle the growing menace of bad loans and asset quality of the banks. It will not only prevent granting loans on basis of same collaterals but also help in sharing the required financial data about the borrowers between the different banks.

## 3.8. GST: Composition Scheme Picks Up Pace After Deadline Leeway

### In News

- About a million taxpayers have opted for a scheme that will benefit small businesses in the Goods and Services Tax (GST) regime by allowing easier compliance and a flat rate of tax.
- About 11 per cent of GST taxpayers have opted for the composition scheme.
- Those with an annual turnover of up to Rs 75 lakh (Rs 50 lakh in the case of eight north-eastern states and the hilly state of Himachal Pradesh) are eligible to apply for the scheme.

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- It allows them to pay **one per cent** tax if they are traders, **two per cent** if they are manufacturers (other than those of ice cream, pan masala and tobacco products), and **five per cent** if they are in the restaurant business.

### Benefits Under The Scheme

- In comparison with regular taxpayers, person taxed under Composite Scheme will be liable to pay tax at a rate not more than 5% instead of a standard rate of 18 %. Thus there will be **limited tax liability**.
- A dealer registered under the composition scheme is not required to maintain detailed records which a normal taxpayer will have to keep. This will benefit small businesses by **reducing the cost** of maintaining detailed accounts.
- It will reduce the compliance burden for small enterprises thus promoting **ease of doing business**.
- A composition dealer only needs to furnish one return **GSTR-4** on a quarterly basis and an annual return in form **GSTR-9A** against three forms on a monthly basis by a normal taxpayer.

### Challenges

- Those dealing only in goods can opt for the composition scheme and service providers barring restaurants are kept out of it.
- Besides, a composition dealer is not allowed to avail input tax credit.
- Such a dealer cannot issue a tax invoice as well. Thereby someone buying from a composition dealer will not be able to claim input tax on such goods, limiting the popularity of the scheme.
- The composition scheme is not available on inter-state supply of goods.
- Response to the scheme could have been better had the conditions not been this stringent.

### Way Forward

The existing challenges to this scheme need to be addressed so to increase its popularity, increasing compliance rate of GST, and at same time improving ease of doing business.

### 3.9. Illegal Mining To Attract 100% Penalty, Rules Supreme Court

#### In News

- The Supreme Court held that illegal mining, including absence of mandatory forest or environment clearances and air or water pollution norm violations, would incur 100% penalty on the mineral. The court further said there can be no compromise on the quantum of compensation it should be 100%.
- The defaulting lessee must bear the consequences of the illegality and not be benefited by pocketing 70% (the central empowered committee or CEC had suggested only 30% recovery) of the illegally mined ore.
- SC also held that anyone violating any aspect of environmental and forest laws would be liable to compensate for illegal mining under Mines and Minerals (Development and Regulation) Development Act, 1957 (MMDR Act).
- The bench further noted, **National Mineral Policy 2008** seems to be only on paper and is not being enforced and asked government to frame a new National Mineral policy.

#### Consequences Of The Decision

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- The Supreme Court's landmark order slapping heavy penalties, that could amount to 25,000 crore on companies, can hit output in the months ahead.
- It may trigger similar claims in mineral rich Jharkhand.
- It may increase the prices of the minerals, thus affecting the industries which uses minerals as their raw material like steel industries.
- It may also affect the export of minerals, thus putting pressure on Balance of payment.

### Way Forward

The government should pass New National Mineral policy providing for stringent penalties and special courts to try such offences. Moreover it should be accompanied by the use of technology such remote sensing to check illegal mining.

### **3.10. Lok Sabha Passes Bill To Raise NABARD's Capital To Rs 30000 Crore**

The **National Bank for Agriculture and Rural Development (Amendment) Bill 2017**, aimed at enabling exit of RBI from NABARD and increase authorised capital of the development institution six times to Rs 30,000 crore, was recently passed by the Lok Sabha.

#### Highlights of The Bill

- The Bill seeks to amend the National Bank for Agriculture and Rural Development Act, 1981.
- **Increase in capital** of NABARD- Under the 1981 Act, NABARD may have a capital of Rs 100 crore. This capital can be further increased to Rs 5,000 crore by the central government in consultation with the Reserve Bank of India (RBI). The Bill allows the central government to increase this capital to Rs 30,000 crore. The capital may further be increased to more than Rs 30,000 crore by the central government in consultation with the RBI, if necessary.
- **Transfer of the RBI's share** to the central government- Under the 1981 Act, the central government and the RBI together must hold at least 51% of the share capital of NABARD. The Bill provides that the central government alone must hold at least 51% of the share capital of NABARD.
- The Bill transfers the 0.2 % equity share capital held by the RBI and valued at Rs 20 crore to the central government.
- Micro, small and medium enterprises (MSME)- The Bill replaces the terms 'small scale industry' and 'industry in the tiny and decentralised sector' with the terms 'micro enterprise', 'small enterprise' and 'medium enterprise' as defined in the MSME Development Act, 2006.
- Under the 1981 Act, NABARD was responsible for providing credit and other facilities to industries having an investment of upto Rs 20 lakh in machinery and plant. The Bill extends this to apply to enterprises with investment upto Rs 10 crore in the manufacturing sector and Rs 5 crore in the services sector.
- Under the 1981 Act, experts from small-scale industries are included in the Board of Directors and the Advisory Council of NABARD. Further, banks providing loans to small scale, tiny and decentralised sector industries are eligible to receive financial assistance from NABARD. The Bill extends these provisions to the micro, small and medium enterprises.
- **Consistency with the Companies Act, 2013-** The Bill substitutes references to provisions of the Companies Act 1956 under the NABARD Act 1981 with references to the Companies Act 2013.

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These include provisions that deal with: (i) definition of a government company, and (ii) qualifications of auditors.

### NABARD

- It is an apex development and specialized bank established on **12 July 1982** by an act by the Parliament of India.
- Its main focus is to uplift rural India by increasing the credit flow for elevation of agriculture & rural non farm sector.
- It has been accredited with matters concerning policy, planning and operations in the field of credit for agriculture and other economic activities in rural areas in India.

### **3.11. FCI Let Over 4 Lakh Tonne Wheat Rot Away: CAG**

#### In News

- In an audit report on the Food Corporation of India (FCI), the Comptroller and Auditor General of India has said that more than 4.72 lakh tonnes of wheat valued at Rs 700.30 crore got damaged in Punjab till March 2016 due to delay in implementation of the PEG (Private Entrepreneur Guarantee) scheme which was expected to increase the storage capacity of food grains in the state.
- The damaged wheat was declared as non-issuable for public distribution as it was stored in open areas. The auditor also found that the state owned FCI sold wheat to bulk consumers at a rate below the cost under Open Market Sale Scheme during 2013-14 leading to non-recovery of Rs 38.99 crore.

#### Analysis Of The Problems Associated With FCI

- High food wastage due to lack of adequate availability of scientific storage facility.
- Limited Farmer outreach- FCI procurement is confined to only 6% of farmers and that too for rice and wheat.
- Food price inflation- FCI mop up 1/3<sup>rd</sup> of rice and wheat production; and lack of timely market release of food grains by FCI lead to inflation.
- High fiscal cost of grain storage to high buffer cost subsidy.
- Departmental labour salaries are a huge drag on the finances of FCI.

#### Way Forward

- A gradual movement to Direct Benefit Transfer (DBT) without compromising the interest of poor section of society.
- Adopting a Close ended, decentralised procurement and distribution system. (Close ended procurement implies FCI procuring only for buffer stock).
- Restructuring FCI into three parts dedicated to procurement, logistics and distribution.
- Implementing the recommendation of **Shanta Kumar Committee** after due deliberation such as Decentralised procurement, State to bear the expanses of cost of storage above buffer norm etc.

### **3.12. Project Starting Gun Fired- Bullet Train**

#### In News

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- Work on the Mumbai-Ahmedabad bullet train project is expected to commence soon when first tranche of \$1 billion from a total loan of about \$ 14 billion will be released during the visit of Japanese PM Shinzo Abe in September.
- The \$17 billion high speed rail line of 508 km is to be built on Japan's **Shinkansen Technology** and is expected to be operational by 2022-23.
- The total expected cost of the project is Rs 1,10,000.

### Positive Outcomes From The Project

- Access to technology- the project will help India to access latest technology and support **Make in India** programme.
- The project will also boost domestic manufacturing sector as it will create demand for engines, coaches, signaling equipments.
- Cheap credit availability- Japan will provide 90% of the said project cost at the interest rate of 0.1% per annum with tenure of 50 years.
- The project has many environmental benefits as it will reduce road congestion and lead to better energy efficiency.

### Challenges

- Economic viability- Huge cost of project (more than 1 lakh crore) and Indian railway being cash strapped may not be able absorb such burden.
- High passenger fare for such bullet trains may not be affordable to the common man.
- The project may not be able to compete with economic prices of airfares.
- The Indian railway is already facing challenges on various counts such as safety, lack of capacity augmentation etc. Thus the said project is seen as a misunderstood priority.

### Way Forward

The project is a step in right direction but at the same time existing institutional, infrastructural problems faced by the railway also need to be dealt on war footing. This will lead to holistic development of railway.

### 3.13. India In No Hurry To Grow GM Food Crops

#### In News

- The government has decided to examine all objections raised by scientists and farmers before taking a decision on genetically engineered (GE) mustard.
- Earlier **Genetic Engineering Approval Committee** (GEAC) had given approval to GM mustard in May 2016.

#### Arguments In Favour Of GM Crops

- These crops can withstand drought, pest etc. which is a must requirement for making agriculture **climate resilient**.
- The GM crops can curb the use of pesticide thus reducing the environmental damage.
- The GM crops can ensure food security as they are high yielding varieties.

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- India can emerge as a net food exporter thus not only helping in bringing foreign exchange but also making farmers financially secure.

### Arguments Against GM Crops

- Fear of monopoly of MNC's in agriculture due to introduction of **terminator seed** (which can be used only once).
- The technology of genetic can impact human health and environment.
- The irreversibility and uncontrollability of GM technology once introduced in the ecosystem is also a concern.
- GM crops can also be a threat to the domestic and wild varieties of the crops.
- There is that pests may develop resistance to the toxins produced by GM crops.
- GM toxins can also affect non target organisms.

### Way Forward

- There is a need for a transparent regulatory system by setting up **Biotechnology Regulatory Authority of India (BRAI)**.
- Independent scientific assessment on GM crops needs to be put for public scrutiny.
- Moreover there is a need for consultation and participation of public in decision making on GM crops.

### 3.14. Colour Of FDI Inflows Is Turning Brown

#### In News

- Record foreign direct investment (FDI) which flows into India now have a distinctly regional flavour. Asia's richer neighborhood has begun rivaling Anglo-American investors in building factories in the continent's third-largest economy.
- The share of Asia in the total FDI has more than doubled in the past four financial years.
- Asia's share in Indian FDI was always about 5-10%. It is now 25-30%, and the biggest contributions are pouring in from South Korea, Taiwan, China, and Japan. And Singapore has emerged as a key origin market.

#### Reasons For Latest Trend

- Enhancement of FDI limits in certain sectors by the government and potential opportunities available for investing in the world's fastest growing economy.
- Indian government has also taken steps to improve **Ease of doing Business** thus attracting FDI.
- New opportunities have emerged for the foreign investor like investment in Bullet train project, **Make in India project** etc.
- The slowdown in other nations like China has also led to emergence of India as a favorable destination for foreign investment.

#### Benefits of FDI

- FDI is a good substitute of debt for the developing countries.

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- FDI supplements domestic investment and ease pressure on Balance of Payment.
- FDI creates forward (like providing new investment opportunities for local firms) and backward (create demand for local inputs, labour etc.) linkages in the economy.
- FDI increases export competitiveness by increasing access to technology and helping in modernization of export sector.

### Likely Challenges In Future

- The lack of coordination between Center and States has created delay in acceptance of FDI proposal.
- The rigid labour laws and infrastructural bottlenecks etc. has further hindered the incoming FDI.
- FDI crowd out domestic investment and displaces domestic entrepreneur.
- The FDI has been restricted to bringing in capital only and has not led to transfer of technology.
- FDI has at same time led to large trade deficit on account of repatriation, dividend and royalty payment to foreign entity.

### Way Forward

The increase in FDI cap should be accompanied by taking steps to improve general business environment like policy stability, ease of doing business, single window clearance and also initiating **second generation reforms** (like labour reforms, subsidy reforms, skill development etc.).

### **3.15. Lok Sabha Clears Bill On Merger Of SBI Associate Banks**

#### In News

- Lok Sabha passed **State Banks (Repeal and Amendment) Bill, 2017** which merged subsidiary banks of State Bank of India (SBI) with the parent bank.
- Five associates and the Bharatiya Mahila Bank became part of SBI from April 1.
- The five associates are the **State Banks of Bikaner & Jaipur, Hyderabad, Mysore, Patiala and Travancore**.

#### Advantages

- Consolidation would not only lead to cutting of losses but also increase capital base and the bank's ability to give loan.
- With this merger SBI enters the list of top 50 banks globally at **45th place**.
- Increased balance sheet will enable SBI to get better pricing on internationally sourced fund and domestic deposits thus improve its profitability.
- SBI can become one of the anchor bank to finance large infrastructural projects like dedicated freight corridor etc.
- It will increase the networking of SBI and help it to reach remote locations.
- It will reduce duplication as SBI and its associate targets the same client with similar products.

#### Criticism

- Opposition argued that it was a way to gloss over rising non-performing assets of banks which in SBI's case had risen to close to 1.4 lakh crore.

- Banking competition will be affected as SBI is likely to be **five times** larger than its nearest competitor.
- Human resource Management will be of top concern as salary, seniority, posting etc. will create a big challenge.
- SBI has been declared as a **Domestic systemically Important Bank** (D-SIB) and its failure can shock other parts of financial system.

### Way Forward

Consolidation of banks is a right move but needs proper planning, strict measures and compliance of guided norms to avoid future risks. Moreover human element (employees) should also be focused while consolidating banks.

### **3.16. The Economic Survey II: Exports Will Get 5% of Global Pie With Special Efforts**

#### In News

- Economic Survey II says change in tariff, schemes and free trade agreement (FTAs) will help India gain respectable share in world exports amid rising protectionism.
- It further says India's rising trade deficit and protectionist tendencies on the global front are areas to watch for in the short term as India's share in global exports has stagnated at 1.7 % from 2011 to 2016 with intermittent drops to 1.6%.
- Many trade restrictive measures, including several types of non-tariff barriers (NTBs), restrictions on visas and risk of backlash against movement of persons add to a situation that is of growing concern.
- The survey said that special efforts are needed to take India's exports to a respectable share of at least 5% in world exports from 1.7% in 2016 which is very low compared to China's 13.2%.

#### Steps Suggested By Economic Survey To Boost Export

- Rationalising tariffs, having useful free trade agreements with some major countries will help India gain a respectable share in world exports.
- Streamlining **export promotion schemes** as many duties have been subsumed under GST.
- Adopting demand based export basket diversification rather than a mere supply based strategy.
- Developing world class export infrastructure and logistics on a war footing.
- It also said the focus should be on increasing FDI linked and value added exports particularly high tech exports as in China and some ASEAN countries.
- It also called for having free trade pacts and comprehensive economic cooperation agreements with some major nations while actively expanding engagement with BRICS and ASEAN where India enjoys competitive advantage.
- It also put forth the idea of a national priority sector for exports and drawing greater participation from the states by linking devolution of funds to states with their export efforts, and formulating a clear-cut agri trade policy.
- Besides the major strategies, it also said cross-cutting trade policy issues and sector-specific issues like making power available at competitive rates, including lower rates for non-peak hours can be a game changer for textiles exports.

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- Similarly, a big push to electronics hardware exports can be given with a hardware-software combination and moving from assembling to building a robust manufacturing base with a well settled value chain.

### Way Forward

Policy of improving export has to be less inventive based (such as interest subvention) rather should focus more on improving general cost competitiveness (such as better export infrastructure).

### 3.17. Banking Regulation Bill Gets Rajya Sabha Nod

#### In News

- The Rajya Sabha passed the **Banking Regulation (Amendment) Bill, 2017** which empowers the Reserve Bank of India (RBI) to issue instructions to the banks to act against major defaulters.
- Current Non performing assets (NPA) stood at 6.41 lakh crore.
- World bank's Ease of doing business report** puts India at 137 out of 189 countries in resolving insolvency.

#### Features Of The Proposed Amendment

- The Bill seeks to amend the Banking Regulation Act, 1949 by inserting provisions for handling cases related to stressed assets.
- The Bill basically empowers RBI to give directions to banks to act against loan defaulters.
- The Central Government can authorise the RBI to issue directions to banks for initiating proceedings in case of a default in loan repayment.
- The RBI may also form committees to advise banks on the resolution of stressed assets. The members will be appointed or approved by the RBI.

#### Benefits Of The Proposed Amendment

- It will expedite the resolution of NPA problem in the banking sector.
- Earlier banks couldn't invoke the insolvency and bankruptcy code due to fear of being questioned. Now with RBI directing banks to initiate insolvency, this will be a transparent and market determined approach.
- The objective is also to give a stamp of approval of the regulator so that the decision of banks will not be questioned later on.
- Moreover earlier the banks that were part of a consortium found it difficult to trigger bankruptcy proceedings. This ordinance attempts to solve this problem.

#### Criticism Of The Proposed Amendment

- Public sector banks account for 88% of the NPAs in the country. As a majority it is the government which has the authority to initiate recovery of 88% of the NPAs without involving the RBI.
- The existing Section 35A of the 1949 Act allows the RBI to issue binding directions to banks in '**public interest**' or where the functioning of a bank is '**detrimental to its interests**'. But these terms being ambiguous leaves a lot of discretion to the RBI.
- It is not appropriate for the RBI as a regulator to direct banks on business decisions such as recovery of loans from specific defaulters. Generally the role of the regulator is restricted only to

formulating broad guidelines to be complied with by all banks. Thus it can lead to conflict of interest for RBI.

- It is not clear that whether the RBI discretion to grant direction is only for the time being or will be a permanent phenomena.

### Way Forward

The move is in right direction as it will not only improve ease of doing business but also the insolvency resolution process. But it needs to be ensured that Insolvency code is implemented in its true letter and spirit to realize the code's full potential.

### 3.18. Centre's Ebiz Initiative Stutters Due To Technical Glitches

#### In News

- The eBiz portal project, unveiled by the Centre in 2013 to serve as an online, single-window entry point for investors looking to set up a business anywhere in the country, is still struggling to become fully operational.
- While State governments have not come on board for critical components of the eBiz project, technical glitches have arisen in the plan to integrate all clearances onto a single system owing to government departments opting for different technology platforms.
- It may be noted that the partner ministries and departments offering their services through eBiz portal have migrated their existing applications to new technology platforms (Employees' Provident Fund Organisation migrated to Oracle and Ministry of Corporate Affairs migrated to SAP V2). This has impacted the availability of their services on the eBiz portal.
- Such changes, the DIPP has pointed out, require additional efforts to resolve technology migration issues and the 'limited availability of technical resources' at individual departments causes delays in integration with the National eGovernance Service Delivery Gateway (NSDG, the middleware to integrate services between departments and the portal).
- Testing the integration of individual services with the eBiz portal also added to delays, the DIPP told the parliamentary standing committee on commerce, citing 'dependency on multiple stakeholders' such as NSDG, banks and state treasuries.
- More than two years after discussions began with the States to devise a state-level composite application form (CAF) for investors that would integrate about 14 state government services and permits, this key component of the eBiz portal is also stuck with no takers, except Delhi, so far.

### Way Forward

For the success of Ebiz portal there is a need of coordination of the efforts of the Central and state government. Moreover the adequate resources need to be set aside for this ambitious project. This will not only improve India's Ease of doing Business ranking but also make it attractive destination for the foreign investment.

### 3.19. Willful Defaulters Owe Rs 92,000 Cr To PSU Banks

#### In News

- Public sector banks have reported 20 per cent jump in the outstanding loans by nearly 9,000 willful defaulters who collectively owed to lenders more than 92,000 crore at the end of March this year.

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- At the same time there has been close to 10 per cent increase in the number of willful defaulters on annual basis.
- The Companies such as **Kingfisher airlines** highlighted the issue of willful default when it willfully failed to pay the loan of 9000 cr.

### Reason For The Rise Of Willful Default

- Lack of adequate enforcement mechanism for willful defaults thus gives boost to such practices.
- Poor functioning of Debt Recovery Tribunal (DRT) thus leading to spurt in willful defaults.
- Poor banking standard operating procedures like poor pre sanction diligence.
- Political interference in working of the banks leading to practice of **crony capitalism**.
- Moreover the discretionary powers have been given to banking officials without accountability.

### Steps Taken To Fix Liability On Willful Defaulter

- In order to check incidences of willful default, RBI has tightened the norms and made it clear that promoter of the defaulting company cannot escape from his responsibility even if he is not a whole time director. As per earlier guidelines, a bank couldn't label a non-whole-time director of a company as a willful defaulter unless there was conclusive evidence that the individual was aware of the willful default by the company and had not objected to it.
- RBI has also allowed banks to name and shame willful defaulters by publishing their photographs.
- Banks and institutions are required to submit the list of suit filed accounts of willful defaulters at the end of every quarter to the Credit Information Bureau India Ltd (CIBIL). This helps to put other banks and institution on guard against such Companies and individual.
- SEBI has barred willful defaulter from raising money through stock exchanges.
- Insolvency and bankruptcy Code, 2016 has been passed by the Parliament to resolve insolvency including willful default on priority basis.

### Way Forward

- There is need for bringing more transparency in the system and list of all the defaulters whose loans have been written off by the PSBs is made public.
- Implementing the recommendation of **PJ Nayak committee** on banking reforms that includes independence of banks from political interference.
- Fixing the liability of lenders to create a sense of accountability.
- Exemplary action against the willful defaulters may be taken so that others do not indulge in similar activities.

### **3.20. Rescuing e-National Agriculture Market (e-NAM)**

#### In News

- The much touted National Agriculture Market (e-NAM), the electronic portal for trading in agricultural produce launched last year, has failed to take off.
- Some of the State government has started showing procurement of wheat under minimum support price (MSP) operations as e-NAM trading. This makes a mockery of the concept, as there is only one buyer (the government) and a fixed price (MSP). So, where is the multiple buyer-transparent-

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price-discovery chain which e-NAM had promised? This defeats the very purpose of e-NAM and seen as a effort towards window dressing.

### Intended Impact of e-NAM

- e-NAM as a parallel platform (virtual one) will be able to compete with the physical mandis run by the APMCs.
- It will offer farmers and traders an alternative to sell their produce to a wider regional and national market with a larger number of buyers participating.
- This competition between e-NAM and APMC run mandis is expected to improve the choices available to farmers.
- Eventually it will help to reform the APMC mandi system in becoming more transparent, allow greater competition and create facilities for grading of produce.

### Gap Between Intended Effect And Actual Scenario

- Given the resistance by few States, the e-NAM proposal was modified to locate the NAM portal exclusively within the existing mandis and States were allowed to decide the pace at which they would link the APMC mandis to e-NAM over a period of time. This scuttled any hope of e-NAM ever taking off as a significant competitor to the mandi system.
- Since the states managed to convince Centre that e-NAM could only function under the rules framed under the APMC Act, key decisions such as the number of traders to be registered, the commodities to be traded on e-NAM, whether or not to allow traders from outside the state to participate, etc, were left in their control.
- This explains why not a single state, among those that have joined e-NAM, has allowed traders from outside to participate in electronic bidding on e-NAM. In fact, most states have not even permitted traders in other districts of the same state to participate in e-NAM trading outside their own district.
- So, far from creating a seamless, unified national market for agriculture produce, as e-NAM was grandly supposed to do, not even an integrated state-wide market has been created anywhere. The monopoly of the APMC mandis continues unchecked, with their long legacy of restricted competition among a handful of traders, opaque price discovery methods and poor service level to farmers.

### Way Forward

- For the success of e-NAM project, the cooperation of the state government is must. Hence they need to be financially incentivised to reform the APMC act.
- The grain merchants at the local mandi level need to be involved in the decision making and benefits of e-NAM should be communicated to them.
- Moreover the e-NAM should be developed on the lines of the Bombay Stock Exchange (BSE) or National Stock Exchange (NSE). That is to say that anyone meeting a basic set of requirements (such as minimum godown space, quality assaying facilities, internet connectivity and a basic financial net worth) will be authorised to plug into e-NAM from anywhere in the country and engage in trading of agricultural produce.

### **3.21. Corporate Governance: Focus On SEBI**

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## In News

- The exit of **Vishal Sikka** as the chief of multinational IT giant Infosys brings forth the issue of corporate governance yet again.
- Market participants said that the Securities and Exchange Board of India (SEBI) needed to intervene in such matters to protect the interest of investors, especially the retail segment.
- SEBI has also recently constituted a committee on corporate governance under the chairmanship of **Uday Kotak**

## Challenges In Ensuring Corporate Governance In Companies

- Interference of the promoters in day to day functioning of the company, thus corporate governance norms takes a back seat. (**family domination** in Indian companies)
- Poor enforcement of the corporate governance norms under the **Companies Act, 2013**.
- In India corporate governance continues to be subjectively interpreted as the corporate governance norms are still evolving.
- Moreover, India is moving towards internationally accepted norms of corporate governance, and for this it is bound to see such kind of volatility.
- Lack of adequate protection to the Minority shareholders in India as board of directors is not empowered enough and remains subordinate to the majority shareholders.

## Way Forward

- SEBI should install a **three tier governing system** for companies where a supervisory board is constituted and should lay down the framework for the functioning of board of directors. The board of directors in turn should oversee the functioning of the executive management. Multinationals companies like Google and Microsoft are governed in this manner.
- The supervisory board comprising of eminent personalities will monitor performance as well as the value system for the company and this alone will create wealth for the company and keep it on the tracks.

## 3.22. Train Mishap: Unacceptable Rise

## In News

- The railway accident at Khatauli in Uttar Pradesh that left 22 people dead and over 200 injured was due to gross managerial negligence.
- The Haridwar-bound Kalinga Utkal Express sped along track that was undergoing repair without being warned beforehand. It suggests sheer callousness and shocking disregard for rail safety. The latest mishap suggests systemic failure.
- There were over 60 such untoward incidents in 2016, up almost 40 per cent from the previous year.

## Reason For Accidents And Damage

- **Poor Rolling Stock:** Most of the rail accidents take place in trains categorised as non-VIP ones, unlike the Rajdhani, Shatabdi, etc. So, mostly poor people lose their lives. Does that mean Rajdhans and Shatabdis are absolutely safe? The answer is a big no. As the tracks and signalling system are common, what is different is the quality of rolling stock, namely locomotives, LHB (Linke hoffman Busch) coaches and better monitoring of tracks before such trains pass on them.

- **Lackadaisical Approach Of Government.**
  - The reports prepared by experts in consultation with the railways gather dust. The Kakodkar and Sam Pitroda committee reports are just two, in recent times.
  - Successive governments have to take the blame, all those who have treated the Indian railways as a political tool rather than an asset, capable of transporting people and freight and adding at least two per cent to our GDP.
- **Financial Shortage:** The present problem of the railways is that the organisation is on the verge of bankruptcy. The Depreciation Reserve Fund (DRF) and Development Fund (DF) are getting depleted, since the railways are cash-starved. To replace an old asset (tracks, rolling stock or signalling systems), you need to put money in the DRF. On an average, the system requires Rs 20,000-25,000 crore year after year to replace old assets. Instead of that, a provision had been made for a mere Rs 3,200 crore for the DRF in the 2016 budget. Therefore, the much required replacement of old assets is postponed — knowingly compromising safety.
- **Focus On Peripheral Issues:** The railways have lost their focus from operation with safety, to peripheral activities like catering, Wifi, bullet trains, etc. The railways are also spending less on existing assets, like tracks, rolling stocks, etc., while the replacement of worn-out assets is not being done.
- **Heavy congestion** has also compromised the ability of railway to maintain the tracks. Railways track capacity has failed to develop in consonance with growth in passenger and freight traffic.
- **Lack of adequate manpower at the lower level** of the organization leading to overburdening of ground level staff thus increasing the chances of rail accidents due to human failures.
- The quality of maintenance isn't being monitored while replacement of LHB coaches is happening very slowly — if trains will have LHB coaches, the casualties would have been less. Further, continuous track circuiting (CTC) is needed on all tracks to detect rail fractures. With CTC, the derailment of train would not have occurred.

## Conclusion And Way forward

- In conclusion, we need to go for a generational change in our railway system and completely *modernise it with latest technology*. For this, the government needs a *massive investment programme* without relying on revenue from the railway's internal generation. This investment will not only save precious lives, it will give handsome dividends to the GDP.
- Anil kakodkar Committee on Safety and Bibek Debroy Committee on restructuring have recommended creation of *statutory safety authority*, *speedy replacement of ageing coaches with modern LHB design*, and *revamped management* which focuses on core train operations.
- In 2016-17 Budget, Suresh Prabhu had promised that all zonal railways will have ultrasound flaw detection machines by March 2017 to test track quality. This needs to be done on priority.
- Indian railways need to be benchmarked to the Japanese railway system, Shinkansen, which, since 1964, has been carrying millions of passengers with zero fatality.

## 3.23. Export-Oriented Policies Can Relieve Farm Distress

### In News

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- Agricultural exports have traditionally outstripped imports by handsome margins. But a sharp 21 % decline in exports and a much sharper 65 % rise in imports of farm goods in the past four years have virtually eroded the positive trade balance.
- Farm exports have dwindled from \$43 billion in 2013-14 to below \$34 billion in 2016-17 while imports have surged from \$15 billion to over \$25 billion during the same period.

### Reasons For The Current Trend And Problems With India's Agricultural Trade Policies

- The global commodity prices have fallen thus export of farm commodities has fallen in terms of value.
- Ill advised agricultural pricing and trade policies have also contributed to the present trend i.e. government favours import of even those products whose indigenous production can easily be raised to meet growing demand.
- Agricultural trade policies is also characterized by extreme volatility i.e. when world prices goes up or there is domestic scarcity, export restriction are imposed; and when reverse happens, import tariffs are imposed.

### Effect Of Such Knee Jerk Based Export Policies On Farm Distress

- Due to uncertainty in export policies, farmer are hesitant to produces such commodities which leads to domestic scarcity of such commodities.
- The lower production increases the prices of such commodities, thus it hurts the consumers.
- Moreover such ill advised export policies create expectation for the next year. This enhances the crop area leading to overproduction of such farm commodity which consequently depresses the price. This vicious cycle continues for the indefinite time.
- Instability in farm export policies also leads to under investment in agro processing industries as pointed out by economic survey 2015-16.

### Way Forward (Importance Of Stable Export Policy To Relieve The Farm Distress)

- Farm export policies should be announced well in advance and should not be altered except under exceptional circumstances.
- Knee jerk reaction to the prices should be avoided.
- There is also a need to create supportive infrastructure and a quality assurance mechanism for agricultural export.
- The implementation of the above recommendation can relieve the current farm distress and double the farmer's income by 2022.

### **3.24. NITI Aayog Suggest Reforms For The Coal Sector**

NITI Aayog has suggested reforms to spur up the coal sector which has been facing challenges on various counts.

### Challenges Facing The Coal Sector

- High coal import despite India having the **301 billion tonne** of coal reserves.
- Irregularity in the allocation of captive coal mines.
- Inadequate steps taken towards coal exploration.

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- Lack of adequate connectivity with railways that lead to poor evacuation.
- Lack of independent regulator and monopoly of Coal India has deterred the entry of private sector in coal mining.
- Poor safety record of Coal India in underground mining.
- High focus on Open cast mining (it contribute more than 90% of the total output) has many environmental hazards like coal dust pollution etc.

### Suggestions Of NITI Aayog

- NITI Aayog suggested spinning off Coal India's subsidiaries into separate entities so that each can independently develop its own strategy and business model.
- It has also suggested using market mechanism to open the coal-mining sector for commercial mining and also taking steps for transition of coal pricing on commercial lines.
- It further said that there is a need to end the current practice of segmenting coal markets between power and non power sectors with subsidy being given to the ultimate intended beneficiary through direct benefit transfer.
- Allowing specialized mining firms to mine coal can go a long way towards improving the efficiency of mining.
- It also suggested that efforts should be made to improve labour productivity, augmenting coal production and enhancing efficiency of distribution. The output per man shift (OMS) from underground mines should be raised to increase coal production from underground coalmines, which is currently around eight per cent of the total coal output.
- To boost production, the ongoing auction process and transfer of mining lease and other related activities of captive mines to the new successful bidders should be expedited by 2018.
- The production from captive blocks has been targeted at 400 MT by 2020, it therefore suggested that the yearly targets should be devised and where required coalmines should be re allocated to achieve the above target.

### Recent Steps Taken To Reform The Coal Sector

- Government has introduced a new coal linkage policy called *Scheme to Harness and Allocate Koyla Transparently in India (SHAKTI)*.
- Amendment in **Mines and Mineral regulation Act 1957** to introduce auctioning process of coal mining.
- Introduction of National Mineral Exploration Policy.
- Power Purchase agreement between Coal India and Power generators.

### Conclusion

The implementation of NITI Aayog suggestions will help in resolving the current challenges facing the coal sector. It will not only bring transparency in coal sector, but will also make the sector more efficient.

### 3.25. Patchy Progress In 100 Days Of RERA

#### In News

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- The Real Estate (Regulation and Development) Act, 2016 (RERA) ushered in a new regulatory regime on May 1 2016. *For details of Act, please refer Part 1 (May 2017) of CA Magazine.*
- RERA was enacted to bring transparency in real estate sector and to ensure timely completion of the project but it is facing hurdles on various counts.
- A hundred odd days later the regulatory structures are still falling in place.

### Expected Benefits Of The Legislation

- It will protect the interest of the consumer and ensure efficiency in the real estate market.
- It will help in timely completion of the project by improving the accountability of the project developers.
- It will prevent diversion of the funds by the builders.
- The act is in consonance with the Smart city project and Housing for all scheme launched by the government.
- The act will solve the problem of excess inventory and NPA (Non performing assets) in the real estate sector.

### Progress So Far

- Most of the projects are still not RERA registered. There has been patchy implementation of RERA across states over the last four odd months. As just seven states have started the process of online registration of real estate projects and agents.
- There is still ambiguity of jurisdiction (as land is a state subject) and lack of coordination between Center and State.
- Under the influence of the builder lobby, many States have kept several ongoing projects outside the purview of the new regulatory regime. For instance, in Uttar Pradesh and Haryana ongoing projects that have completed development work and have applied for completion certificates are currently excluded from RERA coverage.
- Uniform application of ratio of 70:30 (70% of the amount received from the prospective buyer has to be kept in separate escrow account) has delayed the project as in metro cities price of land is the major component of the project cost. But the builder is unable to utilize the 70% of the deposited amount thus delaying the acquisition of land.
- The land market in India is still regulated by multiplicity of laws thus creates confusion.
- The RERA act has not been able to resolve the problem of black money in the real estate sector.

### Way Forward

For the successful implementation of the RERA Act, the cooperation of the state machinery is must. Therefore the state must provide enabling ecosystem for the act. Moreover the Real estate regulatory authority needs to be empowered in true sense to provide timely remedy to the home buyers.

### **3.26. Miscellaneous Issues**

- *Mission Electrification*
  - Ministry of Railways has organised an event for Exchanging of Agreement with Stakeholders as part of "Mission Electrification".

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- The mission was launched in 2016 and it targeted to complete electrification of 24,400 route kilometer of Broad Gauge network in next five years.
  - Under the Mission, Ministry of Railways for the first time entrusted the electrification process to PSU's outside the ministry's preview.
  - Power Grid Corporation India Limited (PGCIL), transmission sector PSU under Ministry of Power has been granted license to do electrification works.
- **BHARAT 22**
    - A new Exchange Traded Fund (ETF) by the name BHARAT 22 was recently launched.
    - The value of an ETF unit rise or fall in line with the value of underlying stock (in this case the value of stock of 22 companies). Investors can purchase ETF units which are listed on the stock exchanges. ETFs are similar to mutual funds in a certain manner but are more liquid as they can be sold quickly on stock exchanges like shares.
    - Bharat 22 consists of **22 stocks of CPSE's, PSB's & strategic holding of SUUTI**. Bharat 22 is a well Diversified portfolio with 6 sectors (Basic Materials, Energy, Finance, FMCG, Industrials, and Utilities).
    - **ICICI Prudential AMC** will be the ETF Manager and **Asia Index Private Limited** (Joint Venture of BSE and S&P Global) will be the Index Provider.
    - Bharat 22 is expected to speed up a disinvestment programme i.e. budgeted to raise 72,500 crore in the fiscal year 2018. The ETF will give the government another tool to monetise its stakes in state run companies.



## 4. INTERNATIONAL AFFAIRS

### 4.1. U.S. Sanction Bill Against Russia, Iran And North Korea

#### In News

- US President Donald Trump signed new sanctions against Russia, Iran and North Korea.
- Members of Congress supported the legislation in such overwhelming number that they had the power to override the President if he had vetoed the legislation.
- The sanctions include the blocking of property, exclusion from entering the United States and the freezing of transactions with people subject to sanctions

#### About The Sanction Bill

##### ***Sanctions on Russia***

- The US congress justified a new set of sanctions against Russia as the response of Moscow's interference in the 2016 US election (which is under investigation), its human rights abuses, and its military aggression in Ukraine including the annexation of Crimea.
- The bill essentially prohibits President Trump from lifting any existing sanctions against Russia without first explaining to Congress in a report, which hold the right of approval or disapproval under expedited procedures.
- The Russian sanctions will target people and entities that undermine US cyber security on behalf of the Russia government, invest certain amounts in Russia's energy export pipelines, conduct significant transactions with Russian defense and intelligence agencies, commit or assist in serious human rights abuses and provide support to the Syrian government to acquire arms.
- The new law will have negative effects on the reset in US-Russia relations that both Trump and Putin had openly called for.

##### ***Sanctions on Iran***

- The sanctions center around the country's ballistic missile program, human rights abuses and the Islamic Revolutionary Guard Corps (IRGC). The IRGC, which is sanctioned under other laws, has been charged with terrorism-related sanctions for the first time and is blacklisted by the US.
- The new law says the IRGC is behind Iran's international destabilization program including international terrorism and the ballistic missile program.
- Other reasons for sanction include - Iranian support for terrorist organizations such as Hezbollah and Hamas which are threatening to destabilize the Middle East; supporting the regime of Syrian President Bashar al-Assad despite Assad's atrocities against his own people and arming Houthi rebels in Yemen.

##### ***Sanctions on North Korea***

- The sanctions on North Korea are justified on the ground that North Korea has dramatically increased its ballistic missiles testing in recent months and recently it tested its longest-range missile (that experts say could reach the US mainland).
- The new measures will sanction foreign entities doing business with North Korea which could be a way of the US putting more pressure on China to stop economic activity with the country. China is the country's biggest trading partner.

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- The sanctions relate to the country's missile testing, human rights abuses and financial institutions. There is already a long list of sanctions against North Korea imposed by the UN Security Council and the new law tightens and modifies some of those.
- The law also calls on the Secretary of State to submit a decision to Congress on whether North Korea should be designated a state sponsor of terrorism.

### **Global Response**

- The sanctions showed that a full-fledged trade war had been declared against Russia. After Congress approved the sanctions, Moscow retaliated and reduced the number of U.S. diplomats in Russia in response. The European Union expressed its deep reservations about the new sanctions on Russia that may affect energy flows to Europe affecting EU's energy security.
- In response to the sanctions, North Korea threatened retaliation against the United States and vowed to never give up its nuclear arsenal. China officially welcomed the new sanctions and urged North Korea to cease taking actions that might further escalate tensions.
- Iran said new sanctions are against the terms of its nuclear deal with the United States and other world powers and vowed an appropriate and proportional response.

### **4.2. U.S. Racial Attack Issue: Charlottesville Attack**

#### **In News**

- In Charlottesville, Virginia, rally protests turned violent as white supremacists clashed with counter-demonstrators and a car crashed into the crowd of anti-racist and anti-fascist protesters.
- A Unite the Right rally was planned to protest against the removal of a statue of Confederate icon General Robert E Lee (A son of American Revolutionary War hero Henry Light-Horse Harry Lee, Robert E. Lee distinguished himself in various battles during the US-Mexico War.).

#### **Reasons For Rise In Right-Wing Groups In U.S.**

- During the campaign of Presidential election the newly elected president's talk of a Muslim ban combined with his broad characterizations of immigrants as violent criminals bears resemblance to ideas supported by hard-right groups.
- Hence, since the election of President Donald Trump, news outlets and social media accounts have filled with reports of swastikas at schools, racist taunts and other hate-fueled attacks and acts of intimidation.
- The enthusiasm for Church Militant mirrors a shift in hate-related activity since the start of Mr. Trump's presidential campaign.
- Another reason for the rise is that the right extremists are competing directly with the left on economic policy and the far right has been proved able to brand itself as stable.
- The far right is exploiting the rift in the left and the rise of the far right is because the left is having an identity crisis of its own.
- Fears of an erosion of Western culture sparked by the refugee crisis have also led to a rise in xenophobia which far right movements have capitalized on.

Q. In the context of recent Charlottesville racial attack in U.S.A. explain the reasons for the rise in Right wing groups in U.S.A.

## 4.3. Israel-Palestine Al- Aqsa Issue

### In News

- Jerusalem, the spiritual center of the monotheistic faiths, was ravaged by protests over new Israeli security restrictions at a holy site sacred to both Jews and Muslims.
- The violence left at least two Palestinians dead and more than 200 Palestinians injured in violent clashes between protesters and Israeli security forces in East Jerusalem and the West Bank.

### About The Issue

#### Background

- Jordan's monarchy has administered Al-Aqsa mosque compound in east Jerusalem since 1924. Israel captured east Jerusalem from Jordan in the 1967 war and annexed the area which was never internationally recognised. But under fragile diplomatic arrangements, Jordan continued as custodian which was reaffirmed in its peace treaty with Israel in 1994.
- The Al-Aqsa mosque compound in east Jerusalem has been at the centre of Palestinian protests after Israel introduced controversial security measures at the site earlier in the month of August.
- Though the security devices including metal detectors and barriers have been removed after protests but tensions remain high.
- The compound known to Muslims as the Noble Sanctuary and to Jews as the Temple Mount is sacred for both sides and has long been a bone of contention for their rival religious and national narratives.
- Many of Jordan's seven million citizens are of Palestinian origin. King Abdullah of Jordan urged Israel to respect the historical and legal situation in the holy shrine to prevent the recurrence of these crises.

#### Current Issue

- A brazen assault, using weapons smuggled into the holy site by three Palestinian citizens of Israel and leaving two Israeli border police dead, took place in the holy area.
- In reaction to the terror attack, Israeli government imposed unusually strict security measures on access to the Temple Mount and the area around the al-Aqsa Mosque which locates at the center of the Temple Mount plaza
- The Waqf had called for the boycott and protests sprang up opposing Israel's changes to the delicate and perpetually tense status quo.
- Those restrictions triggered further tensions across the West Bank and East Jerusalem as well as across the greater Middle East.
- Solidarity protests took place in Ankara, Turkey as well as Amman, Jordan and as far away as Yemen and Malaysia.

#### Current Status

- Thousands of Palestinians have re-entered al-Aqsa Mosque compound in occupied East Jerusalem after Israeli authorities lifted an age restriction.
- The Islamic Waqf religious authority that administers the compound announced that all gates would be opened to Palestinians of all ages.

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- Earlier in the day Israeli police prevented access to the holy shrine for men under the age of 50 and closed some of the compound's gates.

### 4.4. Japan Backed India In Doklam Standoff

#### In News

- In a significant act of support for India in its protracted military standoff with China at Doklam near the Sikkim-Tibet-Bhutan trijunction, Japan has said there should be no attempt to change the status quo on the ground by force.
- The Japanese statement came as an endorsement of the Indian position that China has violated agreements with India and Bhutan in attempting to build a road through Doklam plateau which is part of Bhutan.

#### Reasons For The Support

- Japan's support to India over Doklam standoff is not a surprise. In fact it was Japan in January 2014 which asked India to forge a support to thwart Chinese expansionist moves in the East China Sea as well as in the Himalayas.
- Japan's call for a united opposition to Chinese moves had come in the backdrop of Beijing's unilateral move to change status quo in the East China Sea where it had imposed Air Defence Identification Zone (ADIZ).
- This time too India has asked China to respect 2012-understanding according to which no country would alter the status quo unilaterally in the eastern sector of India-China border.
- Japan has another reason for supporting India against China. Beijing lays claim over its islands. In May 2017 Japan scrambled its warplanes after four Chinese ships and a drone aircraft entered the Senkaku Islands. Japan said that it was the first time Beijing has used an unmanned aircraft in Senkaku, which Chinese call as Diaoyu. Japan had then said that China was escalating the situation unilaterally and it was unacceptable to Tokyo.
- Further with China growing its might in the India-Pacific region, Japanese trade may be subject to dominance of China.
- A huge volume of Japanese trade passes through the Strait of Malacca over which China wants to have influence by luring Indonesia, Singapore and Malaysia. But India continues to be the dominant naval power in the region. Japan finds a friendly India a profitable proposition than an adversarial China.

#### India's Diplomatic Win

- Japan's backing of India is significant as it is the first time a major power has come out openly in support of India.
- The US has maintained equidistance by saying that both India and China should sit and talk on the issue while taking measures to de-escalate troop's build-up.
- The Japanese Embassy has conveyed to New Delhi that the country is closely monitoring the Doklam standoff and is of the view that no country should make an attempt to unilaterally change status quo by force but to resolve the issue in a peaceful manner.

#### Current Status Of Doklam Standoff

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- Since the Border Peace and Tranquility Agreement of 1993, India's relations with China had been stable and even predictable. The two countries managed their border issues well and have created layers of confidence building measures that aided the process.
- But this time China was reluctant to come to the discussion table and continuously deployed its forces at the Doklam tri-junction.
- China and India have agreed to end a lengthy standoff at the Sikkim border that began in June with Beijing reportedly abandoning plans to construct a road that had triggered the crisis.
- The Indian ministry said the two sides had agreed to defuse the crisis following diplomatic talks.

***For Details on Doklam Standoff, please refer Part 2 (June 2017) of CA magazine.***

### 4.5. Trump's New Afghan Policy

#### In News

- President Donald Trump outlined the new policy and plan for the 16-year US war in Afghanistan vowing that the US would find victory over terrorism.
- The President declared that he would no longer announce troop levels but would focus on allowing US forces to target the Taliban and other terrorist groups wherever they were in Afghanistan.

#### About The Policy

- In its broad outlines the policy announced by U.S. president is not very different from that pursued by former President Obama at the end of his administration.
- Obama originally had planned to reduce the number of U.S. troops to about a thousand stationed at the U.S. embassy in Kabul. But on the recommendation of his military advisors, he twice modified planned troop reductions to leave more Americans in deployment.
- The new element in the policy is Trump's suggestion that he would put pressure on Pakistan to stop providing a safe haven for the Taliban and associated groups.
- U.S. president suggested that the U.S. was open to the idea of peace negotiations in the future with elements of the Taliban. But in the meantime, Trump has concluded that the U.S. must continue to be engaged militarily in Afghanistan.
- Perhaps the biggest military change Trump announced was to relax US authorities to attack the Taliban and other terrorist groups in Afghanistan.
- The end-goal of Trump's plan in Afghanistan was to bring the Taliban to the negotiating table to find a political solution to the Afghan war.

#### Global Response

- China came to Pakistan's defence after the U.S. president said the US could no longer be silent about Pakistan allegedly providing safe havens for militants.
- Afghan President Ashraf Ghani welcomed Trump's move to commit thousands of more troops to the war as Taliban militants vowed to make the country a graveyard for US forces.
- India welcomed Trump's remarks regarding provision of safe havens to terror groups allegedly operating out of its rival's territory.

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- The UK also welcomed Trump's commitment to step up the military campaign in Afghanistan.
- The North Atlantic Treaty Organisation (NATO) has welcomed Trump's new strategy and said that the US-led military alliance remains committed to the conflict-torn country.

### 4.6. Blue-Whale Game

- The blue-whale suicidal game has been linked to at least 130 teen deaths across Russia, UK and India. The authorities have now started banning the game and issued warning for parents about the blue whale challenge.
- The Blue Whale challenge is a social media based game, which has led its players to commit suicide.
- It gives certain tasks to its players for a period of 50 days and the final task leads to suicide. The player is also asked to share photos after finishing the every task.
- Some of these tasks are normal such as listening to music sent by curators while some are weird or dangerous such as cut your lips, poke your hand with a needle and hurt yourself. Participants have to share proof, photos of having completed the challenges/tasks.
- The horrific tasks include self-harming, watching horror movies and waking up at unusual hours but these gradually get more extreme.
- On the 50th day, the controlling manipulators behind the game reportedly instruct the youngsters to commit suicide.
- This isn't a game that can be downloaded from an app store. Users might download an APK sent by an administrator or by clicking a link on social media platforms such as Instagram or Facebook. Hashtags like #bluewhalechallenge, #curatorfindme, #i\_am\_whale are seen as signals from and for the anonymous curators.
- Philipp Budeikin is behind Blue Whale which is aimed at children and police fear is spreading all around the world.

APK (Android Package) file is a file format which is created by Google. This format is one of the group members of Executable Files (similar to EXE, MST, AIR). APK file extension is in the Open Handset Alliance which is a mobile phone platform based on Linux.

### 4.7. India Permitted To Construct Kishenganga And Rattle Project



#### About The Issue

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- In 2016, Pakistan had raised objections to construction of two hydropower projects named Kishanganga on Indian side of River Jhelum's tributary and Rattle on Indian side of River Chenab stating that these projects contravened the Indus Water Treaty.
- Pakistan is worried that the project will have adverse impacts on the flow of the river, which flows into their country and meets with the Jhelum River. Pakistan is constructing the Neelum-Jhelum Hydropower Plant downstream of the Kishanganga.
- The Pakistani government approached the World Bank in September 2016 saying that the design of the Kishanganga project was not in line with the criteria laid down under IWT and sought the appointment of a court of arbitration.
- Pakistan had asked World Bank to facilitate the setting up of a Court of Arbitration to look into its concerns about the two hydroelectric power project whereas India had asked for the appointment of a neutral expert to look into the issues contending the concerns Pakistan raised were technical ones.

### Current Status

- After the secretary level talks between India and Pakistan with the mediation of World Bank, India is permitted to construct hydroelectric power facilities on tributaries of the Jhelum and Chenab rivers with certain restrictions.
- India and Pakistan have concluded the water negotiations in a bid to avoid further tensions over the sharing of river water.
- The meeting was part of the World Bank's efforts to resolve a dispute over the Kishanganga and Rattle hydroelectricity projects being built by India in Jammu and Kashmir.
- The two countries disagree over whether the technical design features of the two hydroelectric plants contravene. The treaty the World Bank said the IWT designates these two rivers as well as the Indus as the Western Rivers to which Pakistan has unrestricted use.
- Among other uses, India is permitted to construct hydroelectric power facilities on these rivers subject to constraints to the treaty.

### About Indus Water Treaty



- The water-distribution treaty between India and Pakistan signed in on September 19, 1960, gave

Pakistan the exclusive right to use waters from the Indus and its westward flowing tributaries, the Jhelum and the Chenab. However, Jammu & Kashmir was allowed to use some water from these rivers for hydropower generation, domestic use and agriculture.

- The IWT gave India the control over three eastern rivers—the Beas, the Ravi and the Sutlej. Since Pakistan's rivers flow through India first, the treaty allowed India to use them for irrigation, transport and power generation. It laid down regulations for Indian building projects along the way. Pakistan feared that, since the sources of rivers of the Indus basin are in India, it could lead to droughts and famines in its country, especially in times of war.
- The treaty also brought into existence 'Permanent Indus Commission' for resolving any future disputes relating to the treaty. Both, India and Pakistan have a Commissioner appointed to this Commission.

### 4.8. Sectarian Violence In Myanmar



#### In News

- Recently violence and tensions between Buddhist and Muslim communities have sparked in Myanmar's Rakhine State.
- Tens of thousands of Rohingya have fled the country and the UN estimates that around 1,20,000 Rohingya remain internally displaced in Rakhine.

#### Background

- The Rohingya, a highly persecuted Muslim group, face discrimination both from their neighbors and their nation and are not officially considered citizens by Myanmar's government.
- Buddhist nationalist groups including the anti-Muslim regularly call for boycotts on Muslim shops and the expulsion of Muslims from Myanmar and encourage attacks on Muslim communities.
- After waves of attacks, reprisals and riots in past years the atrocities against Rohingya intensified in 2012 due to their alleged involvement in case of kidnapping of police officer and gang rape incidents.
- Due to the century-old conflict in the predominantly Buddhist country, more than one hundred thousand Muslim Rohingyas have been made homeless and hundreds have been killed.

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- The displacement of the Rohingya has significantly increased tensions between Myanmar and its neighbors.
- Bangladesh's border with Myanmar's Rakhine state is sealed and heavily patrolled to prevent an influx of refugees. This situation is contributing to the increase of refugees who flee by boat or who cluster in refugee camps particularly those on the border with Thailand.
- Amnesty International documented wide-ranging human rights violations against the Rohingya during these operations including unlawful killings, arbitrary arrests, enforced disappearances, torture and ill-treatment, rape and other sexual violence, as well as destruction of homes and property.

### About The Current Issue

- The treatment of approximately 1.1 million Muslim Rohingya in mainly Buddhist Myanmar has emerged as the biggest challenge for national leader Aung San Suu Kyi, who condemned the raids in which insurgents wielding guns, sticks and homemade bombs assaulted 30 police stations and an army base.
- The Nobel Peace Prize laureate has been accused by some Western critics of not speaking out for the long-persecuted Muslim minority and of defending the army's counter offensive after the October 2016 attacks.
- Some 3,000 Rohingya arrived at the Naf river separating Myanmar and Bangladesh to prevent themselves from violent attacks but Bangladeshi border guards are turning them back.

### Rohingya In India

- According to the UNHCR, there are about 5,500 Rohingya refugees and asylum-seekers from Myanmar registered in India spread across the states of Andhra Pradesh, Delhi, Jammu, Haryana, Rajasthan and Uttar Pradesh.
- Most of these people are living in makeshift camps in India. Government of India's decision to provide the registered refugees with long term visa and work permit are still not in place.
- In the State of West Bengal more than thousand Rohingya people were prosecuted under the Foreigners Act, 1946 and sent to correctional homes. These people will be shifted to refugee camps only when these people get refugee status by the UNHCR.
- Though India and Bangladesh are not parties to the 1951 Convention Relating to the Status of Refugees, 1954 Convention Relating to the Status of Stateless Persons, and 1961 Convention Relating to Reduction of Statelessness, but they are party to several other important human rights instruments. These human rights instruments create obligation on both the States to provide with basic humanitarian treatment to these people.
- Indian intelligence agencies have found Pakistan's terror groups hiring Rohingyas from refugee camps, training and hiring them and there are allegations of Rohingya's involvement in Bodh Gaya bomb blast case in 2013. In this backdrop, the Indian government has decided to identify and deport Rohingya refugees.
- The home ministry has issued direction to the states to identify arrest and deport 40,000 Rohingya refugees. The members of the community and human rights organizations strongly condemned the plan as a clear violation of international law.

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- According to human rights body Amnesty International, it would be a blatant violation of India's commitments under international law since it would amount to sending the Rohingya community back to a place where they have faced horrific abuses.
- Amnesty also called upon India to sign and ratify the international Refugee Convention of 1951 as well as the 1967 Protocol Related to the Status of Refugees.
- Against the government's plan, a petition has been filed in the Supreme court by two Rohingya immigrants, who are registered refugees under the United Nations High Commission of Refugees (UNHCR) claimed they had taken refuge in India after escaping from Myanmar due to widespread discrimination, violence and bloodshed against the community there.
- The Supreme Court agreed to hear the plea against deportation of illegal Rohingya Muslim immigrants to Myanmar on several grounds, including violation of international human rights conventions.
- According to the human rights organizations the proposed deportation is also contrary to the constitutional protections of Article 14 (Right to Equality), Article 21 (Right to Life and Personal Liberty) and Article 51(c) of the Constitution of India which provides equal rights and liberty to every person.

### About Rohingya Issue

- The Rohingya are an ethnic Muslim minority group living primarily in Myanmar's western Rakhine state they practice a Sufi-inflected variation of Sunni Islam.
- The estimated one million Rohingya in Myanmar account for nearly a third of Rakhine's population. The Rohingya differ from Myanmar's dominant Buddhist groups ethnically, linguistically and religiously.
- The Rohingya trace their origins in the region to the fifteenth century when thousands of Muslims came to the former Arakan Kingdom.
- Many others arrived during the nineteenth and early twentieth centuries when Bengal and the Rakhine territory were governed by colonial rule as part of British India.
- The Rohingya are largely identified as illegal Bangladeshi immigrants, despite the fact that many Rohingya have resided in Myanmar for centuries.
- The Myanmar government refuses to grant the Rohingya citizenship status and as a result the vast majority of the group's members have no legal documentation, effectively making them stateless.
- Government policies including restrictions on marriage, family planning, employment, education, religious choice and freedom of movement have institutionalized systemic discrimination against the ethnic group.
- With no protection the Rohingya have been subject to decades of discrimination and violence in the western Myanmar state of Rakhine.
- For preventing themselves from violence and atrocities fled traveled to Southeast Asian countries including Malaysia, Indonesia and Thailand by boats via the waters of the Strait of Malacca and the Andaman Sea.
- The United Nations High Commissioner for Refugees estimates that 25,000 people have been

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taken to boats from January to March in 2015 by human traffickers.

- There are claims that while on their journey, around 100 people died in Indonesia, 200 in Malaysia and 10 in Thailand after the traffickers abandoned them at sea.

Q. Who are Rohingyas and what is the Rohingya crisis? Discuss the state of Rohingyas in India.



## 5. INDIA AND WORLD

### 5.1. India-Turkmenistan



#### In News

- The foreign Minister of Turkmenistan Mr. Rashid Meredov visited India on August 13-15, 2017.
- The delegation participated in the 6th Session of the India-Turkmenistan Inter-Governmental Commission (IGC) on Trade, Economic and Scientific& Technological Cooperation held on August 14, 2017.

#### Key Highlights Of The Visit

- The Commission expressed satisfaction at the current state of cooperation between the two countries and agreed to work towards fulfilment of the commitments reached during the meeting between the President of Turkmenistan and the Prime Minister of India during the latter's visit to Ashgabat in July 2015.
- Wide discussions were held of India's joining the Ashgabat Agreement that envisages establishment of International Transport and Transit Corridor between Central Asia and the Persian Gulf.

#### About Ashgabat Agreement

- Ashgabat Agreement is an agreement for *international transport and transit corridor* facilitating transportation of goods between Central Asia and the Persian Gulf.
- The agreement was initially signed among Uzbekistan, Turkmenistan, Iran, Oman and Qatar in April 2011.
- Kazakhstan and Pakistan have joined this agreement subsequently.
- The Ashgabat Agreement aims to develop shortest possible trade route between Central Asian countries and Iranian and Omani ports.
- The transit agreement provides for a transit corridor across Central Asia and the Middle East through the continuous landmass between Kazakhstan, Uzbekistan, Turkmenistan and Iran before reaching the Persian Gulf and into Oman.
- India has acceded to the Ashgabat Agreement. India would become party to the Agreement after the consent of the founding members.

#### India- Turkmenistan Relations

- India enjoys close, friendly and historical ties with Turkmenistan. Turkman Gate built in Delhi in 1650's bears testimony to this friendship. Prime Minister Nehru visited Ashgabat (capital city of Turkmenistan) in June 1955.

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- As per the Constitution of the country, Turkmenistan is a democratic and secular state. The country's status of Permanent Neutrality (A permanently neutral country by virtue of the international treaty is under a legal obligation to not to participate in any future war) has been approved by a UN General Assembly Resolution in 1995. India was a co-sponsor of the Resolution.
- There is a remarkable similarity between the NAM and the idea of Neutrality as the fundamental objectives of both is establishment of world peace.
- India and Turkmenistan enjoy cordial bilateral political relationship and Ashgabat supports India's permanent position in the U.N. Security Council.
- India -Turkmenistan relations are yet to translate into deeper economic engagement.

### Energy Security

- Turkmenistan is endowed with rich reserves of natural gas, crude oil, iodine, potassium and rock salts.
- It has the fourth largest natural gas reserves in the world including the world's second largest South Yolotan gas field. Being the richest country in natural gas in Central Asia and located in India's extended neighbourhood, Turkmenistan is important for India's energy security. Four countries, viz., Turkmenistan, Afghanistan, Pakistan and India (TAPI countries) are working together on a gas pipeline project.
- It also has significant reserves of crude oil. The country's key industries are state-owned.

### Cooperation In Science and Technology

- For enhanced cooperation in the field of Science and technology, India has offered to establish an *India-Turkmenistan Centre for Information Technology (ITCIT)* in Ashgabat for which details are being worked out in the Inter Governmental Commission's meeting.
- The draft of the Science and Technology Cooperation Agreement between these two countries is being discussed through proper channels.
- Both sides agreed to enhance the participation of Turkmen representatives in the courses organised by the Government of India within the framework of the Indian Technical and Economic Cooperation (ITEC) programme in the fields of Computer Technology, Financial Management, Urban Infrastructure Planning, Accountancy, Educational Planning and Management, Legislative activities, English language.
- The Government of India has set up an Industrial Training Centre in Ashgabat under the ITEC programme.
- It was decided to initiate joint research and studies related to seismic and earthquake problems, demineralization and desalination of water, and ecology of deserts and seas.
- Applications of solar energy, remote sensing, scientific instrumentation and technology transfer from research institutes to industries were considered as other potential areas of cooperation between the two sides.

### Cultural Cooperation

- India and Turkmenistan share ancient cultural ties. There is admiration for India and respect for India's rich cultural diversity in Turkmenistan.
- Indian films are very popular in Turkmenistan. Verses from Turkmen national poet Makhtamkuli are often quoted to eulogise India and India Culture.

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- To strengthen the cultural cooperation Government of India provides 8 scholarships every year under the General Cultural Scholarship Scheme. In addition one slot for learning Hindi in India is also allotted to Turkmen students.

### Strategic Importance of Turkmenistan

- India's Connect Central Asia policy 2012 envisages deeper mutual relations with the Central Asian region and energy linkage is an important component of the policy.
- India considers TAPI pipeline a key pillar in its economic relations with Turkmenistan. TAPI marks the first step towards achieving the vision of an economically integrated region stretching from the Bay of Bengal to the Caspian Sea. The pipeline is expected to be operational from December 2019.
- The lack of direct access through land to Afghanistan from India has been hampering closer economic engagement not only with Afghanistan but also with Central Asia. However with the recent inauguration of Turkmenistan-Kazakhstan-Iran railway line and Indian investments in Chabahar port, the connectivity issues have been addressed to an extent.
- India has also shown interest in joining the Ashgabat agreement which connects the countries of Central Asia (Turkmenistan, Uzbekistan and Kazakhstan) to West Asia (Iran, Oman and Qatar) and to the Indian Ocean.
- To further increase the connectivity with the region Turkmenistan is exploring the possibility to join the International North South Transport Corridor (INSTC). Turkmenistan is uniquely placed in the region linking Central Asian countries to South Asia through Afghanistan and to West Asia through Iran.
- Pursuing their mutual objectives of economic growth and stable neighbourhood India and Turkmenistan by deepening their partnership and understanding can help bring stability in Afghanistan and emerge as two nodes connecting the peoples and businesses of Central Asia and South Asia to bridge the divide created by colonial-era policies.

### About the TAPI Pipeline Project



- It is an 1800 km pipeline from Turkmenistan – Afghanistan – Pakistan – India (TAPI). It will transit 33 billion cubic meters (bcm) of Turkmenistan gas over 30 years.
- It will transport Caspian Sea natural gas from Turkmenistan through Afghanistan into Pakistan and then to India. The project is funded by the Asian Development Bank.
- India has to pay a transit fee to Pakistan and Afghanistan as the pipeline passes through these nations.

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- The pipeline will pass from the Dauletabad Oil fields in Turkmenistan and will move into Afghanistan along a highway running from Herat to Kandahar and it will then enter Pakistan via Quetta, Multan and from there to Fazilka (located at the Indo-Pak border) in India.

### Advantages of TAPI Project

- It would promote positive political and economic interaction between Afghanistan and Pakistan. Tensions between Afghanistan and Pakistan over trade and terrorism are high, but TAPI would provide good option for mutually-beneficial economic cooperation.
- TAPI could help improve relations between India and Pakistan as well, and it will reduce chances of armed conflict between these two nuclear powers. Joint support for TAPI could widen economic co-operation between two countries.
- TAPI has the potential to contribute to reconciliation in Afghanistan by creating economic opportunity for the Afghan people. It will lead to creation of job opportunities in the war-torn countries.
- Turkmenistan has the world's sixth largest reserves of natural gas. With further energy infrastructure investments, the country could become a major energy exporter. The more natural gas gets into world markets the more it is monetarily beneficial.
- TAPI would create good alternative to a proposed Indo-Pakistan-Iranian pipeline (IPI) which could help western powers maintain the economic pressure on Iran to end its nuclear weapons program.
- For India, gas can be used as an alternative to petrol hence it will help lessen India's dependence on oil and in turn it will improve India's energy security.

### Obstacles

- The planned route of the 1800 km pipeline will pass through 735 km of southern and western Afghanistan regions which are hotbed of terrorism. Further withdrawal of US troops has put a question mark on security aspects of the region.
- The pipeline will also pass through Pakistan's southwestern Balochistan Province, a region suffering from separatist and sectarian violence.
- Moreover poorly guarded oil/gas pipelines in the region have been vulnerable targets from terrorists.
- Any downturn in India-Pakistan relation can hamper TAPI project.
- The cost of the project is estimated to be 12 billion Dollars. Though Asian Development Bank is assisting the project but funding from other sources is required which is difficult because private players are doubtful about success of project.

Q. Evaluate India's Connect Central Asia policy in the context of India-Turkmenistan bilateral relations?

### 5.2. 8<sup>th</sup> Mekong-Ganga Cooperation Meeting

#### Key Highlights

- 8th Mekong Ganga Cooperation Ministerial Meeting was held in Manila, Philippines.

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- India has called for expanding the areas of cooperation among the member countries of the Mekong Ganga Cooperation (MGC) bloc to further deepen mutually beneficial partnership and cooperation.
- The leaders have shared the concept notes on formation of task forces on maritime connectivity and extension of (India-Myanmar-Thailand) trilateral highway into Cambodia, Laos and Vietnam.

### About MGC

- Both the Ganga and the Mekong are civilizational rivers and the MGC initiative aims to facilitate closer contacts among the people inhabiting these two major river basins.
- The Mekong-Ganga Cooperation (MGC) was launched in the year 2000 at Vientiane (*Vientiane* is the capital and largest city of Laos on the banks of the Mekong River).
- It is a multidimensional initiative among Cambodia, India, Laos, Myanmar, Thailand and Vietnam which deals with not just economic aspects of regional cooperation but a host of cultural issues important for building an inclusive and prosperous society.
- MGC member countries have been collaborating for regional cooperation in four areas such as tourism, culture, education, and transport & communications.

### MGC and India

- Civilisational and cultural links between India and the Mekong countries date back to thousands of years.
- MGC has received further momentum under the Act East Policy (AEP) of India, which was unveiled in 2014.
- Since the establishment of MGC, India's trade with Mekong countries has increased substantially. India's total trade with Mekong countries in the year 2000 was just a mere US\$ 1.32 billion which increased to US\$ 19.31 billion in 2015.
- Trade in goods between them has also witnessed transformation from trade in commodities to finished goods (pharmaceuticals) and intermediate products (automobile parts and components).
- India hosted the 8th MGC Meeting in New Delhi in April 2017. To restore the cultural and traditional textile affinities of the South and South East Asian region, an MGC Museum of Asian Textiles has been established in Siem Reap, Cambodia in 2014.
- Another milestone in Mekong Ganga cooperation is the revival of Nalanda University.
- India has announced several scholarships for MGC countries in areas of culture, tourism, engineering, management, teachers training, film directing, sound, lighting and stage management in addition to over 1000 scholarships already given every year.
- Development cooperation has facilitated the expansion of economic and cultural relations in Mekong subregion. India has extended over US\$ 1 billion Line of Credits (LoC) to CLMV countries in recent years, bulk of which has gone into Myanmar, followed by Vietnam and Lao PDR.
- The types of development cooperation can be aggregated in India-Mekong relations as follows :
  - Physical and digital connectivity (e.g. Trilateral Highway, Kaladan Multimodal Transit Transport Project, digital links, etc.),
  - People-to-people connectivity (e.g. scholarships and fellowships, restoration of temples, visual and performing arts, etc.),
  - Science and technology (e.g. satellite launching),

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- Training and capacity building (e.g. EDI centres, language training centres, etc.),
- Business and networking (e.g. SMEs cooperation, business fairs, etc.).

### Challenges And Way Forward

- Both India and Mekong countries have substantially high untapped trade potential which has remained unrealised due to:
  - Barriers to trade
  - Structural differences of the economies, among which some are intuitively policy barriers (such as tariff and non-tariff measures, etc.),
  - A large part of the barriers are also related to environment such as remoteness and low connectivity, inadequate banking and financial instruments, unfavourable business environment, etc.
- A stronger coordination between MGC and India will be helpful in building crossborder connectivity.
- To a great extent missing rail and road links in Myanmar is hindering the overland connectivity between India and Southeast Asia. Therefore average road conditions and the railway system inside Myanmar need to be improved and upgraded.
- Extension of Trilateral Highway (TH) to Mekong countries, direct air links, completion of ongoing connectivity projects, maritime links with Cambodia and Vietnam are some of the projects which would take the cooperation between India and Mekong to a new plateau.
- Mekong is the most prominent case where countries have successfully transformed borders into bustling place of economic activities. Border barrier has been declining in India's Northeast India in the present era of Mekong-Ganga Cooperation.

### 5.3. India-Sweden Agreement On IPR

#### Key Highlights

- Signing of MoU between India and Sweden on intellectual property right (IPR) cooperation was cleared at the Union Cabinet which aimed at benefiting entrepreneurs, investors and businesses.
- According to the agreement, a joint committee will be formed from both the nations to exchange the best practices, experiences and knowledge on IP awareness among the public, businesses and educational institutions of India and Sweden.
- The MoU will also cover cooperation in automation and modernisation projects, new documentation and information system in IP and procedures for management of intellectual property among various others.

#### Significance

- The MoU establishes a wide-ranging and flexible mechanism through which both the countries can exchange best practices and work together on training programmes and technical exchanges to raise awareness on IPRs and better protect intellectual property rights.
- The association of the two nations will improve protection and awareness about India's and Sweden's various intellectual creations.
- It will be a landmark step forward in India's journey towards becoming a major player in global Innovation and will further the objectives of National IPR Policy, 2016.

## Various International Treaties Related To Intellectual Property Rights

- **TRIPS(Agreement on Trade Related Aspects of Intellectual Property)**
  - It is a landmark and most comprehensive treaty on Intellectual property. Almost all countries are party to TRIP. In earlier treaties only limited countries participated.
  - While subject matters of earlier treaties were specific, TR IPS deal with 8 kinds of property rights – Patents, Trademarks, Copyrights, Industrial Designs, Plant Varieties, Integrated Circuits and layouts, and Geographical Indication.
  - The current treaty provides enforcement mechanism, which was not available in WIPO (World Intellectual Property Organisation) treaties. It mandated all member countries to make their domestic laws complaint to TRIPS.
  - India passed certain laws and amended others. India's IPR regime now stands fully complaint to TRIPS. India amended patent law in 2005 to provide product patent protection. Earlier protection was available only to processes.
- **Paris Convention for Industrial Property, 1883** – It deals only with Industrial property and covered only *Patents and Trademarks*. It was among first treaties to recognize various principles of international trade like National Treatment, Right of Priority, Common rules etc.
- **Berne Convention For Literary And Artistic Works, 1886** – It provided for copyright system. It doesn't provide for any formality to claim protection. Protection is automatically accorded to any creation, provided work is original and other conditions under the treaty are fulfilled. It means that one's work if original is already protected.
- **Madrid Agreement, 1881** – It governs the international recognition of trademarks and made international fillings easy and cheap.
- **Patent Co-operation Treaty, 1970** – It was earlier not possible for an entity to claim protection in different countries by single application. This was made possible as it aimed for co-operation and it was open for all parties to Paris convention.
- **Budapest Treaty of 1980** – It made possible patenting for micro-organisms. Claimant is required to deposit his invention on micro-organisms with an Authority – International depository of Micro-Organisms under WIPO (World Intellectual Property Organisation).
- **Trademark Law Treaty, 1994** – It harmonized administrative procedures and introduced service marks in ambit of trade marks. Earlier trademarks were accorded only to goods.
- **The Hague Agreement concerning the International Deposit of 'Industrial Design' 1925** – It created International Design Bureau of WIPO.
- **International Union for Protection of New Varieties of Plants, 1961** – This provides breeders and farmers right to new plant varieties.

### National IPR Policy 2016

- The Union Cabinet has approved the National Intellectual Property Rights (IPR) Policy in May 2016 that shall lay the future roadmap for IPRs in India.
- The policy recognises the abundance of creative and innovative energies that flow in India and the need to tap into and channelize these energies towards a better and brighter future for all.
- The policy lays down the following seven objectives:
  1. **IPR Awareness:** Outreach and Promotion- Generation of IPRs: To create public awareness

about the economic, social and cultural benefits of IPRs among all sections of society;

2. **Generation of IPRs**- To stimulate the generation of IPRs;
  3. **Legal and Legislative Framework**: To have strong and effective IPR laws, which balance the interests of rights owners with larger public interest;
  4. **Administration and Management**: To modernize and strengthen service-oriented IPR administration;
  5. **Commercialization of IPR**: Get value for IPRs through commercialization;
  6. **Enforcement and Adjudication**: To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements;
  7. **Human Capital Development**: To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs;
- The Department Of Industrial Policy And Promotion (DIPP) will be the nodal agency for all IPR issues. Copyrights related issues will also come under DIPP's ambit from that of the Human Resource Development (HRD) Ministry.

### **Significance**

- Increased awareness
- Perception management through legal, administrative and institutional management.
- It will help in reducing the time taken on clearing the backlog of IPR applications from current 5 to 7 years to 18 months by March 2018 as stated by the goals of the policy.
- Reviewing of provisions in every five year will help the Indian IPR-ecosystem to update and improve them or to remove anomalies and inconsistencies.
- It will promote incorporation of globally best practices and will be helpful in promotion of R&D through tax benefits.

### **Criticism**

- It is driven by the agenda of IP maximalism where owner's rights will be maximized at the cost of public interest.
- Intellectual Property rights accelerate innovation in certain sectors/technology but impedes innovation in other sectors. This policy fails to take notice of this and hence lacks integrated approach.
- Criminalising what is essentially a civil wrong is too much, not to mention the potential for abuse at the hands of our police.
- Although the policy seeks to promote & develop the IP field to ensure commercialization and expansion, but it does not address the specifics.
- It does not address the present condition of patent filing in the country and how do we improve that, while it does mention that most of the patents in the country are filed by foreign companies/investors.

### **Conclusion**

The policy seems to be a welcoming change but all depends on the way it is enforced. If the all the aspects mentioned in the policy are dealt with in a strict sense, keeping in mind the rights and interests of the indigenous innovators, the policy can change India's stand in the world and foster

innovation to a great extent.

## 5.4. Visit Of Indian Minister Of Road And Transport To Iran

Minister of Road Transport, Highways and Shipping Shri Nitin Gadkari represented India at the inauguration of the second tenure of Dr. Hassan Rouhani as the President of the Islamic Republic of Iran on 5 August 2017.

### Key Highlights

- The visit has its significance to exhibit the strengthened India-Iran relations along with expediting the Chabahar transit project.
- During the visit the Indian minister has promised that the Chabahar transit route will be operational by next year.
- It has been realized by the Indian Road and Transport minister that a major push is needed to actualise the International North-South Corridor via Iran.
- Discussions were held regarding the Farzad-B gas field project for which the revised \$11 billion investment offer by ONGC Videsh is pending for a decision in Tehran.

### Chabahar Port



- Chabahar is located 72 kilometres west of Pakistan's Gwadar port. It holds immense strategic and economic significance for India. India has already constructed a 218 km long road from Delaram in western Afghanistan to Zaranj in the Iran-Afghan border to link up with Chabahar port.
- India wanted to build the port as it would significantly reduce transport costs and freight time to Central Asia and the Persian Gulf.
- The port is also central to India's efforts to circumvent Pakistan and open up a route to landlocked Afghanistan with which it has developed close political and economic ties.
- Japan which shares India's concerns about the growing economic and military strength of China is likely to partner with India on the development of the Chabahar port in Iran as well as an adjoining special economic zone. As part of the response to China's BRI (Belt and Road initiative) India and Japan are partnering in what they call the **Freedom Corridor** which would create new road, rail and shipping routes that would stretch from South East Asia to Sri Lanka, Iran and Africa.
- India has also proposed ambitious investment plans for Chabahar's development, including financing to build railways, roads and fertilizer plants.

### International North-South Transportation Corridor

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- Another major project is INSTC which would develop a network of ship, rail and road routes for moving goods over 7,000 km from India's western ports up to the Iranian port of Bandar Abbas.
- The INSTC was initiated by Russia, India and Iran in September 2000 to establish transportation networks among the member states and to enhance connectivity with the land locked region of Central Asia.
- The INSTC envisages movement of goods from Mumbai (India) to Bandar Abbas (Iran) by sea, from Bandar Abbas to Bandar-e-Anzali (an Iranian port on the Caspian Sea) by road and then from Bandar-e-Anzali to Astrakhan (a Caspian port in the Russian Federation) by ship across the Caspian Sea and thereafter from Astrakhan to other regions of the Russian Federation and further into Europe by Russian railways.

### Potential Of INSTC For India

- Need for a route to Russia, Central Asia and Europe which is shorter, cheaper, safer and well secured.
- If this corridor were linked with South East Asian Countries, its potential would increase manifold and will further supplement India's Act East policy.
- Would help India to bypass Pakistan and yet reach out to Central Asia and Russia.
- Will increase export competitiveness due to lower cost and less delivery time.
- Will provide impetus to regional cooperation and economic integration of the countries in the Eurasian region with Indian ocean and Persian Gulf.
- Already existing rail route between Turkey – Iran can help Indian goods to reach Turkey and beyond.

### Challenges

- This project does not have a strong mechanism and institution to address the operational issues on the ground.
- Absence of harmonization in custom procedures and documentation method is further creating obstacles.
- Issues related to funding of various infrastructure project under INSTC
- Low level of container trade along this route is creating a fear regarding cost recovery and hence it has not been able to attract significant private investment.
- Lack of common border crossing rule (the project runs through various countries)
- Security and fear emanating from Afghanistan

Q. Discuss the significance of Chabahar port, Iran which is being developed by India in the context of India's efforts to circumvent Pakistan and open up route to landlocked Afghanistan.

### 5.5. India-Somalia Agreement On Transfer Of Sentenced Person

#### Key Highlights

- India and Somalia signed a bilateral agreement for the transfer of sentenced persons.
- It is an important step in deepening humanitarian cooperation with India for transfer of sentenced persons.

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- The agreement will help Indian inmates imprisoned in Somalia or vice versa be near their families while serving the remainder of their sentence.
- Prior to 2004, there was no domestic legislation under which foreign prisoners could be transferred to the country of their origin to serve the remaining part of their sentence nor was there a provision for transfer of prisoners of Indian origin convicted by a foreign court to serve their sentence in India.
- Hence the **Repatriation of Prisoners Act, 2003** was enacted for achieving the above purpose. For achieving the objectives of the Act, a treaty/agreement is required to be signed with countries having mutual interest with us on this matter. The said treaty/agreement is required to be notified in the Official Gazette.
- The Government of India has signed similar bilateral Agreements on Transfer of Sentenced Persons with United Kingdom, Mauritius, Bulgaria, France, Egypt, Sri Lanka, Cambodia, South Korea, Saudi Arabia, Iran, Bangladesh, Brazil, Israel, Bosnia & Herzegovina, UAE, Italy, Turkey, Maldives, Thailand, Russian Federation, Kuwait, Vietnam, Australia, Hong Kong, Qatar, Mongolia, Kazakhstan, Bahrain and Estonia.

### Other Issues Discussed

- Both leaders discussed entire gamut of bilateral relations including the issue of piracy and maritime security. The Indian Navy has been involved in anti-piracy patrolling in the Gulf of Aden since 2008 and India is also a member of the UN Contact Group on Piracy off the coast of Somalia.
- Trade was also an important component of bilateral discussions. During 2014-15, India-Somalia trade was USD 391.05 million showing more than 51 per cent increase over the figure of USD 257.27 million during 2013-14. The leaders decided to increase the trade and unleash the untapped potentials of India-Somalia economic relations.
- They also discussed regional issues pertaining to developments in the Gulf region and India's neighbourhood.

### 5.6. India Bhutan New Trade Transit Agreement

#### In News

- India and Bhutan signed a new ten-year agreement on Trade, Commerce and Transit which provides for four more entry and exit points and simplifies procedures for import and export between the two countries.
- The Agreement was last renewed on 29<sup>th</sup> July 2006 for a period of ten years. The validity of this Agreement was extended with effect from 29<sup>th</sup> July 2016 for a period of one year or till the new agreement comes into force, through exchange of Diplomatic notes.

#### About The Agreement

- The new Agreement will further strengthen the bilateral trade relations between India and Bhutan.
- The Agreement provides for a free trade regime between the territories of India and Bhutan.
- The Agreement also provides for duty free transit of Bhutanese merchandise for trade with third countries.
- Four new entry and exit point - The two land routes are Phulbar (It is a road border crossing for vehicles and people on the India-Bangladesh border) and Dawki (*Dawki* or Dauki is a town in West Jaintia Hills district, Meghalaya, India) while the two sea and air routes are Mumbai and Chennai.

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- The Royal Government of Bhutan may henceforth impose such non-tariff restrictions on the entry into Bhutan of certain goods of Indian origin as may be necessary for the protection of industries in Bhutan. Such restrictions however will not be stricter than those applied to goods of third country origin.

### **India- Bhutan Commercial Relations**

- Mutually beneficial economic linkages between India and Bhutan have been an important element in our bilateral relations. India continues to be the largest trade and development partner of Bhutan.
- India is Bhutan's largest trading partner. A free trade regime exists between India and Bhutan.
- The India-Bhutan Trade and Commerce Agreement was first signed in 1972, which was last renewed in 2006 for a period of 10 years. The Agreement provides for duty free transit of Bhutanese merchandise for trade with third countries.
- Bilateral trade is conducted in Indian Rupees which is fully convertible to Ngultrum at par.
- Though Bhutan has an adverse balance of trade with India the balance of payment position with India ended last year with a surplus. Some years back, a Rupee shortage had led to severe compression of imports.

### **India-Bhutan Treaty of Friendship**

- The India-Bhutan treaty of friendship was signed in Darjeeling on August 8, 1949.
- The treaty commits both countries to cooperate closely with each other on issues relating to their national interests and not allow the use of their territories for activities harmful to the national security and interest of the other.
- According to the treaty the Government of the Republic of India and the Government of the Kingdom of Bhutan agreed on:
  - Reaffirming their respect for each other's independence, sovereignty and territorial integrity.
  - Recalling the historical relations that have existed between our two countries.
  - Recognizing with deep satisfaction the manner in which these relations have evolved and matured over the years into a model of good neighbourly relations.
  - Being fully committed to further strengthening this enduring and mutually beneficial relationship based on genuine goodwill and friendship, shared interests, and close understanding and cooperation.
  - And having decided, through mutual consent, to update the 1949 Treaty relating to the promotion of and fostering the relations of friendship and neighborliness between India and Bhutan.
- India re-negotiated the 1949 treaty with Bhutan and signed a new treaty of friendship in 2007. The new treaty replaced the provision requiring Bhutan to take India's guidance on foreign policy with broader sovereignty and not require Bhutan to obtain India's permission over arms imports.

### **5.7. Nepal's Prime Minister Visited India**

Prime Minister of Nepal, Mr. Sher Bahadur Deuba paid his first official state visit to India from 23<sup>rd</sup> to 27<sup>th</sup> August 2017 after assuming office in June 2017.

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### Key Highlights Of The Visit

- During the visit the two Prime Ministers reaffirmed their commitment to work towards strengthening bilateral relations on the basis of mutual trust, goodwill, mutual benefit, with due regard to each other's aspirations, sensitivities and interests.
- Both the leaders expressed satisfaction on the functioning of the *Oversight Mechanism* established in 2016 and the progress made through the mechanism in resolving bottlenecks and speeding up implementation of ongoing projects under bilateral economic and development cooperation.
- The two Prime Ministers urged a constructive pursuit of a forward-looking development agenda wherein each country could learn from and contribute to the social and economic initiatives of a transformative nature. Towards this objective it was agreed to initiate an annual policy dialogue between the NITI Aayog of India and the National Planning Commission of Nepal.
- Recognising the importance of rail links in India-Nepal connectivity the early completion of the Field Location Survey of remaining three cross-border rail links (a) New Jalpaiguri to Kakarbhitta (b) Nautanwa to Bhairahawa and (c) Nepalganj Road to Nepalgeedunj has been agreed.
- The two PMs welcomed award of work of Integrated Check Post (ICP) at Biratnagar and directed their respective officials to pursue its construction and operationalize ICP Birgunj by Dec 2017.
- A Joint Working Group on cooperation in oil and gas sectors has been set up which would consider advancing cooperation in areas such as (a) construction of LPG pipeline from Motihari to Amlekhgunj (b) construction of Natural Gas pipeline from Gorakhpur to Sunwal; c) assistance of IOCL for preparing DPR for extension of Petroleum Products pipeline from Amlekhgunj to Chitwan in Nepal.
- The two Prime Ministers jointly inaugurated the Kataiya (India)-Kusaha (Nepal) and Raxaul (India)-Parwanipur (Nepal) cross-border transmission lines which would enable additional 100 MWs of power supply from India to Nepal.
- Noting the positive and productive discussion on the Pancheshwar Multipurpose Project, both the leaders directed the concerned officials to finalize its Detailed Project Report within a month.
- During the visit, various MoUs were signed which includes Implementation of the Grant Component of India's Post-Earthquake Reconstruction Package in the Education Sector, Cultural Heritage and Health Sector in Nepal; Modalities for Utilization of India's Housing Grant Component to support Reconstruction of 50,000 Houses etc.

### India-Nepal relations

#### Historical Ties

- India and Nepal share a unique relationship of friendship and cooperation as close neighbours, characterized by open borders and deep-rooted people-to-people contacts of kinship and culture. There has been a long tradition of free movement of people across the borders.
- Signed in 1950 the India-Nepal Treaty of Peace and Friendship forms the bedrock of the special relations that exist between India and Nepal. Under the provisions of this Treaty, the Nepalese citizens have enjoyed unparalleled advantages in India, availing facilities and opportunities at par with Indian citizens. Nearly 6 million Nepali citizens live and work in India.

#### Developmental Cooperation

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- Government of India provides substantial financial and technical development assistance to Nepal, under which various projects have been implemented in the areas of infrastructure, health, water resources, education and rural & community development.
- In recent years, India has been assisting Nepal in development of border infrastructure through upgradation of roads in the Terai areas; development of cross-border rail links at Joggan-Biratnagar, Jaynagar-Bardibas, Nepalganj Road-Nepalganj, Nautanwa-Bhairawa, and New Jalpaiguri-Kakarbhitta; and establishment of Integrated Check Posts at Raxaul-Birgunj, Sunauli-Bhairawa, Joggan-Biratnagar, and Nepalganj Road-Nepalganj.
- Large projects such as Pancheshwar hydro power project, construction of a National Police Academy at Panauti, Nepal Bharat Maitri Pashupati Dharmashala at Tilganga, a Polytechnic College at Hetauda, and the National Trauma Centre at Kathmandu are at various stages of implementation.
- Government of India's Small Development Projects (SDPs) programme in Nepal extends assistance for the implementation of projects costing less than NRs 5 crore in critical sectors such as health, education & community infrastructure development.

### Major Drawback Of India Policy Towards Nepal And Way forward

- Earlier political establishments in Nepal had often raised concerns about India's intervention in Nepal's domestic politics. The recent difference has occurred on the question of constitution and democratic representation of politics (Madhesi's issue).
- A peaceful and stable Nepal has a bearing on India as well because of the long and open border shared between India and Nepal. So there are no questions over the intentions of India but its actions are sometimes perceived to its "**Big Brother attitude**" and hence felt as dominating and interfering.
- Another issue is on the question of **Chinese ingress into Nepal politics**. India and China both are vying for influence in Nepal.
  - India is likely to offer better access to its ports to Nepal, on the other side China had gained a foothold by rapidly building roads and railway links (Tibet to Nepal rail link).
  - China completed laying an optical fiber to Kathmandu, creating a direct link to Hong Kong Data Centre which is one of the two biggest global data centres in Asia.
  - China also just inaugurated the first transport service to Nepal, a rail-bus, 10-day journey from Lanzhou to Kathmandu. And a joint Nepal-China researcher team has begun hydrocarbon (petroleum and natural gas) exploration in Nepal.
- At the time of blockade, Nepal has improved its relation with China, the only other country besides India with which Nepal shares a border. There is a feeling in Kathmandu that if Nepal does not diversify its trade away from India—with which it now does 70 % of its business—it could again be made a victim of India's high-handedness in the future. This explains Nepal's tilting toward China to balance India's influence.
- As China rises formidably across the Himalayas and is for the first time able to match its supportive statements with actual resources to reduce Nepal's reliance on India, Kathmandu will naturally be tempted to play off Delhi against Beijing. This changes the fundamental nature of India-Nepal relations and requires both sides to recalibrate their special relationship.

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- Prime Minister Sher Bahadur Deuba's visit to India marks the beginning of the process of balancing of Nepal's relationship with India and China. For balancing the relationship with India and China, Nepal adopted the approach of equidistance with both the nations (India and China).
- But the approach is not proving fruitful in contemporary situations. Kathmandu will have to resist the myth of equidistance between Beijing and New Delhi and realise that the imperatives of geography and an open border warrant an India first policy on key security matters.
- Prime Minister Deuba's decision to make India his first visit abroad and Kathmandu's reported willingness to consult with India first before signing on to China's Belt and Road Initiative (BRI) signals that Nepalese leaders are now committed to keeping India in the loop and thus preserve the special quality of the bilateral relationship.
- Also Beijing's current promises of support for Nepal will thus also come with a price. The cases of Myanmar and Sri Lanka since the 2000s reflect the Chinese modus operandi with all its devastating consequences as grandiose infrastructure projects quickly turned into liabilities for the host countries, increasing their debt and in turn allowing Beijing to convert its financial clout into political leverage.
- But both India and Nepal should strive for balanced foreign relations with neighbours. India should realize that one day or the other Nepal will establish relationship with China. So, India should shed its apprehensions about Nepal moving into the grip of China and act diplomatically in dealing with the issue.

### Steps India Should Take To Boost Indo-Nepal Relations

- As emphasised by Prime Minister Narendra Modi, India will have to focus on connectivity as a leverage to increase its strategic influence in the neighbourhood.
- While dealing with its smaller neighbours, India will have to abandon the archaic principle of right of first refusal and invest in expanding its capacity of first delivery.
- With China as a credible alternative whether to invest in infrastructure, hydropower or military modernization, Nepal no longer needs to wait for India. Delhi will have to get used to Kathmandu's new first-come, first-served principle.
- India must abstain from overreacting to China's inroads into Nepal. While it is natural that the Indian attitude will harden at the immediate prospect of rising Chinese influence, New Delhi must take a relaxed view because in the longer run the imperatives of geography, cultural affinities, international politics will bring home to our neighbors the facts of life and of real politics.
- More than defining what Nepal should not do, New Delhi will have to communicate such expectations more clearly.
- India will have to balance its moves towards Nepal in such a way that voices of Nepalese nationalist rallying against India are addressed in a constructive manner.

## 6. SUMMITS AND ORGANISATION

### 6.1. 15<sup>th</sup> BIMSTEC Meet

The 15th edition of Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) ministerial meeting was held in Kathmandu, Nepal.

#### Key Highlights

- The member nations agreed to intensify the collaborative efforts to realise the aims and purposes of BIMSTEC and pledged to make BIMSTEC stronger, more effective and result oriented.
- The leaders recognized the paramount importance of early conclusion of **BIMSTEC Free Trade Area** and directed the Trade Negotiating Committee and Working Groups to expedite the finalization of its constituent Agreements.
- Regarding **climate change**, BIMSTEC member nations committed to implement the Paris Agreement on Climate Change and welcomed the offer of the Government of Bangladesh to convene the BIMSTEC Experts Workshop on Climate Change.
- The MoU on the Establishment of the **BIMSTEC Grid Interconnection** was readied for final approval and signature.
- Recognizing the high potentials of energy sources in the region, particularly renewable and clean energy sources, it has been decided to expedite the collaborative efforts to develop a **Comprehensive Plan for Energy Cooperation** within the region.
- The leaders emphasized the importance of the **public health care** among the BIMSTEC Member States in holistic manner and the need to establish alliances for both traditional and non-traditional medicines. (Tele-medicine network has been launched by India to strengthen collaboration among premier medical institutions in the region.)
- The leaders agreed to expedite comments and observations on the BIMSTEC Framework Agreement on Transit, Transshipment and Movement of Vehicular Traffic (**BIMSTEC Motor Vehicle Agreement**) as well as the **BIMSTEC Coastal Shipping Agreement** with a view to negotiate and conclude these at the earliest.
- It was decided during the meeting that the Government of Bangladesh will host an **International Conference on Blue Economy** (it refers to marine-based sustainable economic development) in October 2017 to explore ways to deepen cooperation in areas of Blue Economy with the objective of holistic sustainable development of the region.

#### India-BIMSTEC

##### Significance of BIMSTEC for India

- The BIMSTEC connects three important sub-regions of India — Nepal and Bhutan in the Himalayan sub-region; Sri Lanka and Bangladesh in the Bay of Bengal sub-region; and Myanmar and Thailand in the Mekong sub-region. BIMSTEC is the only forum that brings together India's strategic peripheries (South, East and North) under one single grouping.
- The BIMSTEC not only serve as a bridge between South (SAARC) and Southeast Asia (ASEAN) but also effectively link the Bay of Bengal with the South China Sea via Andaman.
- It also keeps geopolitical concerns at bay as regional players such as China and Pakistan are not members of BIMSTEC.
- Multilateralism is the primary tool India is using to facilitate and improve its international relations. One of the cornerstones of India's strategy is to develop economically and technologically.

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- Some member countries are endowed with **rich hydrocarbon and hydropower potential**, which could be developed for the benefit of the region. India's energy needs can be met with the vast resources in the region
- In terms of **connectivity**, India- BIMSTEC has projects which could transform the movement of goods and vehicles through the countries in the grouping thus immensely benefiting India. The Kaladan Multimodal Project that seeks to link India and Myanmar; the Asian Trilateral Highway connecting India and Thailand through Myanmar; and establishment of a corridor for the Movement of Goods & Vehicles among the BBIN (Bangladesh, Bhutan, India, Nepal) nations are three such examples.
- The BIMSTEC will be a viable option for India to forge an effective regional group to promote **broader economic integration**. The objectives of economic and trade synergy can be fulfilled by taking measures for comprehensive FTA. This will lead to elimination of tariff and non-tariff barriers substantially in all trade goods, simplification of customs' procedures and development of mutual recognition arrangements, etc.
- BIMSTEC is an expression of India's Look East Policy of the 1990s coinciding with Thailand's Look West Policy.
- BIMSTEC could be a potential game-changer for the north-eastern India's quest for prosperity. The states of India's northeast have shown a marked economic vibrancy, with the region clocking economic growth of 10% a year which is faster than the country's average of about 5% a year.
- India has a trilateral maritime security initiative with Sri Lanka and Maldives that aims to enhance maritime security in the Indian Ocean. As all the BIMSTEC nations increasingly turn to the Bay's resources for economic development, India can propose a similar maritime security initiative with the BIMSTEC nations for **mutual maritime security** in the Bay.
- In **counterterrorism**, India has taken the lead in negotiations and the grouping is now close to finalising the BIMSTEC Convention on Mutual Legal Assistance in Criminal Matters and the Convention on Combating International Terrorism, Transnational Organised Crime, and Illicit Drug Trafficking was signed in 2009. In the current summit, the participating leaders have urged to expedite the process through early ratification.

### Contentious Issues Concerning BIMSTEC Nations

- India and Bangladesh have huge reservations over the Teesta water sharing dispute and over the refugees.
- Bangladesh and Myanmar also have ongoing problems in regard to the Rohingya Muslims as refugees.
- India and Sri Lanka continue to have friction on the fishermen issue.
- Domestic and economic compulsions of individual member countries also often discourage them from undertaking major trade and infrastructure plans as decided by the group.
- Therefore unless the group doesn't work in a comprehensive manner to assure a peaceful, stable and cooperative regional environment it will not be able to deliver on its plans.

### About BIMSTEC

Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organisation having Bangladesh, Bhutan, **India**, Myanmar, Nepal, Sri Lanka, Thailand as its member states.

## Evolution

- **BIST-EC** (Bangladesh, India, Sri Lanka, Thailand - Economic Cooperation) was formed at a meeting in Jun 1997 in Bangkok. Myanmar was admitted in Dec 1997 and the organization was renamed as **BIMST-EC**.
- The grouping expanded when Nepal and Bhutan were admitted in Feb 2004. The grouping's name was changed to **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) at 1<sup>st</sup> Summit Meeting held in Bangkok in July 2004.

## Functioning

- BIMSTEC organizes inter-governmental interactions through Summits, Ministerial Meetings, Senior Officials Meetings and Expert Group Meetings and through BIMSTEC Working Group (BWG) based in Bangkok.
- **BIMSTEC Chairmanship** rotates among member countries. Myanmar is Chair of the Group since Dec 2009 and took over from previous chair India (Aug 2006-Dec 2009). Currently Nepal has the chairmanship of BIMSTEC

## BIMSTEC Permanent Secretariat

- The BIMSTEC Permanent Secretariat is established in Dhaka, Bangladesh.
- India would be contributing 32% of the cost of Secretariat reflecting its strong commitment to BIMSTEC process.

Q. Multilateralism is the primary tool INDIA is using to facilitate and improve its international relations. Explain the above statement in terms of significance of BIMSTEC for India.

## 6.2. Global Liveability Report

### In News

- The Economist's Intelligence Unit released Global Liveability Report 2017 which ranks 140 cities across the world based on their quality of life.
- The concept of liveability assesses which locations around the world provide the best or the worst living conditions.
- Every city is assigned a rating of relative comfort for over 30 qualitative and quantitative factors across five broad categories: stability; healthcare; culture and environment; education and infrastructure.

### Key Highlights

- According to the report, global liveability has improved for the first time in a decade. This year's Global Liveability Ranking scores lifestyle changes in 140 cities worldwide. Some cities however have seen notable declines due to continued threat from global terrorism.
- Melbourne in Australia is the most liveable urban centre of the 140 cities surveyed, closely followed by the Austrian capital, Vienna.
- In Europe, cities have been affected by the spreading perceived threat of terrorism in the region.
- No Indian city was ranked in the top ten or bottoms ten. Though due to range of policy reform, India's economic outlook will remain broadly positive. The government will seek to re-establish India

preeminence in South Asia putting it at odds with China. Owing to shared strategic interests India's ties with the US, Japan and Vietnam will deepen.

- Interestingly, India with 53 per cent rating surpasses the USA (40 per cent) and China (49 per cent) in having the most positive influence on global affairs.
- Despite Indian government efforts such as Smart cities programme to improve the quality of life in cities, the Indian cities couldn't get any better place in the Global index.

### Economist Intelligence Unit

- The Economist Intelligence Unit (EIU) is the research and analysis division of The Economist Group and the world leader in global business intelligence.
- The Economist Intelligence Unit helps business leaders prepare for opportunity, empowering them to act with confidence when making strategic decisions.
- They are renowned for comprehensive global coverage and use the best analytical minds to examine markets, countries and industries with a level of insight

[Also refer Part 1 (May 2017) of CA magazine for city liveability index]

### 6.3. ICT Facts And Figures Report

#### In News

- ICT (Information, Communication and Technology) Facts and Figures 2017 report has been released.
- The report was released by **International Telecommunication Union (ITU)**, the United Nations specialised agency for Information and Communication Technology.
- The report estimates for key telecommunication/ICT indicators including data on mobile-cellular subscriptions, Internet use, fixed- and mobile-broadband services, household ICT access and more.

#### Key Findings Of The Report

- *ICT Facts and Figures 2017* report shows that great strides are being made in expanding Internet access through the increased availability of broadband networks.
- The report emphasized that the digital connectivity plays a critical role in bettering lives as it opens the door to unprecedented knowledge, employment and financial opportunities for billions of people worldwide.
- The new 2017 edition of ITU's *ICT Facts and Figures* reveals that mobile broadband subscriptions have grown more than 20 per cent annually in the last five years and are expected to reach 4.3 billion globally by the end of 2017.
- It demonstrates that ICTs continue to play an increasingly critical role in achieving the global Sustainable Development Goals (SDGs).
- The report highlighted that the proportion of young people aged 15-24 using the Internet (71%) is significantly higher than the proportion of the total population using the Internet (48%).
- The report revealed that there are societies that are hitherto untouched by the internet. Nearly 9 out of 10 young individuals not using the Internet live in Africa or Asia and the Pacific.

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- *Gender inequality* in the society is also exhibited in the usages of internet. The proportion of men using the Internet is higher than the proportion of women using the Internet in two-thirds of countries worldwide. The proportion of women using the Internet is 12% lower than the proportion of men using the Internet worldwide.
- The report emphasized that there is a strong link between gender parity in the enrollment ratio in tertiary education and gender parity in Internet use.
- The only region where a higher percentage of women than men are using the Internet is Latin America where the country also score highly on gender parity in tertiary education.

### About ITU

- ITU is the United Nations' **specialized agency** for information and communication technologies – ICTs. It has its headquarter in Geneva, Switzerland. The ITU has 193 Member States.
- The organization acts as a forum for governments and the private sector to coordinate technical and policy matters related to global telecommunications networks and services.
- It is responsible for allocating global radio spectrum and satellite orbits. It is also responsible for developments of the technical standards that ensure networks and technologies for seamless integration.
- The ITU is comprised of three sectors:
  - **Standardization Sector** - is responsible for the production of high-quality, internationally accepted mainly technical, telecommunication standards and related documents.
  - **Radio communication sectors** - coordinates the vast and growing range of radio-communication services as well as the international management of the radio-frequency spectrum and satellite orbits.
  - **Development sectors** – The mission is to raise the level of awareness of decision-makers concerning the role of telecommunications in national economic and social development; provide telecommunications policy advice etc. to promote telecom development.
- Each sector specializes in both technical and policy-related matters in their subject areas and is led by a director who reports to the ITU Secretary General and Deputy Secretary General.
- These officials are elected by the Member States once every four years at the ITU's Plenipotentiary Conference.

### **6.4. Digital Evolution Index**

The Fletcher School at Tufts University in partnership with Mastercard released the Digital Evolution Index 2017.

#### **Findings:**

- According to their overall digital evolution scores, Norway, Sweden, Switzerland, Denmark, Finland, Singapore, South Korea, the United Kingdom, Hong Kong and the United States make the top ten list of advanced digital economies.
- Combining the pace and state of digital advancement, the research puts markets into four distinct categories:

- **Stand Out** – Singapore, the United Kingdom, New Zealand, the United Arab Emirates, Estonia, Hong Kong, Japan and Israel demonstrate high levels of digital development while continuing to lead in innovation and new growth.
- **Stall Out** – Many developed countries such as in Western Europe, the Nordics, Australia and South Korea have a history of strong growth but their momentum is slowing. Without further innovation they are at risk of falling behind.
- **Break Out** – Though still at relatively lower absolute levels of digital advancement these countries demonstrate the fastest momentum are poised for growth and are attractive to investors. China, Kenya, Russia, India, Malaysia, Philippines, Indonesia, Brazil, Colombia, Chile and Mexico exhibit this breakout potential.
- **Watch Out** – Countries such as South Africa, Peru, Egypt, Greece and Pakistan face significant challenges, constrained both by low levels of digital advancement and a slow pace of growth.
- **The findings of the index revealed that the digital technology is widespread and spreading fast.** There are more mobile connections than people on the planet and more people have access to a mobile phone than to a toilet.
- According to the research cross-border flows of digitally transmitted data have grown manifold accounting for more than one-third of the increase in global GDP in 2014, even as the free-flow of goods and services and cross-border capital have ebbed in the aftermath of the 2008 recession.

### Findings About India

- On the Digital Evolution Index 2017 India has been categorised under the break out segment which refers to countries that have relatively lower absolute levels of digital advancement yet remain poised for growth and are attractive to investors by virtue of their potential.
- The report outlined that India has been experiencing rapid strides of progress with an evolving payments landscape, catalysed by the government's demonetisation decision.
- Indian government's endeavour such as Digital India programme to boost the acceptance infrastructure coupled with a host of other economic reforms has further hastened the momentum for the country's journey towards a cashless society.
- Adoption of digital payments has also witnessed a massive growth with a shift in behaviour change as more people adopt digital payments in daily life.

### 6.5. Mercosur Suspended Membership Of Venezuela

#### In News

- South American trade bloc Mercosur has suspended Venezuela indefinitely in a symbolic show of force following President Nicolás Maduro's decision to push ahead with an election for an all-powerful constituent assembly which critics fear will crush the democracy in the crisis-ridden nation.
- Its signatories agreed to eliminate customs duties, implement a common external tariff (CET) of 35 percent on certain imports from outside the bloc and adopt a common trade policy toward outside countries and blocs.
- The bloc is demanding the release of political prisoners and the launch of a political transition.
- Mercosur had already suspended Venezuela temporarily from the bloc in December 2016 for not complying with its regulations.

**For details on Venezuela crisis and MERCOSUR, please refer Part 3 (July 2017) of CA magazine.**

## **6.6. APEC Meet On Health And Economy**

7<sup>th</sup> Asia Pacific Economic Cooperation's high level meeting on health and economy was held in Ho Chi Minh City, Vietnam on 23<sup>rd</sup> August.

### **About The Meeting**

- During the meeting the leaders emphasized that Asia-Pacific faces challenges in human health and its population is ageing at a rapid pace. Hence an investment in health is an investment in development.
- The member nations reiterated that sharing policy successes and failures and applying lessons learned is critical to moving APEC member economies towards the common goal of a healthy Asia-Pacific.
- Recognising the importance of **Universal Health Coverage**, the leaders said that universal health coverage (UHC) is a specific target within the sustainable development goals (SDGs) and a platform that brings together programs and actions for health and development.
- Using available funds efficiently and strategically, arranging appropriate service delivery models, regulating health service quality and safety and empowering people and communities regarding health awareness are all needed on the pathway to UHC.
- APEC delegates discussed the issue of health financing reform for public health towards sustainable development with several member economies facing similar health financing issues such as over-budgeting and poor access to health in rural settings.
- The discussion also focused on measuring the progress of returning public investment in health and enabling alternative health financing mechanisms in the region.

### **About APEC**

- The APEC is a **regional inter-governmental economic forum** established in 1989 to leverage the growing interdependence of the Asia-Pacific.
- The criterion for membership is that the member must be a separate economy rather than a state. As a result APEC uses the term member economies rather than member countries to refer to its members.
- One result of this criterion is that membership of the forum includes Taiwan (officially the Republic of China participating under the name Chinese Taipei) alongside People's Republic of China as well as Hong Kong which entered APEC as a British colony but it is now a Special Administrative Region of the People's Republic of China.
- APEC also includes three official observers: ASEAN, the Pacific Islands Forum and the Pacific Economic Cooperation Council.
- APEC's **21 members** aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.

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- The 21 APEC member economies collectively account for more than half of world real GDP in purchasing power parity (PPP).
- APEC's vision are what are referred to as the '**Bogor Goals**' of free and open trade and investment in the Asia-Pacific by 2010 for industrialized economies and 2020 for developing economies. These goals were agreed by APEC Economic Leaders in Bogor, Indonesia in 1994.
- To achieve these goals APEC member economies developed a framework in Osaka, Japan in 1995, which set out three key areas of cooperation. Sometimes known as the '**Three Pillars of APEC**', these are the areas of Trade and Investment Liberalisation, Business Facilitation, and Economic & Technical Cooperation.

### APEC and WTO

- APEC and the WTO are complementary in that both are working towards the same goals of free and open trade and investment across borders.
- APEC operates on the basis of non-binding commitments, open dialogue and equal respect for the views of all participants. Unlike the WTO or other multilateral trade bodies, APEC has no treaty obligations required of its participants. Decisions made within APEC are reached by consensus and commitments are undertaken on a voluntary basis.

### APEC and India

#### **Why India wants to be a member?**

- APEC is the missing link in India's Act East policy because we are already heavily engaged with APEC countries.
- APEC economies offer vast market, nearly 60 % of global GDP; secondly, more than 50 % of global trade; and thirdly, on average % of global FDI flows, both in bound and out bound
- Inclusion in APEC might open the door for India's membership of Trans-Pacific Partnership (TPP).
- India, by not joining APEC soon, may progressively found itself increasingly removed from the norms of trade policy engagement across this wider region.
- APEC membership can help in attracting foreign investment at faster pace as outside the West Europe, most of the capital surplus nations are in Asia-Pacific.
- APEC mechanisms and best practices will help Indian officials and businesses become more competitive and better prepared for the changing global economy. Through its processes and guidelines, APEC will facilitate India's implementation of the economic reforms it needs to compete.

#### **Challenges to India's membership to APEC**

- In 1997 a moratorium on membership was put in place for a ten-year period. At the end of 2007 the moratorium was extended to 2010. Since 2012 moratorium was lifted.
- India's extra-regional status is a hindrance as APEC is essentially a group of 'Pacific' countries.
- The main impediment has been the opposition of some participants who have held India's record on economic reforms and WTO engagement to be unsatisfactory and unworthy of meritng inclusion as a member in the grouping.
- There is no financial cost to the United States for supporting India's APEC membership request. But there will be diplomatic costs: the membership moratorium closed the door after Russia, Vietnam, and Peru joined in 1998, so consideration of any new member spurs talk about the need for "balance" from all APEC regions, such as Latin America and Southeast Asia.

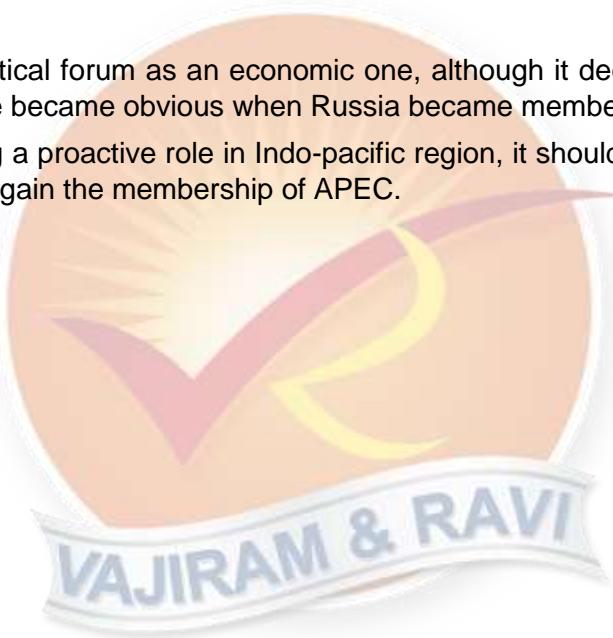
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### ***Reasons why India should become a member***

- A majority of members now believe that India must be brought into the fold for it has shown progress in reforming and liberalising its economy.
- Indian domestic or trade policy initiative such as a goods and services tax or land and labor reforms would signal the opening up of the market.
- India's maritime strength and strong strategic relations with the region's major powers, member states point out, could be used to bring strategic balance within the grouping.
- All but four APEC member economies already have, or are pursuing, trade agreements with India bilaterally or multilaterally, including China.
- India's accession to APEC would contribute to greater economic integration of the Asia-Pacific region at a time when emerging trade regimes could create gaps between the standards and policies adopted by their members and those pursued by nonmembers. By including a key economy such as India, APEC can play a constructive role by helping bridge such gaps.

### ***Conclusion***

- APEC is as much a political forum as an economic one, although it declares itself as an economic forum. Its political nature became obvious when Russia became member.
- Now that India is playing a proactive role in Indo-pacific region, it should not remain outside. It must take necessary steps to gain the membership of APEC.



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## 7. DEFENCE AND SECURITY

### 7.1. U.S. Designate Hizbul Mujahideen As Global Terrorist Organisation

#### In News

- The US Department of State has designated Hizbul Mujahideen as a Foreign Terrorist Organisation and a Specially Designated Global Terrorist group.
- A notification by the US Department of State declared Hizbul Mujahideen as one of the largest and oldest militant groups operating in Kashmir.
- The US Department of State notification seeks to deny the resources needed by the terrorist outfit to carry out attacks. The order provides a means to disrupt the financial support network for terrorist organizations by authorizing the US government to designate and block the assets of foreign individuals and entities that commit or pose a significant risk of committing acts of terrorism.
- The order further authorizes the US government to block the assets of individuals and entities that provide support, services or assistance to or otherwise associate with terrorists and terrorist organizations designated under the Order as well as their subsidiaries, front organizations, agents and associates.

#### Impacts

- Declaration of Hizbul Moujheedin as foreign terrorist organisation by the US will severely cut down the money inputs that terrorist organisation gets from various sources.
- It also serves as a clear message to Pakistan about US concerns over the state sponsored terrorists and terrorism.
- According to the notification the designation of the terrorist org. helps in assisting the law enforcement agencies and other governments to combat the menace of terrorism.

#### India's Response

- Indian officials said that the listing of the Hizbul Mujahideen as a global terrorist group is a logical step after the designation of Salahuddin as international terrorist.
- The issue is of key importance to India as it will validate cross-border terrorism as the reason behind the Kashmir issue and the support Hizbul Mujahideen gets from Pakistan.
- Prime Minister Narendra Modi flagged the issue of counter-terrorism cooperation with US Defence Secretary and U.S. President Donald Trump during his visit to America in June 2017.
- The US move will help India put the pressure on Pakistan whose leaders have sought to portray Hizb cadres as freedom fighters at a time of heightened terrorist activity in Kashmir.

#### About Hizbul Mujahiddin

- Hizbul Mujahideen is one of the largest terrorist organisations currently operating in Kashmir. It has a cadre base drawn from local and foreign sources.
- Hizbul Mujahideen was founded in September 1989 with Master Ahsan Dar as its head. Dar was arrested in mid-December 1993.
- Hizbul Mujahideen was formed as the militant wing of Jamaat-e-Islami, an Islamist organisation at the behest of Pakistan's ISI to counter Jammu and Kashmir Liberation Front (JKLF) which advocated total independence of Jammu and Kashmir. This was against Pakistan's open wish to take control of the State.

## 7.2. INS Aridhaman

### In News

- Indian Navy is planning to launch INS Aridhaman, India's second nuclear-armed submarine.
- INS Aridhaman is the second Arihant-class submarine. It is the second nuclear-powered ballistic missile submarine being built by India.
- It is being built under the Advanced Technology Vessel (ATV) project to build nuclear submarines at the Ship Building Centre in Visakhapatnam.
- Even though the same class as INS Arihant, it will feature 8 launch tubes instead of the 4 giving her double the firepower of Arihant. Thus it could carry 24 K-15 Sagarika short range SLBMs (Submarine Launched Ballistic Missile) or 8 K-4 long range SLBMs.
- INS Arihant was launched in 2009.
- INS Aridhaman is considered to be bigger ship than INS Arihant and a proper nuclear-powered ballistic missile submarine due to its ability to carry more ballistic missiles than its lead ship.
- INS Aridhaman will be fitted with the sonar ISS (Integrated Sonar Suite), state-of-the-art sonar developed by DRDO. It is a unified submarine sonar and tactical control system which includes all types of sonar (passive, surveillance, ranging, intercept, obstacle avoidance and active).

### Strategic Importance of Nuclear Submarines

- The Indian Nuclear Doctrine notes that India's strategic interests require an effective and **credible nuclear deterrent** with adequate capability. The nuclear submarines therefore provide the desired credibility and survivability of nuclear weapons.
- The nuclear submarines not only act as a survivable nuclear deterrent but add great power status to the Indian naval forces.
- Nuclear submarines confer an edge to a fighting force that conventional submarines find difficult to match. Because they are bigger, tougher, more heavily armed and longer-ranged than conventional submarines, it makes them indispensable assets.
- They can also perform functions that conventional diesel electric submarines generally cannot like cross an ocean underwater at high speed or remain submerged for weeks outside critical littoral spaces.
- The powerful weapons and sensors they host far outweigh the combat capabilities of conventional submarines.
- Submarines at sea are considered less vulnerable to detection due to their geographical and technical attributes. Accordingly, missiles on submarines offer the most survivable strategic nuclear force available to national decision-makers.

### Development Of Nuclear Submarines In India

- It was in the late 1970s that first time serious thought was given to the idea of the development of nuclear propelled submarines.
- The project was first conceived by Dr Rajaramanna, the former chairman of Bhabha Atomic Research Centre (BARC) Bombay.
- By 1987, India began to negotiate with the Soviet Union for the lease of a nuclear submarine.

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- In January 1988, a 670 A Skat series (Charlie class by NATO classification) nuclear submarine was acquired by the Indian Navy from the Soviet Union on lease.
- The vessel was commissioned as **INS Chakra** and was based at Vishakhapatnam. This 4,800 ton vessel was fitted with eight Ameist (SS-N-7 Starbright) anti-ship missiles with a range of 120 km, capable of carrying nuclear warheads.
- Eventually the Skat became not only the training ground for the Indian naval personnel but a design laboratory for developing and testing indigenous nuclear submarine technology.
- The indigenous effort to develop nuclear submarine was initiated in 1990's with the Indian Navy's Advanced Technology Vessel project.
- The initial intent of the project was to design nuclear-powered fast attack submarines. But following nuclear tests conducted by India in 1998 at Pokhran Test Range and the Indian pledge of no first use, the project was re-aligned towards the design of a ballistic missile submarine in order to complete India's nuclear triad.
- In 2009, India began the INS Arihant's construction which was finally launched in 2014.
- INS Aridhaman is India's second nuclear-armed submarine. It is a critical step towards strengthening India's strategic deterrence.

Q. India's strategic interests require an effective and credible nuclear deterrent with adequate capability. In the light of above statement explains the strategic importance of Nuclear submarines.

### 7.3. ICGS Shaurya

#### In News

- Indian Coast Guard ship Shaurya was commissioned in Goa by Union Minister for Petroleum and Natural Gas Dharmendra Pradhan.
- It is the fifth in the series of six 105-metre Offshore Patrol Vessels (OPVs).
- The ship is designed to carry one twin engine light helicopter and five high-speed boats including two quick reaction inflatable boats.
- The sustenance and reach coupled with the latest and modern equipment and systems provides it the capability to perform the role of a command platform and accomplish all Coast Guard charter of duties.
- The ship will be deployed extensively for EEZ (Exclusive Economic Zone) surveillance and other duties as enshrined in Coast Guard Charter to safeguard the maritime interests of India.
- The ship is designed for swift boarding operations, search and rescue, law enforcement and maritime patrol.
- The ship is also capable of carrying pollution response equipment to contain oil spill at sea.

#### About Indian Coast Guard

- The Indian Coast Guard is a multi-mission organization, conducting round-the-year real-life operations at sea.
- The organization is headed by the Director General Indian Coast Guard (DGICG) exercising his overall command and superintendence from the Coast Guard Headquarters (CGHQ) located at

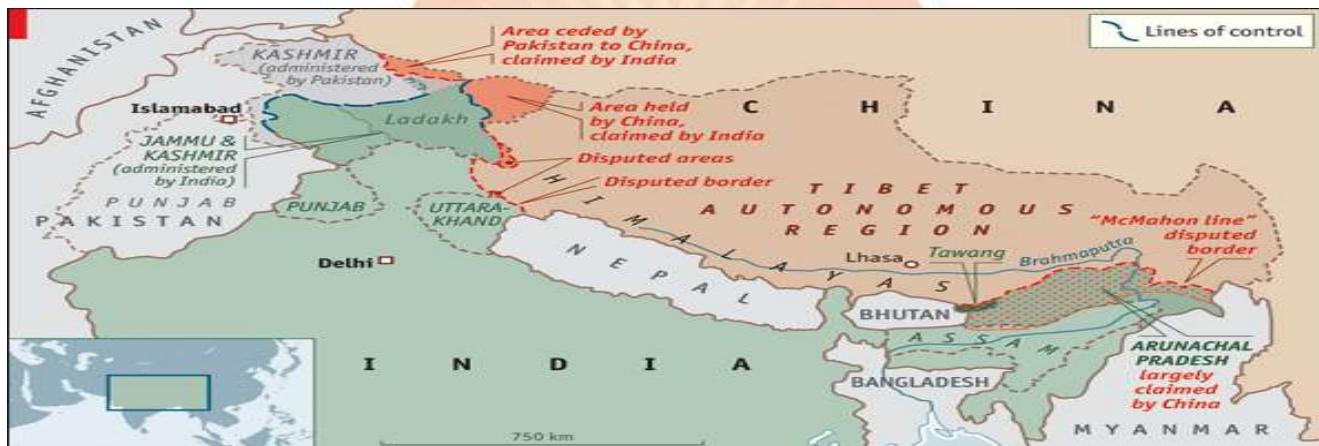
New Delhi.

- For effective command and control, the Maritime Zones of India are divided into five Coast Guard Regions namely, North-West, West, East, North-East and Andaman & Nicobar with the respective Regional Headquarters located at Gandhinagar, Mumbai, Chennai, Kolkata and Port Blair.

### **Functions:**

- Ensuring the safety and protection of artificial Islands, offshore terminals, installations and other structures and devices in any maritime zone.
- Providing protection and assistance to fishermen in distress while at sea.
- Preservation and protection of the maritime environment including prevention and control of marine pollution.
- Assisting the Customs and other authorities in anti-smuggling operations.
- Enforcement of Maritime Zones of India Act.
- Precautionary measures for the safety of life and property at sea and collection of scientific data.

### **7.4. Chinese Transgression In Ladakh**



### **In News**

- Amidst of Doklam standoff (at Sikkim border), Pangong Lake area in Ladakh became the flashpoint of standoff between the Indian and Chinese troops where soldiers from the two sides clashed on August 15.
- The soldiers of the People's Liberation Army (PLA) tried to enter the Indian side twice in two areas- Finger Four and Finger Five (These areas are almost 5 km into Indian territory from the line of actual control (LAC) manned by the Indo-Tibetan Border Police near pangong lake). But on both the occasions, their attempts were thwarted by alert Indian troops.
- After Chinese troopers found their path blocked by ITBP (Indo-Tibetan Border police) personnel, who formed a human chain, the Chinese troopers began hurling stones, prompting a swift retaliation by Indian border guards.

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- Personnel from both sides received minor injuries and the situation was brought under control after the customary banner drill under which both sides hold banners before stepping back to their respective positions.
- The Chinese troops had managed to enter upto Finger Four area in the region from where they were sent back. This area has been a bone of contention between India and China as both claim it to be a part of their territory.
- Pangong Tso, a brackish water lake located in the Eastern sector of the LAC, often witnesses tense Sino-Indian confrontations. While India claims it as its own, China staked claimed it as part of Aksai Chin in the 90s, after it built a track reaching its southern bank.

### Reasons For Rise In Chinese Transgression In India

- According to Home Ministry report, India has noticed that there has been a 20 per cent increase in transgressions by the Chinese along the border.
- Defence analysts said that there could be two reasons behind this. First is China is trying to aggressively posture itself along the border and other is the advancement in Indian defence apparatus due to which the spotting of such transgressions by the Indian forces has improved.
- China realizes that war may not be the best option and is trying to push in and occupy vulnerable and disputed areas.
- Some analysts also attribute the Chinese assertiveness to their desire to incrementally change the *status quo* to their advantage and set new thresholds through coercion. The Chinese behaviour in the past in dealing with Japan, Vietnam and Philippines lends credence to this theory. The Chinese make tactical withdrawal once confronted with a determined response.
- There could also be purely tactical reasons for such intrusions that is to assess the response of the Indian troops locally and for terrain reconnaissance.

Q. In the context of recent Chinese transgression in Indian borders explain the reasons for rise in such transgressions.

### 7.5. India's First Private Missile Production Facility

India's first private sector missile sub-systems manufacturing facility, Kalyani Rafael Advanced Systems (KRAS) plant, was inaugurated near Hyderabad.

#### About The Production Facility

- Israel's Rafael Defense Systems Ltd has formed a joint venture with Kalyani Group to produce anti-tank guided missiles for the Indian armed forces that are also likely to be exported to South-East Asian countries.
- It is 51:49 joint venture between India's Kalyani Group and Israel's Rafael Advanced Defence Systems Ltd.
- It has been established under the Make in India initiative and Government's policy to encourage private sector participation in defence production.
- The company is expected to supply components for the Israeli anti-tank guided missiles called Spike Missiles which will be integrated by Hyderabad-based public sector defence company Bharat Dynamics Limited (BDL) once the deal gets through.

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- Kalyani Strategic Systems Limited (KSSL) has emerged from being a traditional supplier of components and subsystems to Indian Defence to becoming a complete system and solutions provider.
- Rafael is one of the world's leading missile design and manufacturing companies offering products and systems for Anti-Tank Guided Missiles (ATGM), Surface to Air Missiles (SAM), Precision Weapons among other systems which are in service with several defence forces all over the world.
- This is the second joint venture factory with an Israeli company by Kalyani Group which recently announced setting up of artillery guns facility in Pune.

### Advantage Of The Facility

- The facility will be 90% localized and parts will be procured locally in Hyderabad. It will create about 300 direct jobs and 1,000 indirect jobs.
- The facility will enable production of high-end technology systems for Indian Armed Forces.
- It will be engaged in development of a wide range of advanced capabilities like Command Control and Guidance, Electro-Optics, Remote Weapon Systems, Precision Guided Munitions and System Engineering for System Integration.
- The facility will also target to export its products to other countries.

### Significance Of Promoting Domestic Private Players In Defence Production

- India's currently imports of defence equipments amounts to nearly 70% of India's total defence expenditure. India became the largest import of arms and ammunition between 2007 and 2011 which accounts for 10% of global arms imports despite having a robust defense PSU (39 Ordnance Factories (OFs), 8 Defence public sector units (PSUs) and 52 Research & Development laboratories.
- Govt. held defence companies have had better performance. However there is a huge technological/production output gap that exists between what the armed forces want and what can be offered/produced by the Govt held defence companies.
- India seriously needs to address this issue. One way is to allow private participation in defence sector.
- Allow these companies to achieve indigenously produce defence equipment and increase its share from present 30% to 70% in future which will help to create a robust defence manufacturing and R&D sector.
- As per CII-BCG report, if private sector is allowed in defence sector it will create jobs more than 1 million jobs.
- India will have access to modern technology through JV route between the private Indian firm and International defence firm.
- India will be immune to international sanction and whips of the foreign defence firm who resist transfer of latest technology.
- The coordination between public and private companies will create a culture of innovation among Indian firms. Along with that it will create a pool of talent (engineers & scientist) who would further the development of futuristic technology.
- Defence industry is highly technology driven and it is the private sector that adapts itself better to rapidly changing technology.

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- The private sector possesses business acumen to spot fleeting opportunities for long term survival and continued prosperity of their enterprise.

### Reasons Of Non-Participation Of Domestic Private Players

- There is a criticism that allowing the private sector to control the defence sector has altered political dynamics around the world. It has led to the rise of corporate cronyism, allowing unelected, rich business tycoons to have an unwarranted say in the foreign policy of a nation hence government is not promoting private players with full zeal.
- Regarding defence production the decisions are taken by the Defence Acquisition Council to categorise a proposal as 'Buy' or 'Buy and Make' or 'Make' based on the advice given by Defence Research and Development Organisation and the public sector. No inputs are sought from the private sector. Its competence and potential are given no consideration as of now.
- Requirements of the armed forces are not made known to the private sector sufficiently in advance with the result that it does not get adequate time either to go for foreign tie-ups or to establish the necessary facilities. The time given for the submission of technical and commercial proposals is grossly inadequate for a new entrant in the field.
- As Requests for Proposals (RFP) are issued to foreign original equipment manufacturers as well they prefer direct bidding. They decline joint ventures with Indian companies as it helps them to guard their technology and perpetuate their monopoly with consequent financial gains.
- Due to the very nature of its usage, defence equipment has to meet highly exacting standards. There can be no failure in the face of the enemy. Regrettably, many Indian vendors have not fully grasped the import of this requirement and find the quality control regime to be extremely tough.

### Conclusion

- The resurgence in Indian industry today offers scope for its greater involvement in the defence sector due to the availability of the requisite skills and infrastructure for undertaking defence production and even R&D in some fields.
- Over the last four decades, considerable resources have been invested in setting up our defence R&D infrastructure through which we have achieved enhanced capacities in the defence sector.
- India is also witnessing a significant growth in the private sector with many industries becoming global players. There has also been a shift in the role of the private sector entities in the field of indigenisation.
- From the role of suppliers of raw materials, components, sub-systems, they have now become partners and manufacturers of complete advanced systems.
- The government must concentrate on critical areas which best fit its existing human resource, technical capability and established capacity to take up new projects and must help the strengthening of domestic private players in the field of defence production.

Q. India became the largest import of arms and ammunition between 2007 and 2011 which accounts for 10% of global arms imports. In the light of above statement explains the significance of domestic private players in defence production.



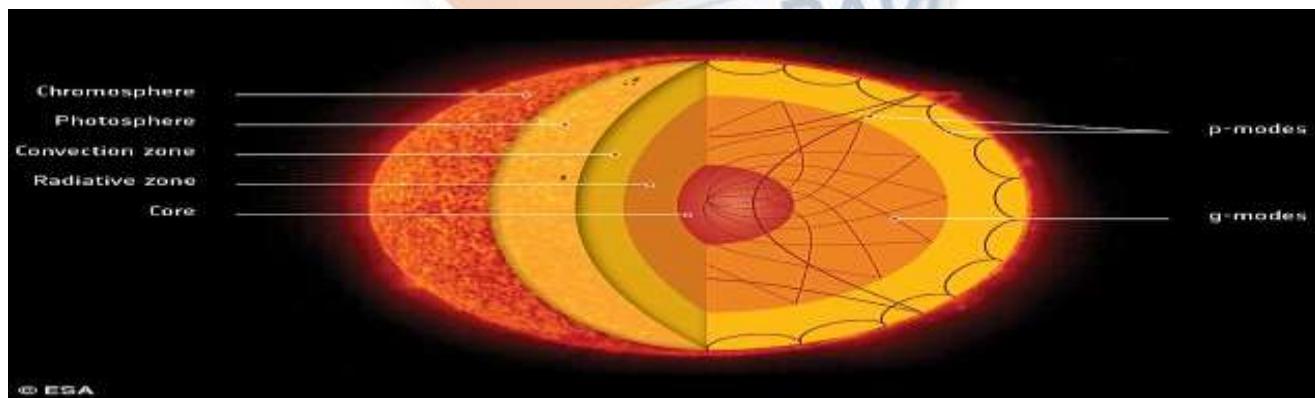
## 8. SCIENCE AND TECHNOLOGY

### 8.1. Chemical From Turmeric Treats Cancer In Children

- Scientists in the U.S. have found yet another use for curcumin, the bioactive component of turmeric. Researchers have found that nanoparticles loaded with curcumin can target and destroy neuroblastoma tumour cells. Children aged five or less are most commonly affected.
- The researchers attached curcumin to cerium oxide nanoparticles and tested the nano-curcumin formulation in cell lines of a high-risk form of neuroblastoma.
- Curcumin has been shown to have **substantial anti-cancer ability**, but its low solubility and poor stability have restricted its use in therapeutic applications.
- Curcumin is a bright yellow chemical produced by some plants. Chemically it is a **diarylheptanoid** belonging to the group of curcumins, which are **natural phenols responsible for turmeric yellow colour**.

### 8.2. Core Rotates 4 Times Faster Than Its Surface

- A team of global astronomers recently found that the Sun's core rotates near four times faster than its surface.
- European Space Agency and NASA's Solar and Heliospheric Observatory (SOHO), together, helped the solar scientists find **evidence of a type of seismic wave in the Sun. These waves are known as g-modes and are low-frequency waves**. These waves revealed that solar core is actually rotating four times faster than its surface.
- The solar physicists used helio seismology to study the Sun's interior structure by tracking the way waves move on the star. The most likely **explanation is that this core rotation is left over from the period when the Sun formed, some 4.6 billion years ago**.
- This finding is important as the Sun's core may give a **clue of how the Sun was formed**. The **rotation might also impact sunspots, which also rotate**.



### 8.3. Israel Launches Its 1st Environmental Research Satellite

- Israel has successfully launched its first spatial environmental research vehicle designed for orbital monitoring of Earth's vegetation.

- The **Venus satellite (Vegetation and Environment Monitoring New Micro-Satellite)** is an earth-observation micro-satellite designed jointly by Israel's agency and France's National Centre for Space Studies (CNES).
- Venus' launch took place on board an Ariane space Vega launcher from Kourou, French Guyana, in a joint project between ISA and France's space agency CNES. It will be inserted into a **near polar sun-synchronous orbit** at an altitude of 720 km with a two-day flyover revisiting time.
- The microsatellite, which weighed 265 kg on launch, will send high-resolution photos to track climate change and aid efforts to tackle desertification, erosion, and pollution.

### **8.4. IIT Delhi Researchers Develops New Nanotechnology-Based Drug Delivery System**

- An all-women team of researchers from **Indian Institute of Technology (IIT) Delhi** developed a new drug delivery platform using nanoparticles.
- The nanotechnology-based drug delivery system has the ability to boost the efficacy of antibiotics at the cellular level and improve chances of recovery.
- In traditional drug delivery system, if the bacterial infection in cancer remains untreated, it can infect the host even after the cancer cells are killed by chemotherapy. Similarly, conventional antibiotics suffer from issues like improper bio-distribution, poor water solubility, lack of target specificity, and loss of efficacy.
- In the **nanotechnology-based drug delivery system, a peptide called sushi-peptide was conjugated to gold nanoparticles**. The peptide in a free form may not be bioavailable as it gets degraded relatively fast.
- In a free form, the peptide is also not able to effectively kill the bacteria. An optimum number of peptides, that are bound to nanoparticles, are required to get the best results because when there are too few or too many peptides bound to the nanoparticles, the antibacterial activity gets compromised.

### **8.5. Astronomers Found Exoplanet With Glowing Water Atmosphere**

- Scientists have found an exoplanet named **WASP-121b**.
- WASP-121b is an extra solar planet orbiting the star WASP-121. It is the first exoplanet found to contain water in an extrasolar planetary stratosphere.
- It is **commonly referred to as a 'hot Jupiter'**. It has 1.2 times greater mass and 1.9 times greater radius than Jupiter.
- Scientists have detected glowing water molecules in the atmosphere of a planet outside our solar system, implying that the exoplanet has a strong stratosphere. This result is exciting because it shows that **a common trait of most of the atmospheres in our solar system -- a warm stratosphere** .
- We can now compare processes in exoplanet atmospheres with the same processes that happen under different sets of conditions in our own solar system.
- Scientists had used spectroscopy in order to study the exoplanet's stratosphere and to analyse how the planet's brightness changed at different wavelength.

## 8.6. Two New Species Of Cycas Discovered

- Research conducted on **Cycas pschannae**, a lone tree found in the Acharya Jagadish Chandra Bose Indian Botanic Garden, West Bengal has revealed two new species of cycas to the world.
- Initial studies on the lone tree revealed that it was **Cycas, a gymnosperm**, further research based on its morphological and anatomical characters led to the discovery of new species of **Cycas pschannae** and, later, **Cycas dharmrajii in the Andaman and Nicobar Islands**.
- The species were named after scientists Paramjit Singh Channa and Dharmraj S. Mishra.
- Cycas are one of the most ancient plants whose fossils date to the Jurassic period and are often referred to as “**living fossils**”. This discovery takes the number of Cycas species found in the country to 14.
- According to scientists, Cycas evolved on the earth as the first seeded plants and they grow very slowly, adding only a few centimetres every year.

## 8.7. Low Cost, Sensitive CO Sensor From IISc

- Indian Institute of Science researchers have developed a highly sensitive **nanometre-scale carbon monoxide sensor** by employing an innovative fabrication technique.
- Typically, a sensor would be a thin, current carrying plate whose resistance changes on exposure to carbon monoxide. This in turn changes the value of the current flowing through it. This change when measured indicates the level of carbon monoxide in the air.
- The nanometer-sized sensor was **made using zinc-oxide (ZnO) nano structure on a silicon wafer substrate**.
- This nanometre-scale CO sensor is able to detect a difference in CO level as low as 500 parts per billion (ppb). It can selectively respond to CO even in the presence of other gas.

### **Carbon Monoxide (CO)**

- CO is a **colorless, odorless gas**. It is harmful when inhaled in large amounts.
- The **greatest source of CO is** internal combustions (IC) engines of cars, trucks and other vehicles or machinery that burn fossils fuel.
- CO combines with hemoglobin to form a stable complex carboxy-hemoglobin. Hence CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain.

## 8.8. ISRO To Develop Full-Fledged Earth Observation Satellite

The Indian Space Research Organisation (ISRO) says it plans to launch a full-fledged niche Earth observation (EO) satellite — called **the Hyperspectral Imaging Satellite or HySIS** — using a critical chip it has developed.

### **About The Hysis Satellite**

- The satellite **can see in 55 spectral or colour bands from 630 km above ground**.
- It can be used for a range of applications from monitoring the environment, crops, looking for oil and minerals, military surveillance.

- The HySIS satellite has critical chip called an '**optical imaging detector array**' which has been indigenously developed by ISRO.
- The chip-set of the satellite for imaging has been designed by the payloads development centre, Space Applications Centre in Ahmedabad.
- ISRO, for first time, had tried out hyperspectral imaging technology in an 83-kg IMS-1 experimental satellite back in May 2008.
- The same year, it also had mounted hyperspectral camera on Chandrayaan-1 and used to map lunar mineral resources.

### What is Hyperspectral Imaging

- Hyperspectral imaging or hyspex imaging (imaging spectroscopy) **combines the power of digital imaging and spectroscopy**, collects and processes information from across the electromagnetic spectrum
- Hyspex' imaging enables distinct identification of objects, materials or processes on earth by reading the spectrum for each pixel of a scene from space.
- It has ability to add a new dimension to the usual optical imagers
- The hyspex technology is still very niche and evolving with time and in recent times, it has become trend that is being experimented with globally.

### 8.9. US Scientists Develop Micro propulsion System Based On Liquid Water

- Engineers from Purdue University in US have designed and tested a micro propulsion system called a **Film-Evaporation MEMS Tunable Array (FEMTA)** thruster that uses liquid water as the propellant for orbital maneuvering of tiny satellites called CubeSats.
- **The FEMTA system** uses an innovative design of small thrusters that deliver bursts of water vapor to maneuver the spacecraft into different orbits.
- It uses pure water as the propellant since it is safe, green, easy to use and free from the risk of contaminating sensitive instruments by the backflow from plumes as in the case of thrusters using chemical propellants.
- **CubeSats** are basically miniature satellites which typically weigh around two kilograms.
- In the future, they have potential to carry out tasks like imaging and remote-sensing currently performed by heavier satellites which are expensive to build and launch.
- CubeSats at present cannot totally replace their larger counterparts as they are incapable of changing orbit or performing complex manoeuvres as they do not have a propulsion system.
- If CubeSats would be having system that would allow such tiny satellites to correct their orbit or maintain their altitude, thereby prolonging their operating life in space before becoming space debris.

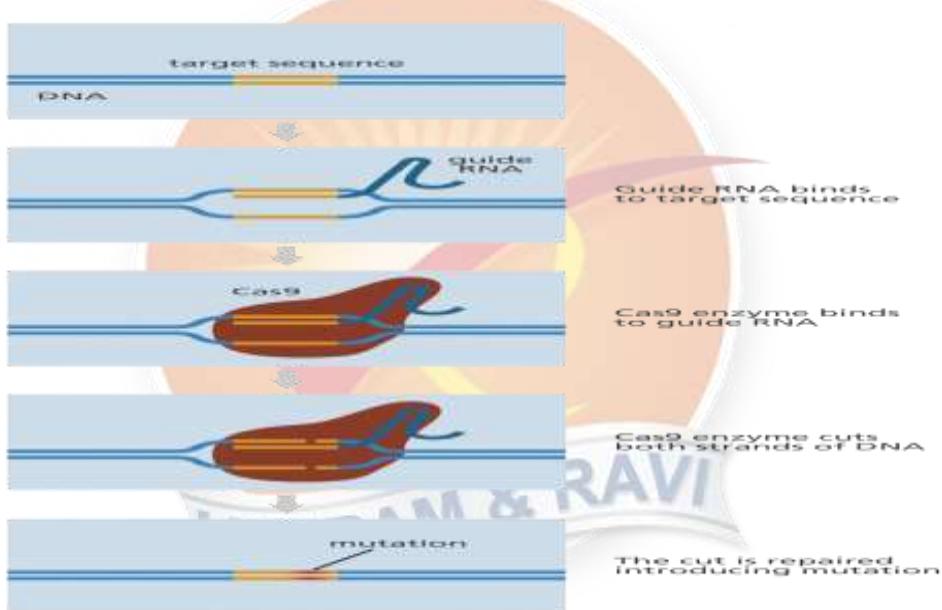
### 8.10. Human Embryos Edited To Stop Disease

- Scientists have, for the first time, successfully freed embryos of a piece of faulty DNA that causes deadly heart disease to run in families.

- The process named as **CRISPR**, was completed without introducing any harmful mutations, which was a problem in previous attempt. Its application in medical science are vast.

## What is CRISPR-Cas9

- CRISPR-Cas9 is a unique technology that enables geneticists and medical researchers to edit parts of the genome by removing, adding or altering sections of the DNA sequence.
- The CRISPR-Cas9 system consists of two key molecules that introduce a change into the DNA. These are:
  - An enzyme called Cas9.** This acts as a pair of 'molecular scissors' that can cut the two strands of DNA at a specific location in the genome so that bits of DNA can then be added or removed.
  - A piece of RNA called guide RNA (g RNA).** This consists of a small piece of pre-designed RNA sequence (about 20 bases long) located within a longer RNA scaffold. The scaffold part binds to DNA and the pre-designed sequence 'guides' Cas9 to the right part of the genome. This makes sure that the Cas9 enzyme cuts at the right point in the genome.



- The Cas9 follows the guide RNA to the same location in the DNA sequence and makes a cut across both strands of the DNA. At this stage, the cell recognises that the DNA is damaged and tries to repair it. Scientists can use the DNA repair machinery to introduce changes to one or more gene in the genome of a cell of interest.

## 8.11. CSIR-IGIB And NCDC Researchers Develop DNA Sensor For Quick Pathogen Detection.

- The researchers from CSIR Institute of Genomics and Integrative Biology (CSIR-IGIB) and National Center for Disease Control (NCDC), who have developed a ultrasensitive DNA chip-based sensor for quick pathogenic identification.
- Sensor can detect **S-pyogenes**, bacteria which has a wide range of diseases, in about 30 minutes. The traditional method identifies 18-24 hours of *S-pyogenes*.

- DNA chip based sensors have a carbon electrode embedded with gold nanoparticles. Through the study of bioinformatics, the researchers were able to investigate probes which are specific for *S. pyogenes*. The surface of the working electrode of the sensor is specifically linked to the many small-sized, single-stranded DNA probes for pathogen.

## **8.12. Scientists Develop World's First Plant-Based Zika Vaccine**

- US scientist have developed a plant-based Zika vaccine that could be more effective, safer, and economical to produce than other Zika medicines .
- The vaccine is developed using tobacco plant, which targets a key **protein called DIII**, which forms an envelope around the Zika virus and plays a vital role in helping the virus to infect people.

### **Significance**

- The plant protein-based vaccine uses smallest and most unique part of the Zika virus that can still elicit a potent and robust immune response.
- It produces a potent protective immune response against Zika Virus and also not produce antibodies that may be cross reactive for West Nile fever, Dengue, Yellow fever or others.

### **About Zika Virus**

- It is a member of the **virus family Flaviviridae**.
- It is spread by daytime-active Aedes mosquitoes, such as *A. aegypti* and *A. albopictus*.
- Its name comes from the Ziika Forest of Uganda, where the virus was first isolated in 1947.
- Zika virus is related to the dengue, yellow fever, Japanese encephalitis, and West Nile viruses. Zika virus is enveloped and has a non segmented, single-stranded, positive-sense RNA genome.
- People with Zika virus disease can have symptoms including mild fever, skin rash, conjunctivitis, muscle and joint pain, malaise or headache. These symptoms normally last for 2-7 days.
- The virus is capable of causing serious birth defects i.e. neurological disorders and foetal deformation known as **Microcephaly** in which infants are born with abnormally smaller heads.
- Besides a possible link between the virus and **Guillain-Barré syndrome** (a condition in which the body's immune system attacks part of the nervous system) is also suspected. It is also found that, sexual transmission of Zika virus disease is possible.

## **8.13. India's First Calf Born To Surrogate Cow In Pune**

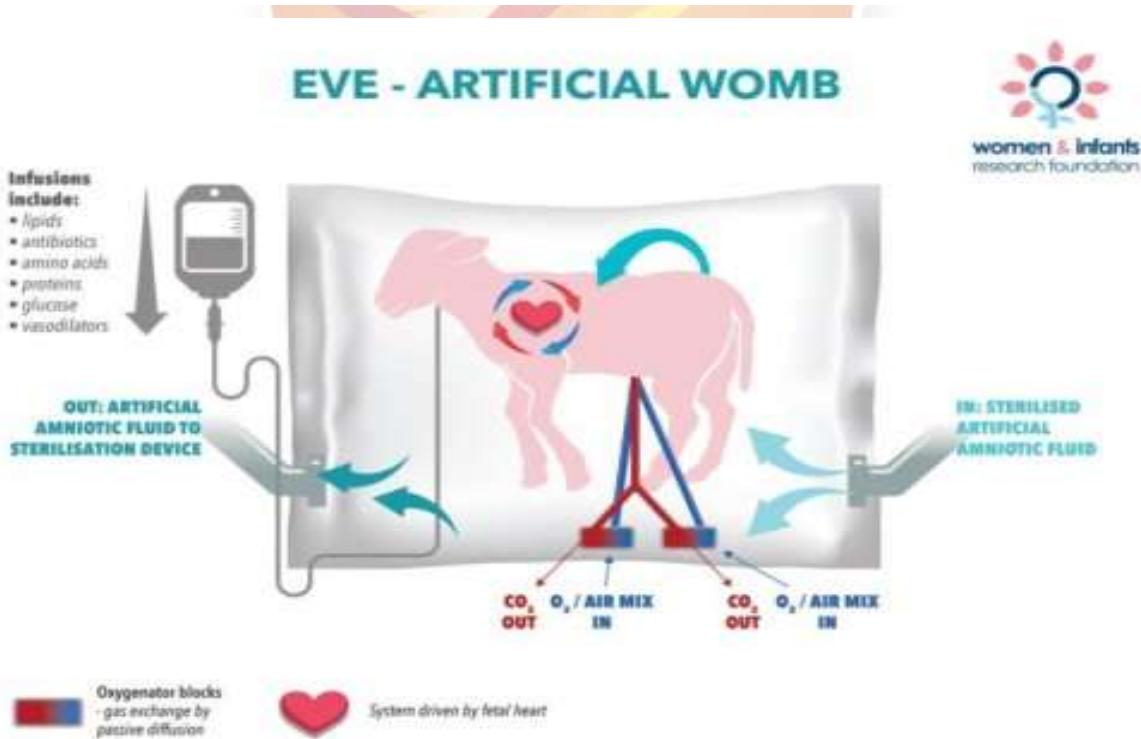
- India's first calf, delivered by a surrogate or recipient cow through In Vitro Fertilisation (IVF) technology carried out in a mobile laboratory, was born in Pune (Maharashtra). It has been named as **Vijay**.
- The purpose of producing surrogate calf was to protect indigenous cow breeds in its original form which have been destroyed due to cross-breeding.
- In Vijay's case, the donor cow belonged to the indigenous Gir breed, whose population across the country is around one lakh (unevenly spread across Gujarat, Maharashtra and Rajasthan).
- IVF or assisted reproductive technology (ART) is a process of fertilisation. In it, an egg is combined with sperm outside the body, in vitro (in glass or laboratory dish) to produce embryo. The embryo is then transferred to the uterus with the intention of establishing a successful pregnancy.

## 8.14. Microsoft Launches Project Brainwave For Real-Time Artificial Intelligence

- Microsoft unveiled its **Project Brainwave** deep-learning acceleration platform for real-time artificial intelligence (AI).
- Brainwave consists of a high-performance distributed system architecture; a hardware deep-neural network engine running on customizable chips known as **field-programmable gate arrays (FPGAs)**; and a compiler and runtime for deployment of trained models.
- Artificial intelligence is a sub-field of computer science. Its goal is to enable the development of computers that are able to do things normally done by people - in particular, things associated with people acting intelligently.

## 8.15. Artificial Womb Raises Hope For Premature Babies

- Scientists have developed an artificial womb that has been successfully tested to incubate healthy baby lamb for a week. The advanced technology may one day be used to save the lives of extremely premature human babies.
- The research showed that preterm lambs were successfully maintained in a healthy, infection-free condition with significant growth, for a period of one week using ex-vivo uterine environment (EVE) therapy. EVE therapy could prevent the severe morbidity suffered by extremely premature infants by potentially offering a medical technology that does not currently exist.
- The **equipment (artificial womb)** is a high-tech amniotic fluid bath combined with an artificial placenta.



## **8.16. NASA Successfully Launches Tracking And Data Relay Satellite-M**

- The National Aeronautics and Space Administration (NASA) has successfully launched Tracking and Data Relay Satellite-M (TDRS-M) into orbit.
- TDRS-M is third and final satellite in a series of the Tracking and Data Relay Satellite System (TDRSS), next generation communications satellites.
- The TDRSS is a fleet of geosynchronous communications satellites that form part of NASA's Space Network.
- The third generation TDRS will be functionally identical to the second generation TDRS with one major exception – beam forming. Multiple Access beam forming will be performed on the ground, unlike the second generation spacecraft which performs this function on-board.
- Like the first generation, this will allow for the unscheduled S-band DAS to be possible for low data rate use.

### **Tracking and Data Relay Satellite System (TDRSS)**

- A tracking and data relay satellite (TDRS) is a type of communications satellite that forms part of the Tracking and Data Relay Satellite System (TDRSS) used by NASA and other United States government agencies for communications to and from independent "User Platforms" such as satellites, balloons, aircraft, the International Space Station, and remote bases like the Amundsen-Scott South Pole Station.
- The current Tracking and Data Relay Satellite configuration consists of nine in-orbit satellites (**four first generation, three second generation and two third generation satellites**) distributed to provide near continuous information relay service to missions like the Hubble Space Telescope (HST), the International Space Station (ISS) etc.

## **8.17. Scientists Discover New Therapy To Prevent Sepsis In New Born Babies**

- A team of scientist headed by **Dr. Pinaki Panigrahi** has discovered an inexpensive prevention technique against sepsis. They found that feeding babies with probiotic bacteria dramatically reduces the risk of sepsis in new born babies.
- The team at university of Nebraska medical center college of public health has determined a special mixture of good bacteria that reduced incidence of sepsis in infant in India by 40% at a cost of only \$1 per infant.
- The special mixture included a probiotic called **Lactobacillus plantarum ATCC-202195** combined with **Fructo-Oligosaccharide(FOS)**.
- Probiotics are **friendly bacteria that live in the intestines**. Promoting healthy digestion and absorption of some nutrients, they act to crowd out pathogens, such as yeasts, other bacteria and viruses that may otherwise cause disease.

### **What Is Sepsis**

- It is a life threatening illness that is caused by body response to an infection. In this case the immune system goes into an overdrive in response to an infection. It is primarily caused by bacterial infection.

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- Other infections can trigger sepsis further. It is mainly caused by infection like pneumonia ,kidney infection, blood infection. It is more common in elderly people with weak immune system.

### 8.18. N.Bhupathi A Frog With The Face Of A Pig

- Indian scientists discovered **Nasikabatrachus Bhupathi**, a new species of frog that has a snout-shaped nose, just like a pig in West Ghats. It is soiled-dwelling species of purple frog.
- It inhabits the **eastern slopes of the Western Ghats**.
- Nasikabatrachus Bhupathi species show comparisons with the Purple Frog (*Nasikabatrachus Sahyadrensis*) which was discovered in 2003 in Seychelles.



- The discovery of such frog in Indian subcontinent is important because:
  - It is inhabitant of seychelles.
  - It gives evidence that Indian subcontinent was the part of ancient landmass of Gondwana before splitting from Seychelle, and thus the discovery **favours theory of continental drift**.

### 8.19. CSIR-NIIST Develop New Technique To Produce Bioethanol From Cotton-Stalks.

- The Scientists from National Institute for Interdisciplinary Science and Technology of CSIR (CSIR-NIIST) have developed new technology to make bioethanol from the discarded cotton stalks.
- The technology **uses a combination of chemical and biological techniques**.
- Changing agricultural residues such as cotton stalks and wheat and rice husks etc. reduces food versus fuel competition for ethanol.

#### Technique

- In the new technology, cotton stalks are first treated with acids, alkalis and several enzymes so that its complex organic polymers break down.
- Acid treatment removes the hemicelluloses (a polymer of the cell wall and alkali) which make easy to extract a compulsive matrix of the cell wall i.e. lignin composed of complex phenolics.
- These treatments expose the cellulose of cotton stalks made from glucose for the action of enzymes. Using a novel yeast strain, it converts glucose into final product bioethanol by process of fermentation. The novel yeast strain used is **Saccharomyces cerevisiae-RRP-03N**, obtained from the rotting wild fruit, we found in Silent Valley National Park, Kerala.

#### Bioethanol

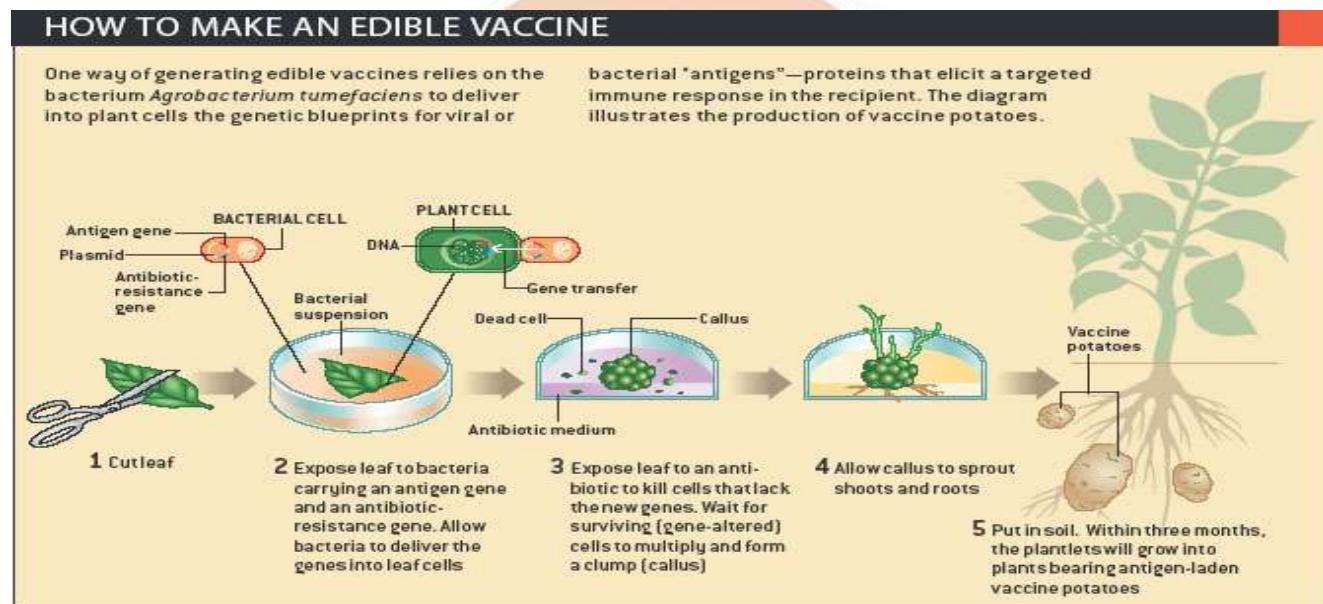
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- Bioethanol has a number of advantages over conventional fuels as it comes from a renewable resource. It is mandatory to blend 10% ethanol with petrol.
- Bioethanol presently in use is obtained by fermentation of sugar cane molasses, which is a byproduct of sugar production, and has food value. Most of this first generation ethanol finds its way into consumer applications, primarily as liquor.

### 8.20. Edible Vaccine

- The concept of edible vaccine is based on the concept of sub-unit vaccines.
- In this process, gene encoding antigenic proteins are extracted from the pathogen and introduced into desired crop.
- Upon ingestion of the edible part, the antigenic protein stimulates and gear up the immune system to face the pathogen. The memory cells that remain after this response are responsible for eliciting the defense mechanism against the real pathogen once it enters the body.

#### Making of Edible vaccine



### 8.21. IAEA Opens World's First Low Enriched Uranium Bank In Kazakhstan

- International Atomic Energy Agency (IAEA) has opened world's first low Enriched Uranium (LEU) Bank in Oskemen in Kazakhstan.
- The bank is owned and managed by IAEA. It will be the first of its kind LEU bank not to be under control of any individual country

#### Purpose of Bank

- It will serve as last resort source of LEU after IAEA member countries are unable to either produce fuel or if it becomes unavailable on the international market.

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- It will discourage countries from developing their own uranium enrichment capacities because the same enrichment technology that produces fuel for a nuclear reactor can also produce the material for a nuclear bomb.
- It will ensure peaceful use of atomic energy without the need to develop a costly enrichment program.
- It will assure that suppliers in the international markets do not manipulate prices or when LEU ceases to be supplied for political reasons.

### International Atomic Energy Agency (IAEA)

- IAEA is an international organization, headquartered at Vienna, that seeks **to promote the peaceful use of nuclear energy**, and to inhibit its use for any military purpose, including nuclear weapons.
- It was established as **an autonomous organization in 1957** through its own international treaty, the IAEA Statute.

### **8.22. Cabinet Approves MoU Between India-Brazil For Cooperation In Zebu Cattle Genomics And ARTs**

- The Union Cabinet was apprised of Memorandum of Understanding (MoU) signed between India and Brazil for cooperation in the fields of Zebu Cattle Genomics and Assisted Reproductive Technologies.
- The MoU would facilitate scientific cooperation and setting up of genomic selection programme in zebu cattle.
- This would be done through application of genomics in zebu cattle and their crosses and buffaloes; application of ARTs in cattle and buffaloes; capacity building in genomics and assisted reproductive technology; and related R&D in genomics and ART.
- Assisted reproductive technology (ART) refers to all treatments that involve handling eggs or embryos outside the body, and this includes IVF as well as a few of its variations.

### Zebu Cattle

- Zebu Cattle (**also known as indicine cattle or humped cattle**), is a species or subspecies of domestic cattle originating in Indian subcontinent.
- They are characterised by fatty hump on their shoulders, a large dewlap, and sometimes drooping ears.
- They are well adapted to withstanding high temperatures, and are farmed throughout tropical countries. They are used as dairy cattle, draught oxen and beef cattle.

## 9. ECOLOGY AND ENVIRONMENT

### 9.1. SC Bans Use Of Heavy Metals In Fire Crackers To Curb Air Pollution

- The Supreme Court has imposed a ban on the use of five harmful heavy metals like **lithium, antimony, mercury, arsenic and lead** in the manufacturing of firecrackers as they cause air and noise pollution.
- The SC order came on a 2015 petition filed by three Delhi children who had requested the apex court to intervene to regulate the use of crackers and fireworks during festivals like Diwali.
- The apex court held that it is the responsibility of the **Petroleum and Explosives Safety Organisation (PESO)** to ensure compliance of ban order particularly in Sivakasi in Tamil Nadu where there is large number of firecracker manufacturers.
- It also asked CPCB (Central Pollution Control Board) and PESO to make collaborative efforts for setting up of standards with regard to air pollution caused by the bursting of fire-crackers.

#### About Petroleum and Explosives Safety Organisation (PESO)

- PESO is a topmost department that controls and administers manufacture, storage, transport and handling of explosives, petroleum, compressed gasses and other hazardous substances.
- It functions under the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry.
- It is headed by Chief Controller of Explosives and is headquartered at Nagpur, Maharashtra.

### 9.2. Climate Change Seen Contributing To Farmer Suicides In India

- Financial distress, lack of timely help, and crop failure has often been blamed for the spiralling numbers of farm suicides in India. Now, a US study has added climate change as another significant factor that is driving the disaster northwards.
- Just a degree rise in temperatures** above 20 degrees during the crucial crop growing season (June-September) could push up the number of suicides by 70.
- In the last 30 years, a total of 59,000 farmer suicides in India have been attributed to the direct cause of rising temperatures as per the study published by the University of California, Berkeley researchers.
- The striking correlation between the rising temperatures — dropping yields — suicides established by the researchers is both disturbing and could be critical in formulating preventive strategies in future.

#### Drought Impact

- The researchers found a dip in annual yields with a rise in temperature and increase in suicides.
- In contrast, an increase of a one cm of rainfall during the growing season led to a fall of around 7 per cent average in the rate of suicides in these regions.

#### Economic Factors

The authors say the relationship between economic shocks and suicide is controversial and, in India, the effect of income-damaging climate variation on suicide rates is unknown. Though, the Centre has announced a \$1.3 billion climate-based, crop insurance scheme motivated as suicide prevention policy, evidence to support such an intervention is still lacking.

## Daunting Task

- With Indian agriculture continuing to be dependent on timely rains, landholdings being small and farmers struggling for finances, the challenge to face the consequences of the growing impact of climate change is indeed daunting. Forecasts predict a temperature rise of atleast 3 more degrees by 2050.
- This implies urgent and increased measures to improve rural farmers credit, crop insurance cover and preventive strategies both at policy and ground level to avoid disastrous consequences in the long-term.

### **9.3. Maharashtra Government To Raise \$270 M From Green Climate Fund**

- The 2030 Water Resources Group (2030 WRG) will help the Maharashtra Government raise \$270 million from the Green Climate Fund, which will be invested in integrated watershed programmes such as Jalyukt Shivar Yojana.
- The Green Climate Fund (GCF) is a new fund under the UN and is guided by the principles and provisions of the UN Framework Convention on Climate Change.
- The 2030WRG is hosted by the **International Finance Corporation** and is a **public-private-civil society collaboration** for water resources reform in developing economies. Its ultimate aim is to close the gap between water demand and supply by the year 2030.
- Ground water was being augmented under Jalyukt Shivar Yojana but it needs to be further connected with the efficient use of water for which one needs technology and infrastructure development at the village level, where the fund will be useful. It will also be used in crop diversification and adding market linkages.
- 2030WRG, along with the State Government, has also launched the Maharashtra Water Resources Multi-Stakeholder Platform, which will address critical water resources challenges in the State.
- One of the areas of work under the platform will be acceleration of water use efficiency programme in irrigated areas, along with agriculture growth and income enhancement. It will also develop public-private-community partnership models for implementation of the programmes. Viable financing solutions, including blended finance models for promoting efficient use of water, will be worked out.

### **9.4. International Biodiesel Day**

#### **In News**

- Every year, August 10 is celebrated as International Biodiesel Day with an aim to turn the focus to non-fossil fuels.
- The day also honours the research experiments by Sir Rudolf Diesel who, in the year 1893, ran an engine with peanut oil. He had also predicted that in future, fossil fuels will be replaced with vegetable oil.
- Biodiesel is an alternative fuel which can be used in place of fossil fuels. It is manufactured from vegetable oils, recycled grease, algae, and animal fat.
- It can be used in diesel-powered cars, trucks, tractors, boats, shipping equipment, irrigation systems, mining equipment, electrical generators and all those applications where diesel is typically

used.

## Facts

- Biodiesel can be used in diesel engines with little or no modification.
- It is a biodegradable, non-toxic, renewable fuel.
- It can be produced locally. It is produced through a chemical process called transesterification, in which glycerine is separated from the fat or vegetable oil.
- The process of transesterification leaves behind two products --methyl esters and glycerine-- which can be sold for the preparation of soaps and other products.
- While burning, it emits 60 per cent less carbon dioxide
- The energy biodiesel produces is approximately 90 per cent of that of energy produced by petroleum diesel.
- It is also used in non-engine applications such as to remove paint etc.

## Why It Should Be Used More Often In Place Of Diesel

- As per the WHO, emissions from diesel cars produce more toxic nitrogen dioxide (NO<sub>2</sub>) and may cause cancer.
- Nitrogen oxides are air pollutants which can decrease lung functionality and increase the risk of respiratory disease symptoms. Their reduction in air takes years.
- The road transport is by far the largest contributor to illegal levels of nitrogen oxide in many parts of the world
- The level of nitrogen oxides from petrol cars have decreased by around 96 per cent, while the level of the pollutant released by the diesel cars has not decreased in a decade
- Diesel fuel contains more energy per litre than petrol.

## 9.5. Namami Ganga Jagriti Yatra

- The UP Government has launched a new awareness drive called Namami Gange Jagriti Yatra. The drive will be focusing on cleanliness along the banks of Ganga river and maintain hygiene.
- The drive has been organised by Uttar Pradesh Homeguard volunteers and will help in spreading awareness in about 25 districts situated on the banks of river Ganga in the state.
- It will urge people to maintain the cleanliness and hygiene of the Ganga river. It will urge people to refrain from practices and other things that pollute the Ganga River.
- The drive will be covering a total area of around 1,025 kms. It will pass through 108 blocks of 25 districts of UP from Bijnore to Ballia alongside the Ganga river.

## 9.6. NGT Puts Interim Ban On Plastic Bags In Delhi

- The National Green Tribunal (NGT) imposed an **interim ban** on use of **plastic bags with thickness less than 50 microns in Delhi**. Violators will be fined Rs 5,000.
- The bench headed by NGT Chairperson Justice Swatanter Kumar also asked the Delhi government to confiscate the stock of non-biodegradable plastic bags within a week's time.

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- In March last year, the Union Environment Ministry had stated that 15,000 tonnes of plastic waste was generated every day, out of which 9,000 tonne was collected and processed, but 6,000 tonne plastic waste was not being collected.
- The Tribunal has also imposed an environment compensation of Rs 10,000 on vegetable vendors and slaughter houses for throwing garbage in the open. The Tribunal had earlier banned the use of non-biodegradable plastic bags and re-implemented the direction on January 1, 2017.

### About NGT

- The NGT was established in October 2010 under the National Green Tribunal Act 2010.
- The stated objective is to provide a specialized forum for effective and speedy disposal of cases pertaining to environment protection, conservation of forests and for seeking compensation for damages caused to people or property due to violation of environmental laws or conditions specified while granting permissions.
- The Principal Bench of the NGT has been established in the National Capital – New Delhi, with regional benches in Pune (Western Zone Bench), Bhopal (Central Zone Bench), Chennai (Southern Bench) and Kolkata (Eastern Bench).
- The Chairperson of the NGT is a retired Judge of the Supreme Court, Head Quartered in Delhi. Other Judicial members are retired Judges of High Courts.
- Each bench of the NGT will comprise of at least one Judicial Member and one Expert Member. Expert members should have a professional qualification and a minimum of 15 years experience in the field of environment/forest conservation and related subjects.
- The NGT has the power to hear all civil cases relating to environmental issues. The NGT is not bound by the procedure laid down under the Code of Civil Procedure, 1908, but guided by principles of natural justice.

### 9.7. Gaj Yatra Marks World Elephant Day

#### In News

- Union Environment, Forest and Climate Change Minister, Dr. Harsh Vardhan launched '**Gaj Yatra**' on 12<sup>th</sup> of August 2017.
- The **goal** of World Elephant Day is to create awareness about the plight of elephants and to share knowledge and positive solutions for the better care and management of captive and wild elephants.
- It is a nationwide campaign to protect elephants on the occasion of World Elephant Day. The campaign is planned to cover 12 elephant range States that have wild elephants, using local art and craft.
- The Environment Minister released the All India Census 2017 Report on elephants and also the **Agreed Points of Action on Trans-Boundary Conservation of Elephants** by India and Bangladesh. A document titled '**Right of Passage**' on elephant corridors in India was also released.
- These can serve as a ready reference source for scientists, policy-makers, technocrats and others concerned with the cause of conservation and sustainable development.

#### Facts

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- African elephants are listed as “**vulnerable**” and Asian elephants as “**endangered**” in the IUCN Red List of threatened species. As per the available population estimates, there are about 400,000 African elephants and 40,000 Asian elephants.
- Though a nation-wide population census exercise for elephants is conducted every five years, this is the first time than an all-India synchronised elephant census was carried out one year in advance, to avoid errors in estimation arising from the significant movement of elephants across different states.
- World Elephant Day was conceived in 2011 by Canadian filmmakers Ms. Patricia Sims and Mr. Michael Clark of Canazwest Pictures and the Secretary-General of the Elephant Reintroduction Foundation of Thailand, Sivaporn Dardarananda.

### **9.8. El Nino Of 2014-16 Aided In Massive Carbon Dioxide Release**

- According to recent study conducted by scientists, the monster El Nino of 2014-16 caused over 3 billion tonnes of carbon to get released into the atmosphere, pushing carbon dioxide (CO<sub>2</sub>) concentration to record levels.
- The study was based on analysis of data collected by **NASA’s Orbiting Carbon Observatory-2 (OCO-2) satellite**, which measures level of CO<sub>2</sub> in the atmosphere. These are the first measurements for satellite tracking CO<sub>2</sub> levels.

#### **El-Nino**

- El Nino means **The Little Boy, or Christ Child in Spanish**. It is a complex phenomenon that causes waters to warm up in east-central Pacific Ocean, which in turn causes huge changes in wind directions bringing less rain to south-east Asia and the Indian subcontinent, while increasing rain in other parts of the world.
- El Nino effect typically last 9 to 12 months.
- It occurs on average every two to seven years.

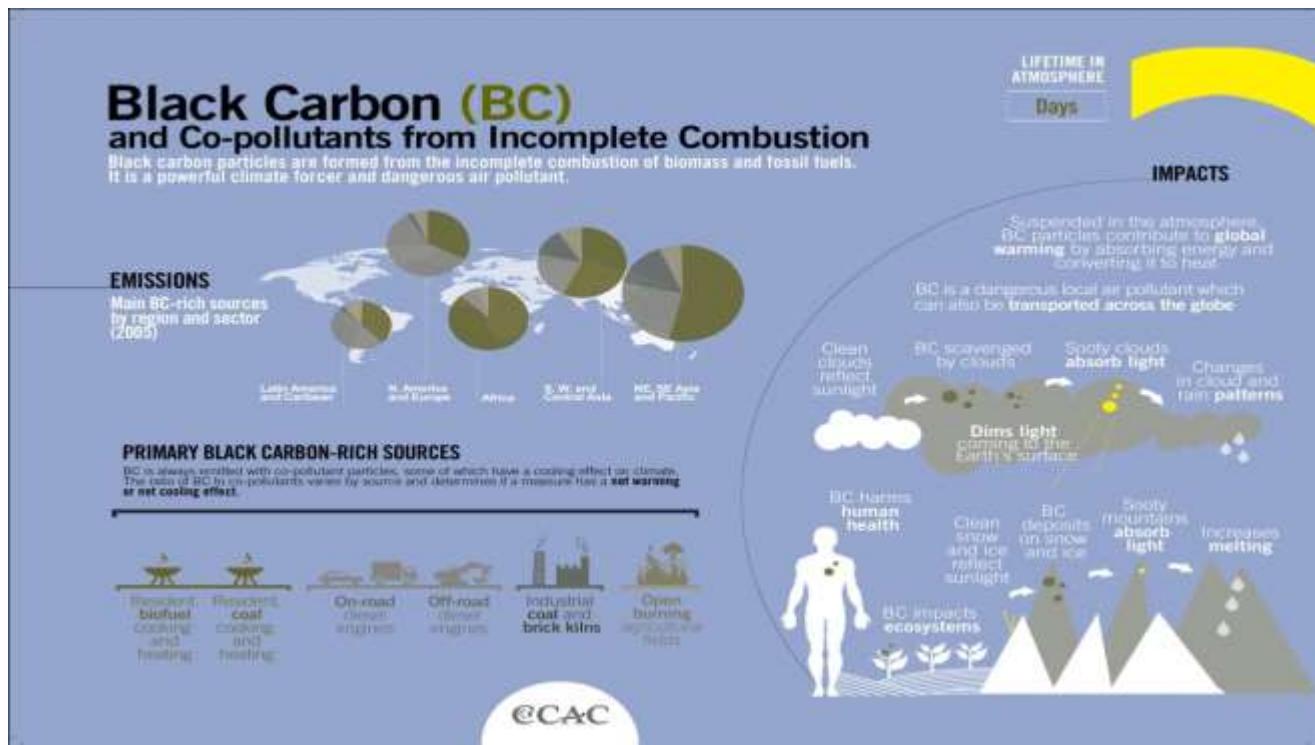
#### **Key Highlights Of Study**

- The El Nino led to **excessive carbon dioxide releases in three ways**. They are
  - 1) Hot weather and drought caused extensive wildfires in south-east Asia,
  - 2) Drought in the Amazon rainforest stunted plant growth, reducing the amount of carbon they absorb while growing,
  - 3) Warmer weather and near normal rainfall in Africa caused forests to exhale more CO<sub>2</sub>.
- The rate of growth of CO<sub>2</sub> in the atmosphere had hit an all-time high of 2.94 parts per million per year in 2015 and slightly below that at 2.89 ppm per year in 2016.
- In other words, CO<sub>2</sub> was being added to the atmosphere at a much higher rate than ever before even though carbon emissions were flat.
- The industrialised countries do not appear to be on course to meet the targets that they pledged at the Paris Climate Accord of 2015. Emissions from European Union countries have actually increased in 2015, the rate at which emissions from US and Japan are declining does not comply with what they had pledged at Paris.

### **9.9. Aeroplanes May Be Affecting Ozone Layer**

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- Aeroplanes may be ejecting significant amounts of **black carbon (BC)** — a pollutant known to aggravate breathing disorders, upset the monsoon and quicken glacier melt — and may be **depleting the ozone layer**, according to a study by climate researchers from multiple institutions in the country.
- Though airborne, BC is known to dissipate and settle down in a few months under the influence of rain and wind and is unlikely to travel upward of 4 km. However, a group of scientists — including from the Indian Institute of Science and ISRO's Vikram Sarabhai Space Centre — say they now have evidence of such particles existing up to 18 km into the stratosphere and there are about 10,000 of them in every cubic centimeter.
- Given the shape and location of these particles, it could only derive from emissions from aviation fuel and they pose a problem because these black carbon particles can linger long enough to provide a fertile ground for other chemical reactions that can deplete the ozone layer.
- The stratosphere is a stable region of the atmosphere and because BC particles absorb heat, they warm the surrounding air, become lighter and rise to greater heights by a process called 'self-lift' and persist in the air.
- The sheer volume of air travel means that the black carbon count only continues to increase.
- Because BC particles strongly absorb solar and terrestrial radiation and heats up the atmosphere it can upset the monsoon system. If deposited on snow, it could accelerate the heating of snow and quicken the melting of glaciers.
- Moreover, when BC particles are located above highly reflective surfaces (snow or clouds), their absorption efficiency is amplified. It is known to be one-fourth as potent as carbon dioxide in whetting global warming and ways and means to curb its emissions are increasingly part of international climate discussions.
- Last year the Indian Meteorological Department (IMD) launched a **System of Aerosol Monitoring and Research (SAMAR)** to study the concentration of black carbon in the atmosphere due to air pollution and its impact on climate.



### 9.10. Elephant Census 2017: India's Elephant Population Decreases By 10%

- The population of India's national heritage animal—the elephant—has dipped in the country in the last five years. The Union Environment Ministry released the result of the **Elephant Census 2017**, which pegged their population at 27,312 across 23 states.
- The ministry has claimed that the dip in their population is due to use of scientific and uniform methods, which are more credible. Also this is only a preliminary report, and presents results only from the direct count method.
- In 2012, the population of Asian elephant, an endangered and protected species in India, was estimated at around **30,000** and in 2007 it was estimated at about **27,670** (27,657-27,682).
- As per the International Union for Conservation of Nature (IUCN), the population of Asian elephants was about 41,410 to 52,345 and of that **India alone accounts for nearly 60%**.
- The population was recorded in the following geographical regions: northern, east-central, northeast, and southern.
- Among the States, the highest population was recorded in **Karnataka (6,049)**, followed by Assam (5,719) and Kerala (3,054).
- As far as regions are concerned, the highest population was **in southern region (11,960)** followed by the northeast region (10,139), east-central region (3,128) and northern region (2,085).

#### Future Strategy For Conservation

- A Document was also released titled—“**Agreed points of action on trans-boundary conservation of elephants by India and Bangladesh**”—which highlighted the issues on which the two nations have achieved consensus.
- The agreed points included constitution of a **joint working group within 60 days** to evolve and develop protocols and standard operating procedures for trans-boundary conservation and management of elephants.
- It also called for facilitating trans-boundary migration along the India-Bangladesh border, establishment of response teams to guide such elephants which may stray into human settlements, ensure sharing of information, discouraging erection of electric fences for protection of agriculture and horticulture crops in the areas falling in identified migratory corridors to prevent death of elephants from electrocution and steps to protect, improve and expand natural habitats for elephants.

### **9.11. Climate Change Costs India \$10 Billion Every Year, Says Agriculture Ministry**

#### **Observations Of Agri Ministry**

- Catastrophic weather conditions are costing India \$9-10 billion annually.
- Climate change is projected to impact agricultural productivity with increasing severity from 2020 to the end of the century.
- It also mentioned that the extreme weather events are not always linked to climate change but their frequency and severity is increasing and this is being increasingly read as fallout of climate change.

#### **Climate Change Effect On Agriculture**

- The productivity of major crops will be marginal in the next few years but it could rise to as much as 10-40% by 2100 unless farming adapts to climate change.
- Major crops such as wheat, rice, oilseeds, pulses, fruits and vegetables will see reduced yields over the years.
- It will force farmers to either adapt to challenges of climate change or face the risk of getting poorer.
- It could turn India into a major importer of oilseeds, pulses and even milk.
- Adaptation to climate change will need different cropping patterns and suitable inputs to compensate yield fluctuations.

#### **Food Security**

- Vulnerability of Indian agriculture due to vagaries associated with climate change and low adaptation capacity of majority of Indian farmers poses risk to food security of the country.
- By 2030, India may need 70 million tonnes more of foodgrains than the expected production in 2016-17.
- The demand for food is also going to increase due to an increasing population, expanding urbanization and rising income.
- To meet increasing demand, India to depend on import if it does not act on time to increase production and productivity of major food crops, pulses, oilseeds and milk by adapting to climate change.

### **9.12. GM Crops Only After Biosafety, Socio-Economic Evaluation**

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According to a parliamentary panel, no genetically modified (GM) crop should be introduced in India unless the biosafety and socio-economic desirability is evaluated in a “transparent” process and an accountability regime is put in place.

### Highlights

- The committee has also recommended that the environment ministry should examine the impact of GM crops on environment thoroughly, in consultation with all stakeholders so that the nation is very clear about all its probable effects before taking a call on the matter.
- The remarks come after India's GM crop regulator Genetic Engineering Appraisal Committee (GEAC) recently recommended the commercial use of genetically modified mustard in a submission to the environment ministry.
- It said GM mustard being a herbicide-tolerant GM organism (GMO), there is clear evidence on the adverse impacts of such GMOs elsewhere in the world.
- The committee noted that the GEAC has given its approval for commercialisation of GM mustard “inspite of the fact that the matter is pending for decision in the Supreme Court.”

### Background

- The **Centre for Genetic Manipulation of Crop Plants (CGMCP), Delhi University**, had submitted an application to the GEAC for the environmental release of **GM mustard (*Brassica juncea*) hybrid DMH—11 and the use of parental events (varuna bn 3.6 and EH2 mod bs 2.99)** for the development of a new generation of hybrids.
- In a current environment where climatic change would have negative effects on yield of many major crops which could seriously undermine food security, GM crops are the way forward. However at the same time to convince the opponents of GM crops to allow commercialization of GM crops we need a strong regulatory framework.
- What is therefore needed is an independent biotechnology regulatory authority, a single organization that will replace the multiple committees

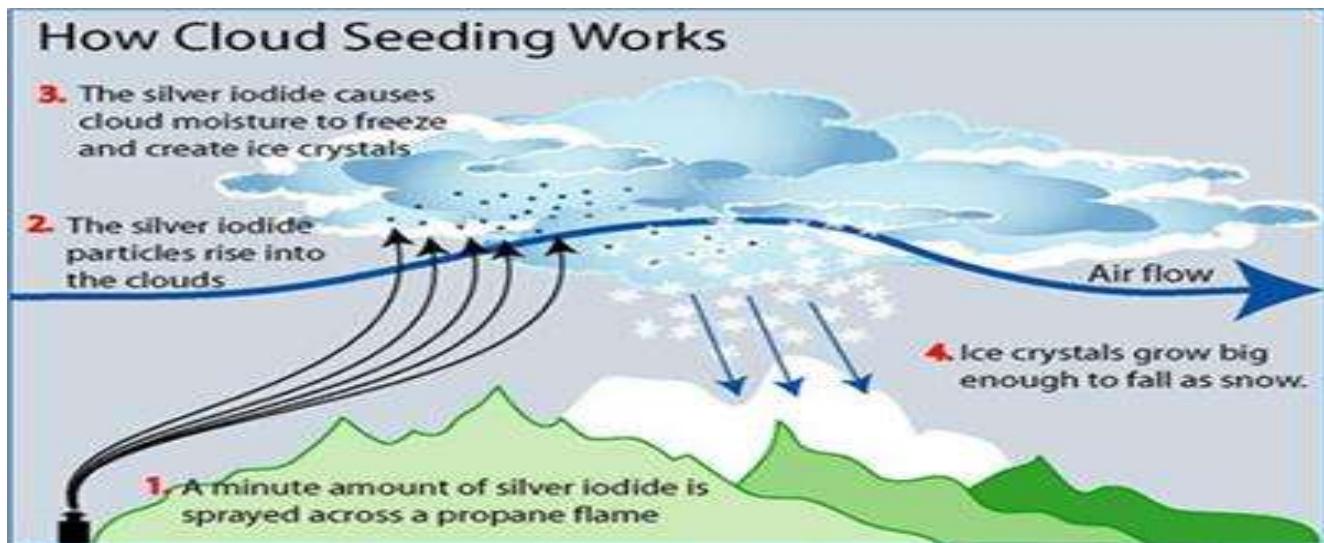
### 9.13. Varshadhari: Cloud Seeding Project Launched By Karnataka

- Karnataka Government has launched cloud seeding **Project Varshadhari in Bengaluru** under which an aircraft will spray chemicals to induce rainfall. Its purpose is to reform small-sized particles (less than 10 µm size) into 50-micron droplets by clouds.
- A special Aircraft will be used to spread aerosols (silver iodide, potassium iodide, and dry ice -solid carbon dioxide ) into the clouds to stimulate the precipitation process.

### About Cloud Seeding

- Cloud-seeding is a **kind of weather modification procedure** that attempts to enhance the amount of precipitation from the clouds to generate more rain. Karnataka is resorting to cloud-seeding after 14 years. Previously, the State had carried out such an operation in 2003.
- Three Doppler radars are being set up at Bengaluru, Gadag and Surpur (Yadgir district) to detect the rain-bearing clouds and enable their seeding. As part of the seeding strategy, special aircraft will disperse the **chemical silver iodide** as they fly through rain-bearing clouds that will trigger and enhance the precipitation.

- Rain deficiency has hurt the pace of the ongoing kharif sowing operations while impacting the inflows in reservoirs and tanks. Several towns in North and Central Karnataka continue to face drinking water scarcity.
- According to the IMD, cumulative **rainfall deficit in South Interior Karnataka is pegged at 26 per cent**, while in **North Interior Karnataka** the deficiency is **19 per cent**. Coastal Karnataka faces a rain **deficit of 23 per cent**.



### 9.14. India And Germany Ink Pact To Boost Green Energy Ties

- The Ministry of New and Renewable Energy (**MNRE**) and Deutsche Gesellschaft für Internationale Zusammenarbeit (**GIZ**) GmbH India on behalf of Germany signed an agreement on technical cooperation under the "**Indo-German Energy Programme - Green Energy Corridors (IGEN-GEC)**".
- This relationship between GIZ and India will result in improved market mechanisms and regulations and help train manpower in India to ensure grid stability to ensure more and more integration of renewables in the country.
- It will lead to a safer grid, a more secured grid, a grid which can also take care of cyber challenges.

#### Green Energy Corridor

- The Green energy corridor project, envisaged by Power Grid Corporation of India Limited (PGCIL), is grid connected network for the transmission of renewable energy produced from various renewable energy projects.
- **Two green corridor transmission networks are proposed under the project.** Firstly, construction of the inter-state transmission network for connecting renewable energy-rich states under Green Corridor-I will be completed.
- Besides, a Green Corridors-II for solar parks is also started which is connecting solar parks in different states including Andhra Pradesh, Madhya Pradesh, Karnataka, Rajasthan and Gujarat.

### 9.15. India's Exclusive Rights to Explore Polymetallic Nodules

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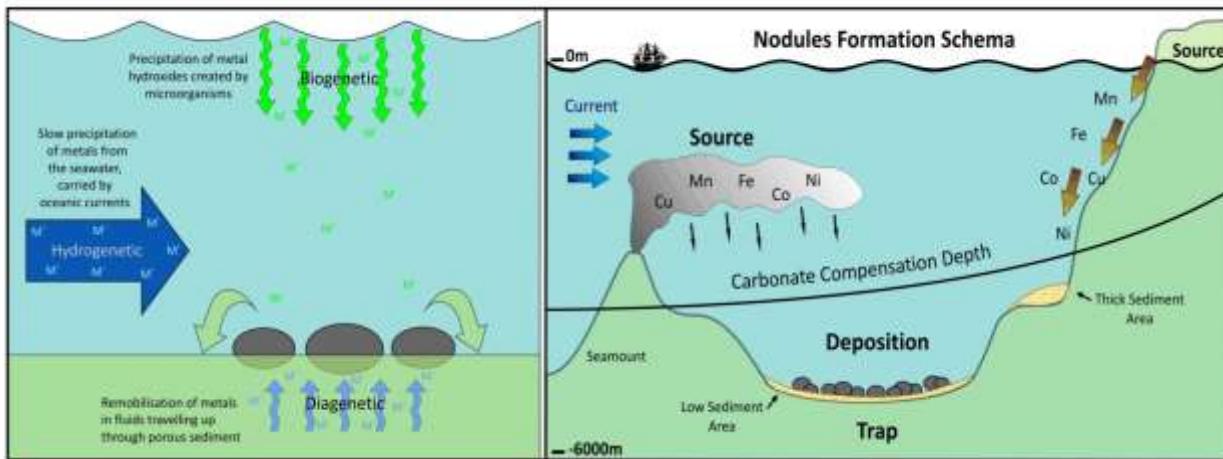
- India's exclusive rights to **explore polymetallic nodules** from seabed in Central Indian Ocean Basin (CIOB) have been extended by five years.
- These rights are over 75000 sq. km of area in international waters allocated by **International Seabed Authority** for developmental activities of polymetallic nodules. The estimated polymetallic nodule resource potential is 380 million tonnes, containing nickel, copper, cobalt and manganese.
- This has been approved unanimously in the **23rd session of International Seabed Authority (ISA)** concluded on August 18, 2017 at Kingston, Jamaica.
- India is the first country to have received the status of a pioneer investor in 1987 and was allocated an exclusive area in **Central Indian Ocean Basin** by United Nations (UN) for exploration and utilization of nodules.

### India And The International Seabed Authority

- The International Seabed Authority is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea (link is external) and the 1994 Agreement (link is external) relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea.
- It has been set up to regulate the exploration and exploitation of marine non-living resources of oceans in international waters. Its mandate is to organize, regulate and control all mineral-related activities in the international seabed area beyond limits of national jurisdiction (exclusive economic zone), an area underlying most of world's oceans.
- India actively contributes to the work of International Seabed Authority.
- Last year, India was re-elected as a member of Council of ISA. India's nominees on Legal and Technical Commission and Finance Committee of the ISA were also elected last year.

### About Polymetallic Nodules

- Polymetallic nodules also called manganese nodules are rock concretions on the sea bottom formed of concentric layers of iron and manganese hydroxides around a core. The core may be microscopically small and is sometimes completely transformed into manganese minerals by crystallization.
- These bean- to potato-sized nodules are currently the target of exploration and research, mostly focused on the equatorial Pacific Ocean.
- If production of these nodules proves technically, economically and legally viable they could become a major source of manganese.
- Manganese is essential and irreplaceable in steelmaking and its global mining industry is dominated by just a few nations.
- Manganese is used also as an alloy with metals such as aluminum and copper.
- Important non-metallurgical uses include battery cathodes, soft ferrites used in electronics, micronutrients in fertilizers, micronutrients in animal feed, water treatment chemicals, colorant for automobile undercoating, bricks, frits, glass, textiles and tiles.
- The product manganese violet is used for the coloration of plastics, powder coatings, artist glazes, and cosmetics.



## **9.16. Gobindobhog Rice Gets Geographical Indication Status**

- Gobindobhog rice, a **speciality from Burdwan district of West Bengal**, has got the geographical indication (GI) status.
- The region of Burdwan (now divided into the districts of east and west Burdwan) is known as **the ricebowl of Bengal**.
- As a result of getting the GI tag, as the certification is also called, rice from other regions or rice of other varieties cannot be branded as 'Gobindobhog'. Hence, the marketability of the rice would be strengthened, for the local, national and international markets.
- This variety of rice is primarily cultivated in east Burdwan district - in the southern **basin of the Damodar river** in the Raina 1, Raina 2 and Khandaghosh blocks.

### **Features**

- The rice has several advantages. It is cultivated late and therefore **not much affected by rains**.
- **It is less prone to pests as well**.
- The productivity per area is high and farmers get better prices for Gobindobhog rice.

### **Geographical Indication Status**

- A geographical indication (GI) is a **name or sign used on products which corresponds to a specific geographical location or origin** (e.g. a town, region, or country).
- The use of a geographical indication may **act as a certification that the product possesses certain qualities**, is made according to traditional methods, or enjoys a certain reputation, due to its geographical origin.

### **Observed Rural Development Impacts Of Geographical Indications**

- a structuring of the supply chain around a common product reputation,
- increased and stabilized prices for the GI product,
- added value distributed through all the levels of the supply chain,
- preservation of the natural resources on which the product is based,
- preservation of traditions and traditional know-how,

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- linkages to tourism

