

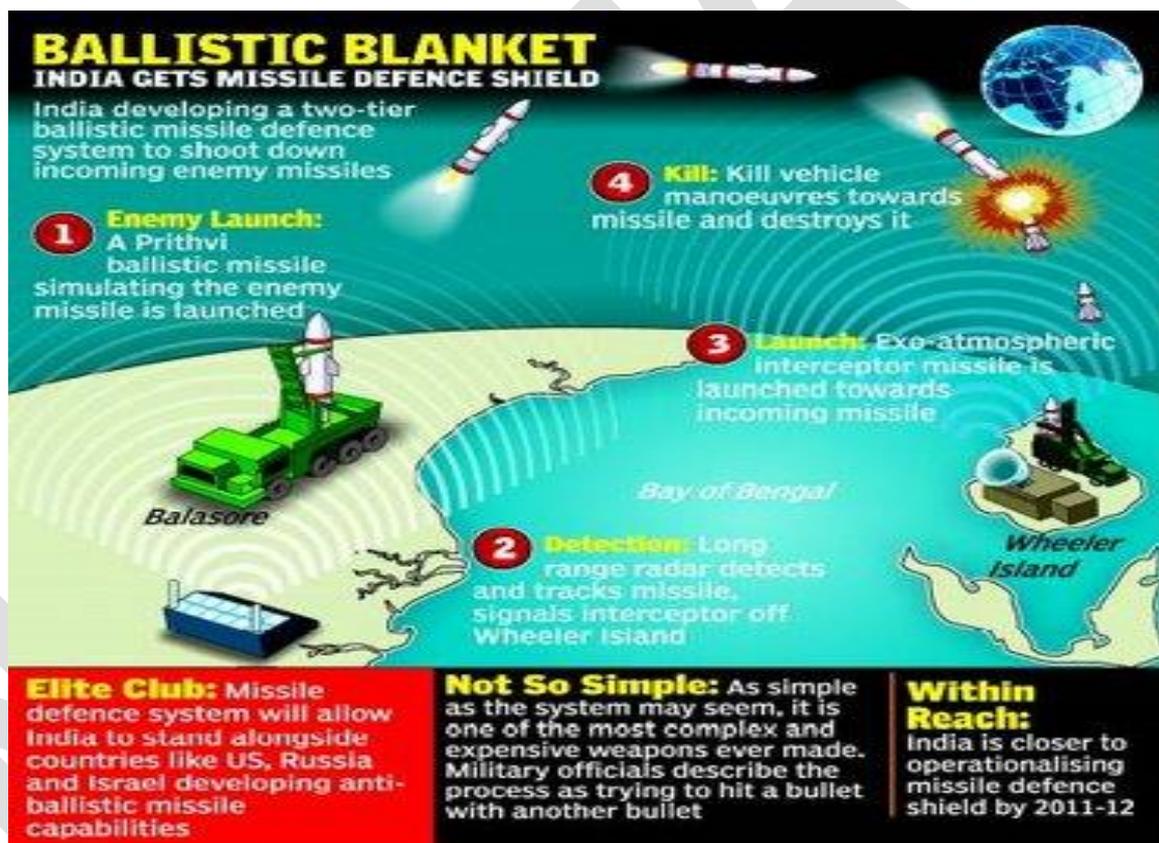
CURRENT AFFAIRS

11TH TO 20TH NOVEMBER 2018**BALLISTIC MISSILE INTERCEPTOR AAD TESTED SUCCESSFULLY**

DRDO conducted the successful test of the Ballistic Missile Interceptor Advanced Area Defence (AAD) from Abdul Kalam Island, Odisha.

HIGHLIGHTS

- The endo-atmospheric missile, capable of intercepting incoming targets at an altitude of 15 to 25 kms was launched against multiple simulated targets of 1500 km class ballistic missile.
- AAD is a single-stage, solid-fueled missile.
- One target among simultaneously incoming multiple targets was selected on real time, the weapon system radars tracked the target and the missile locked on to it and intercepted the target with a high degree of accuracy.
- The complete event including the engagement and interception was tracked by a number of electro-optical tracking systems, radars and telemetry stations.

INDIAN BALLISTIC MISSILE DEFENCE PROGRAMME

- The Indian Ballistic Missile Defence Programme is an initiative to develop and deploy a multi-layered ballistic missile defence system to protect from ballistic missile attacks.
- It is a double-tiered system consisting of two land and sea-based interceptor missiles, namely the Prithvi Air Defence (PAD) missile for high altitude interception, and the Advanced Air Defence (AAD) Missile for lower altitude interception.

- The two-tiered shield should be able to intercept any incoming missile launched from 5,000 kms away.

The **Prithvi Air Defence (PAD)** is an anti-ballistic missile developed to intercept incoming ballistic missiles outside the atmosphere (exo-atmospheric). Based on the Prithvi missile, PAD is a two-stage missile with a maximum interception altitude of 80 km. PAD has capability to engage the 300 to 2,000 km class of ballistic missiles at a speed of Mach 5. The PAD missile has also been called Pradyumna.

GENETIC SCREENING

The Centre has prepared a draft policy proposing compulsory genetic screening of all pregnant women to prevent inherited disorders such as thalassemia and sickle cell anaemia.

HIGHLIGHTS

- Thalassemia and sickle cell anaemia are variants of Haemoglobinopathies.
- Hemoglobinopathy is a kind of genetic defect that results in abnormal structure of one of the globin chains of the hemoglobin molecule.
- Thalassemia usually results in underproduction of normal globin proteins, often through mutations in regulatory genes.
- The abnormality results in improper oxygen transport and destruction of red blood cells.
- It has wide-ranging effects on the human body like iron overload, bone deformities and in severe cases can cause heart diseases.
- The disease has no cure and people living with thalassemia require regular blood transfusions as an effective measure to prolong life.

QUAMI EKTA WEEK

The observation of the 'Quami Ekta Week' helped to highlight the inherent strength and resilience of our nation to withstand actual and potential threats to the eclectic and secular fabric of our country, and nurture a spirit of communal harmony in its widest sense.

HIGHLIGHTS

- The National Foundation for Communal Harmony (NFCH), an autonomous organization with the **Ministry of Home Affairs**, organises Communal Harmony Campaign coinciding with the Qaumi Ekta Week and observes the Communal Harmony Flag Day on 25th November.
- The National Foundation for Communal Harmony (NFCH) principally provides assistance for the rehabilitation of child victims of different kinds of societal violence, promotes communal harmony and national integration either independently or through state governments or NGOs, etc., and confers Awards on Individuals and Organizations for their outstanding contribution towards fosters communal harmony & strengthening national integration.
- Besides these, the Foundation also sponsors and conducts research studies and brings out publications on themes related to communal harmony and national integration.
- Major Projects, programs and activities of the Foundation include **Project 'Assist', Project 'Recognition' (i.e. The National Communal Harmony Awards), Project 'Reach', Project**

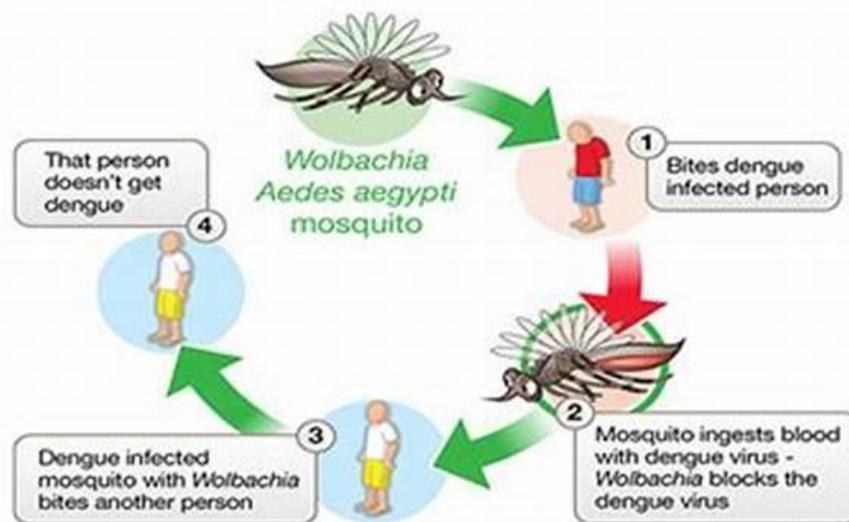
'Interfaith-Interaction', Project 'Research' & 'Publications', Communal Harmony Campaign & Flag Day and Volunteers for Peace & Harmony.

WOLBACHIA

India and several countries are carrying out experiments to look in to the possibility of breeding Wolbachia in Aedes aegypti.

The experiment has proved remarkably effective in a small town in Australia, preventing fresh outbreaks of dengue. At present, large-scale trials are under way in Brazil, Colombia and Indonesia.

FACTS



- Wolbachia is a tiny bacterium that is present in 60% of all species of insects, including several mosquito species.
- But the bacterium is not usually in the Aedes aegypti mosquito, which is primarily responsible for transmitting dengue, chikungunya and Zika.
- It is one of the world's most common parasitic microbes and the most common reproductive parasite in the biosphere.
- If this bacterium is introduced in mosquitoes, it could stop disease-spreading viruses from replicating, growing and spreading the diseases.

INSPIRE 2018

The second edition of INSPIRE (International Symposium to Promote Innovation & Research in Energy Efficiency) organised by Energy Efficiency Services Limited (EESL) and World Bank. The three-day symposium focussed on enhancing grid management, e-Mobility, financial instruments and technologies for energy efficiency in India.

INSPIRE 2018 has been organised in collaboration with the Bureau of Energy Efficiency (BEE), The Energy & Resources Institute (TERI), Asian Development Bank (ADB), the United Nations Environment Program (UNEP), and the Administrative Staff College of India (ASCI).

HIGHLIGHTS

- The #InnovateToINSPIRE challenge was organized by EESL and World resources Institute (WRI) between 21 August, 2018 and 12 October, 2018 in the run-up to INSPIRE 2018.
- The challenge invited participants to submit sustainable and scalable solutions to seven specific challenges spanning grid management, e-Mobility, energy efficient technologies and financial instruments.
- To support investments in new, innovative and scalable business models, EESL and Asian Development Bank (ADB) signed an agreement for a Global Environment Facility (GEF) grant of USD 13 million to establish an **Energy Efficiency Revolving Fund (EERF)**.
- EERF aims to expand and sustain investments in the energy efficiency market in India, build market diversification, and scale up existing technologies.

INSPIRE PROGRAMME

- **Innovation in Science Pursuit for Inspired Research (INSPIRE)** Program is sponsored and managed by **Ministry of Science & Technology**.
- The basic objective of INSPIRE is to attract young talents to the study of science and build the required critical human resource pool for strengthening R & D base.
- The program does not conduct any competitive exams for identification of talent at any level.
- It relies on the existing educational structure for identification of talent.
- The **program has three components**:
 - a) Scheme for Early Attraction of Talent- (SEATS).
 - b) Scholarship for Higher Education- (SHE).
 - c) Assured Opportunity for Research Careers - (AORC).

EESL

- Energy Efficiency Services Limited (EESL), under the administration of **Ministry of Power**, Government of India, is working towards mainstreaming energy efficiency and is implementing the world's largest energy efficiency portfolio in the country.
- EESL aims to create market access for efficient and future-ready transformative solutions that create a win-win situation for every stakeholder.
- By 2020, EESL seeks to be a US\$ 1.5 billion (INR 10,000 crore) company.

GLOBAL DIGITAL CONTENT MARKET 2018

The Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, hosted a conference on Global Digital Content Market (GDCM)2018, on 14th- 15th November 2018, in New Delhi.

India has been chosen as a host nation for the conference by **World Intellectual Property Organization (WIPO)** due to the strong creative industry in the country in films, music and media. The focus for this year's conference is the Asia Pacific region.

HIGHLIGHTS

- GDCM is a platform to discuss vital issues and enhance development of the digital and IP generating industries such as publishing, films, music, and gaming all of which are major contributors to the Indian GDP.
- India has recently approved accession to the **WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT)** that has increased the coverage of protection of copyrights in the international IP regime as it is extended to even the internet and digital environment. This will bring the Indian creative industry under and international copyright system, secure distribution of their work and provide them with a level playing field.

WIPO

- The World Intellectual Property Organization is one of the 15 specialized agencies of the United Nations (UN).
- WIPO was created in 1967 "to encourage creative activity, to promote the protection of intellectual property throughout the world".
- WIPO currently has 191 member states, administers 26 international treaties.
- Headquartered in Geneva, Switzerland.

WIPO COPYRIGHT TREATY

- The WIPO Copyright Treaty (WCT) is a special agreement under the **Berne Convention** which deals with the protection of works and the rights of their authors in the digital environment.
- In addition to the rights recognized by the Berne Convention, they are granted certain economic rights.
- The Treaty also deals with two subject matters to be protected by copyright: (i) computer programs, whatever the mode or form of their expression; and (ii) compilations of data or other material ("databases").

INDIAN WIND TURBINE CERTIFICATION SCHEME

Ministry of New and Renewable Energy, in consultation with National Institute of Wind Energy Chennai, has prepared a draft of new Scheme called Indian Wind Turbine Certification Scheme (IWTCS) incorporating various guidelines Turbine Certification Scheme (IWTCS).

HIGHLIGHTS

- The IWTCS is a consolidation of relevant National and International Standards (IS/IEC/IEEE), Technical Regulations and requirements issued by Central Electricity Authority (CEA), guidelines issued by MNRE and other international guidelines.
- It has also strived to incorporate various best practices from other countries to ensure the quality of the wind energy projects.
- The draft Scheme enlists the guidelines for the benefit of all the stakeholders from concept to lifetime of wind turbine, including Indian Type Approved Model (ITAM), Indian Type Certification Scheme (ITCS), Wind Farm Project Certification Scheme (WFPCS) and Wind Turbine Safety & Performance Certification Scheme (WTSPCS).

YUVA SAHAKAR-COOPERATIVE ENTERPRISE SUPPORT & INNOVATION SCHEME

To cater to the needs and aspirations of the youth, the National Cooperative Development Corporation (NCDC) has come up with a youth-friendly scheme 'Yuva Sahakar - Cooperative Enterprise Support and Innovation Scheme' for attracting them to cooperative business ventures.

HIGHLIGHTS

- NCDC has created a dedicated fund with liberal features enabling youth to avail the scheme.
- The scheme will be linked to Rs 1000 crore '**Cooperative Start-up and Innovation Fund (CSIF)**' created by the NCDC.
- It would have more incentives for cooperatives of North Eastern region, Aspirational Districts and cooperatives with women or SC or ST or PwD members.
- The funding for the project will be up to 80% of the project cost for these special categories as against 70% for others.
- The scheme envisages 2% less than the applicable rate of interest on term loan for the project cost up to Rs 3 crore including 2 years moratorium on payment of principal.
- All types of cooperatives in operation for at least one year are eligible.

NCDC: Set up under an Act of Parliament, NCDC is engaged in the promotion and development of Cooperative in agriculture and rural oriented activities. Its act has also been amended recently to enable it to fund cooperatives in the services sector, rural industries, livestock etc.

BHOOMI RASHI PORTAL

The inaugural session of the General Assembly of Network for Development of Agricultural Cooperatives in Asia and the Pacific (NEDAC) held in New Delhi.

- NEDAC is a unique organization encompassing mix of Government and non-Government organizations created by FAO for synergizing policies and programmes of government and cooperative institutions at country level.
- **Theme: 'Cooperatives to Cooperative Trade' and 'Capacity Development partnerships in NEDAC'**.
- The ultimate aim would be to bring about an increase in farmers income and raise their economic standard by bringing cooperative trade in the mainstream and enhance cooperative professionalism.
- The general assembly of 22 prominent cooperative organizations from eight countries unanimously decided to focus on C2C and capacity development to meet challenges of climate change as transformative cooperatives.

NEDAC

- NEDAC was set up in 1991 by the United Nations' Food and Agriculture Organisation (FAO), the International Cooperative Alliance (ICA) and the International Labour Organisation (ILO).
- NEDAC sensitizes Governments in the region on the role of agricultural cooperatives in promoting agricultural and rural development to ensure rural food and livelihood security for millions of people in Asia and Pacific.

ADI MAHOTSAV

“Aadi Mahotsav” a National Tribal Festival is being organized in New Delhi by the Ministry of Tribal Affairs and TRIFED in New Delhi.

The theme of the festival is: “A Celebration of the Spirit of Tribal Culture, Craft, Cuisine and Commerce”.

- The Tribal Cooperative Marketing Development Federation (TRIFED), which is an agency of the Union Tribal Ministry, organized this tribal festival.
- The Mahotsav comprised of display and sale of items of tribal art and craft, tribal medicine & healers, tribal cuisine and display of tribal folk performance, in which tribal artisans, chefs, folk dancers/musicians from 23 States of the country shall participate and provide glimpse of their rich traditional culture.
- It has exhibition-cum-sale of tribal handicrafts, art, painting, garments, and ornaments through 100 stalls.

TRIFED

- The Tribal Cooperative Marketing Development Federation of India (TRIFED) came into existence in 1987.
- It is a national-level apex organization functioning under the administrative control of Ministry of Tribal Affairs, Govt. of India.
- TRIFED has its registered and Head Office located in New Delhi and has a network of 13 Regional Offices located at various places in the country.

HIMALAYAN STATE REGIONAL COUNCIL

NITI Aayog has constituted the ‘Himalayan State Regional Council’ to ensure sustainable development of the Indian Himalayan region.

HIGHLIGHTS

The Council has been constituted to review and implement identified action points based on the Reports of five Working Groups, which were established along thematic areas to prepare a roadmap for action.

- These Working Groups were tasked with preparing a roadmap for action across five thematic areas namely,
 - a) Inventory and Revival of Springs in Himalayas for Water Security,
 - b) Sustainable Tourism in Indian Himalayan Region,
 - c) Shifting Cultivation: Towards Transformation Approach,
 - d) Strengthening Skill & Entrepreneurship (E&S) Landscape in Himalayas, and
 - e) Data/Information for Informed Decision Making.
- The five thematic reports were released by the NITI Aayog.
- The Himalayan State Regional Council will be chaired by the Member of NITI Aayog and will consist of the Chief Secretaries of the Himalayan States as well as the Secretaries of key Central Ministries, senior officers of NITI Aayog as well as special invitees.

- The Himalayan States Regional Council will be the nodal agency for the Sustainable development in the Himalayan Region which consists of the twelve States namely **Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, two districts of Assam namely Dima Hasao and Karbi Anglong and Darjeeling and Kalimpong in West Bengal.**
- The terms of reference of the Council states that it shall monitor the implementation of action points for Central Ministries, Institutions and 12 Himalayan State Governments in Indian Himalayan Region which include:
 - river basin development and regional cooperation, spring mapping and revival across Himalayas in phased manner for water security; develop, implement and monitor tourism sector standards as well as bring policy coherence, strengthen skill & entrepreneurship with focus on identified priority sectors, among other action points.**

IIFCL

Recent Development – Asian Development Bank (ADB) and Government of India has recently signed \$300 million Loan Agreement to support lending by IIFCL.

INDIA INFRASTRUCTURE FINANCE COMPANY LIMITED

- IIFCL is a wholly-owned Government of India company set up in 2006.
- It has been registered as a **NBFC-ND-IFC** with RBI since September 2013.
- It provides long term finance to viable infrastructure projects – Both **Greenfield and Brownfield projects.**
- It provides refinance to banks and other eligible financial institutions for their loans to infrastructure projects.
- The sectors eligible for financial assistance from IIFCL are as per the harmonized list of Infrastructure Sub-Sectors as approved by the Government and RBI.
- It broadly includes transportation, energy, water, sanitation, communication, social and commercial infrastructure.

Green-field projects: when a parent entity begins a new venture by constructing new facilities in a country outside their headquartered country.

Brown-field projects: when an entity or government purchases an existing facility to begin new production.

NBFC-ND-IFC

- RBI has classified Non-Banking Financial Companies (NBFCs) in to 4 categories.
- They are Asset Finance Companies, Loan companies and Investment Companies and Infrastructure Finance Companies (IFCs).
- An IFC is defined as Non-Deposit taking NBFC (NBFC-ND) that fulfils following criteria,
 1. A minimum of 75% of its total assets should be deployed in infrastructure loans.
 2. Net owned funds of Rs. 300 crore or above.
 3. Minimum credit rating 'A' or equivalent of CRISIL, FITCH, CARE, ICRA or equivalent rating by any other accrediting rating agencies.

4. CRAR (Capital to Risk Weighted Assets ratio) of 15 % with a minimum Tier I capital of 10 percent.

MATERNITY INCENTIVE SCHEME

Maternity Benefit Act was amended in 2017 to increase paid maternity leave from 12 to 26 weeks for all women employees in establishments employing 10 or more people.

- The implementation of the act was good in public sectors, but it was poor for those with private sector or contract jobs.
- In a bid to encourage private employers, Ministry of Labour and Employment is working on an incentive scheme.
- Accordingly, the government would bear the cost of maternity leave wages for 7 weeks for women workers with a wage ceiling up to Rs.15,000 per month.

BACKGROUND

- The Maternity Benefit Act, 1961 applies to establishments employing 10 or more than 10 persons in Factories, Mines, Plantation, Shops & Establishments and other entities.
- The main purpose of this Act is to regulate the employment of women in certain establishments for certain period before and after child birth and to provide maternity benefit and certain other benefits.
- The Act was amended through the Maternity Benefit (Amendment) Act, 2017 which, inter alia, has increased the paid maternity leave to women employees from 12 weeks to 26 weeks.

DRAFT RESOLUTION ON DEATH PENALTY

United Nations General Assembly has recently approved a resolution on death penalty.

- India has voted against the draft resolution saying it goes against the statutory law of the country where an execution is carried out in the "rarest of rare" cases.
- Singapore has introduced an amendment on behalf of 34 countries.
- The amendment reaffirmed the countries' sovereign right to develop their own legal system, including determining appropriate legal penalties, in accordance with their international law obligations.
- India voted in favor of this amendment.

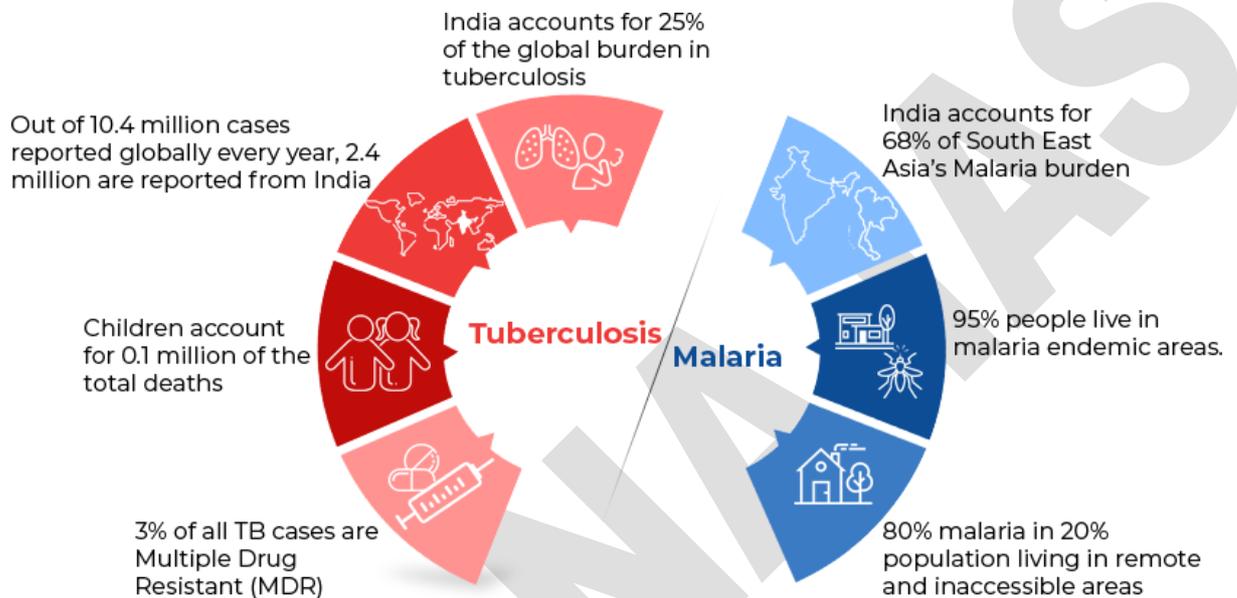
INDIAN HEALTH FUND

India Health Fund has recently announced that it has chosen 4 innovators to effectively tackle eradicate the diseases.

HIGHLIGHTS

- It is an initiative led by Tata Trusts, in collaboration with The Global Fund.
- It endeavors to leverage the power of collective impact to eradicate tuberculosis (TB) by 2025 and malaria by 2030 from India.
- It supplements the government's efforts to fight the epidemics.
- Tata Trusts is a section 8 company registered under the Companies Act, 2013.

- The **Global Fund is an international financing organisation which is headquartered in Geneva, Switzerland.**
- It focuses on accelerating the additional resources to end the epidemics of HIV/AIDS, TB and Malaria.
- India contributes to 25 per cent of the global TB burden and 68 per cent of all malaria cases in the Southeast Asia region.



OBJECTIVES

- Mobilize and invest up to USD150 million over 5 years in scaling up high impact innovations in India.
- Promote and catalyse validated cutting-edge innovations that help in effective management of TB and malaria.
- Build a network of stakeholders, comprising the government, corporations, foundations and philanthropies, to boost the pool of resources, unlock opportunities and ideate for impact.
- Leverage core capacities of private sector to support strategic planning, implementation and evaluation of health programs.
- Exchange best practices and infuse innovations within India and across the globe.
- Create sustainable self-supporting operational model to sustain and scale interventions in TB and malaria.

NATIONAL COUNCIL ON INDIA'S NUTRITION CHALLENGES

The Council which been set up under POSHAN Abhiyan, it is the apex body to formulate overall policies, guide and monitor all nutrition-based schemes.

- The Council will submit its report to the **Prime Minister every six months.**
- The **mandate** of the Council is:
 - a) To provide policy directions to address India's Nutrition Challenges through coordinated inter-sectoral action.

- b) To coordinate and review convergence among ministries.
- c) To review programmes for nutrition on a quarterly basis

NATIONAL NUTRITION MISSION

The programme through the targets will strive to reduce the level of **stunting, under-nutrition, anaemia and low birth weight babies**. It will create synergy, ensure better monitoring, issue alerts for timely action, and encourage States/UTs to perform, guide and supervise the line Ministries and States/UTs to achieve the targeted goals.

FEATURES

- The mission, commencing 2017-18, has a target to reduce under-nutrition and low birth-weight by 2 per cent each year.
- It will strive to achieve reduction in stunting from 38.4 per cent as per the National Family Health Survey-4 to 25 per cent by 2022.
- It also aims to bring down anaemia among young children, women and adolescent girls by three per cent per year.
- Under NNM, the ministries of women and child development, health and family welfare, and water and sanitation will work together.
- The mission will form an apex body that would fix targets and monitor, supervise and guide nutrition-related interventions across the ministries.
- The mission would include several components like an ICT (information and communications technology)-based real-time monitoring system, incentivizing of states and Union territories to meet their targets, social audits, and setting up of nutrition resource centres.
- Anganwadi workers will also be offered incentives for using IT-based tools such as smart phones.
- Aadhaar card is a mandatory requirement to avail the benefits of the mission.

Implementation strategy would be based on intense monitoring and **Convergence Action Plan** right upto the grass root level. NNM will be rolled out in three phases from **2017-18 to 2019-20**.

- NNM targets to reduce stunting, under-nutrition, anemia (among young children, women and adolescent girls) and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively.
- Although the target to reduce Stunting is atleast 2% p.a., Mission would strive to achieve reduction in Stunting from 38.4% (NFHS-4) to 25% by 2022 (Mission 25 by 2022).

SpiNNaker

SpiNNaker (Spiking Neural Network Architecture) is a massively parallel, manycore supercomputer architecture designed by the Advanced Processor Technologies Research Group (APT) at the School of Computer Science, University of Manchester.

HIGHLIGHTS

- The world's largest supercomputer SpiNNaker, was designed to work in the same way as the human brain has been switched on for the first time.
- The newly formed million-processor-core Spiking Neural Network Architecture (SpiNNaker) machine is capable of completing more than 200 million actions per second.

- In real time, it can model more biological neurons (basic brain cells in the nervous system that communicate by pure electro-chemical energy) than any other machine on the planet.
- It will help neuroscientists better understand how our own brain works.
- It also has simulated a region of the brain called the Basal Ganglia - an area affected in Parkinson's disease. Thus, it has massive potential for neurological breakthroughs in science such as pharmaceutical testing.
- Its power has recently been used to control a robot the spOmnibot, which uses the SpiNNaker system to interpret real-time visual information and navigate towards certain objects while ignoring others.

SpiNNaker is unique because, unlike traditional computers, it does not communicate by sending large amounts of information from point A to B via a standard network. Instead it mimics the massively parallel communication architecture of the brain, sending billions of small amounts of information simultaneously to thousands of different destinations.

SUPERCOMPUTERS IN INDIA

- India has around 11+ supercomputers.
- There are 5 supercomputers in the world top 500 list:
 1. Pratyush (Cray XC40) - Rank 39: As of January 2018, Pratyush is the fastest supercomputer in India. Pratyush is the fourth-fastest supercomputer in the world dedicated for weather and climate research, and follows machines in Japan, USA and the United Kingdom.
 2. Mihir (Cray XC40) - Rank 66
 3. InC1 - Lenovo C1040 - Rank 206
 4. SERC - Cray XC40 - Rank 327
 5. iDataPlex DX360M4 - Rank 496

Other Supercomputers

- **Aaditya**

IITM, Mumbai has a machine called Aaditya with a theoretical peak of 790.7 teraflop/s which is used for climate research and operational forecasting. It ranked 96th on the June 2013 list of the world's top 500 supercomputers.

- **PARAM Yuva II**

Unveiled on 8 February 2013, this supercomputer was made by Centre for Development of Advanced Computing. Will be used for research in space, bioinformatics, weather forecasting, seismic data analysis, aeronautical engineering, scientific data processing and pharmaceutical development.

SUPERCOMPUTERS

A supercomputer is a computer with a high level of performance compared to a general-purpose computer. Performance of a supercomputer is measured in floating-point operations per second (FLOPS) instead of million instructions per second (MIPS).

Supercomputers play an important role in the field of computational science, and are used for a wide range of computationally intensive tasks in various fields, including quantum mechanics, weather forecasting, climate research, oil and gas exploration, molecular modelling (computing the structures and properties of chemical compounds, biological macromolecules, polymers, and crystals), and physical simulations (such as simulations of the early moments of the universe, airplane and spacecraft aerodynamics, the detonation of nuclear weapons, and nuclear fusion).

WORLD DIABETES DAY

World Diabetes Day (WDD) was created by International Diabetes Federation (IDF) and the World Health Organization in response to growing concerns about the escalating health threat posed by diabetes.

- It is marked every year on 14 November, the birthday of Sir Frederick Banting, who co-discovered insulin along with Charles Best in 1922.
- The campaign promotes the importance of taking coordinated and concerted actions to confront diabetes as a critical global health issue.

MONOGENIC DIABETES

Monogenic diabetes is a group of disorders where mutation of a single gene causes diabetes; the three commonest forms being – Maturity Onset Diabetes of the Young (MODY), Neonatal Diabetes Mellitus (NDM) and Congenital Hypoglycaemia.

- Monogenic diabetes is usually passed on in an autosomal dominant gene, (a sex independent gene that's inherited from one of the parents). This means only one copy of the mutation is needed to develop diabetes.
- There is usually a strong family history of diabetes and in multiple generations, (although it's possible for someone to have a spontaneous mutation). Diagnosis, therefore, involves genetic testing for these diabetes-causing gene mutations that disrupt insulin production.
- Monogenic diabetes patients are also usually antibody negative, (though there are cases where low levels of antibodies have been detected). Once treatment for the diabetes begins, the antibodies usually resolve.
- In addition to blood sugar issues, some of the forms of Monogenic diabetes involve metabolic issues such as:
 - a) Growth problems.
 - b) Impaired glycogen storage in the liver.
 - c) Impaired fatty acid metabolism.
 - d) Exocrine pancreatic insufficiency.

SAIL TOGETHER

- A sailing expedition to retrace the maritime trade route of yesteryears between the Malabar Coast and the Persian Gulf has started from Kochi.
- The voyage has been planned over a distance of 1200 nm from Kochi to Muscat and back.
- The route honours the socio-cultural and maritime history that is shared among populations across the Indian Ocean as a result of this trade.

- The Royal Omani Vessel Zinat-al-Bihaar along with two Indian Naval Sailing Ships Sudharshini, Tarangini, with one each “Sea Rider” from Sri-Lanka, China, United Kingdom, Australia, Bangladesh and Maldives are participating in this ‘Sail Together’.

LEAP INITIATIVE

Leadership for Academicians Programme (LEAP) was recently launched by Ministry of Human Resource and Development.

HIGHLIGHTS

- It is a three weeks flagship leadership development training programme.
- The objective is mainly to train academic heads who are potentially likely to assume leadership roles in the future.
- Its focus group is second level academic functionaries in public funded higher education institutions.
- It would include both domestic and foreign training in managerial skills such as problem-solving, handling stress, team building work, conflict management, developing communication skills etc.
- The implementation will be through top ranked universities and top 100 global ranked foreign universities.

ARPIT INITIATIVE

Annual Refresher Programme in Teaching (ARPIT) was recently launched by Ministry of Human Resource and Development.

HIGHLIGHTS

- It is a unique initiative of online professional development of 15 lakh higher education faculty using the MOOCs platform **SWAYAM**.
- National Resource Centres (NRC) will be identified to prepare online training material.
- NRC will be in a mixed range of institutions such as, Central Universities, IISc, IUCAA, IITs, IISERs, NITs, IGNOU, State Universities, UGC’s Human Resource Development Centres (HRDCs) and National Institutes for Technical Teachers Training.
- It will focus on latest developments in the discipline, new & emerging trends, pedagogical improvements and methodologies for transacting revised curriculum.
- **SWAYAM** - Study Webs of Active learning for Young Aspiring Minds is a Massive Open Online Courses (MOOCs) platform launched to offer various online courses for school education and higher education.

PM-STIAC

Prime Minister has recently interacted with the members of Science, Technology and Innovation Advisory Council (PM-STIAC).

HIGHLIGHTS

- It is a 21-member panel, advise the Prime Minister on all matters related to S&T, innovation and monitor the implementation.

- It is chaired by government's Principal Scientific Advisor.
- It is expected to act as a high-level advisory body to several ministries and execute mission-oriented programmes.
- Secretaries of various scientific ministries such as education, environment and health would be 'special invitees' to the council meetings.
- Scientific Advisory Committees (SAC) - Cabinet and SAC-PM was dissolved and replaced by PM-STIAC.

SHRI RAMAYAN EXPRESS

The Shri Ramayana Express, a special tourist train to run on the Ramayana circuit to cover major spots related to the Hindu epic was recently flagged off from Safdarjung Railway Station in Delhi. The train will complete its journey till Rameswaram in Tamil Nadu, in 16 days covering all important destinations associated with the life of Lord Ram.

RAMAYAN CIRCUIT

- Ramayana Circuit is one of the fifteen thematic circuits identified for development under Swadesh Darshan scheme of Ministry of Tourism. Sitamarhi, Buxar, Darbhanga in Bihar are among the fifteen sites identified initially for development under this circuit in the country.
- The destinations are chosen according to the places where Lord Ram is believed to have travelled across India.
- The 15 destinations are — Ayodhya, Shringverpur and Chitrakoot in Uttar Pradesh, Sitamarhi, Buxar and Darbhanga in Bihar, Chitrakoot in Madhya Pradesh, Nandigram in West Bengal, Mahendragiri in Odisha, Jagdalpur in Chhattisgarh, Bhadrachalam in Telangana, Rameshwaram in Tamil Nadu, Hampi in Karnataka and Nashik and Nagpur in Maharashtra.

POINT CALIMERE SANCTUARY

The water quality at the Point Calimere Wildlife Sanctuary might be unsafe for avifauna to feed and breed

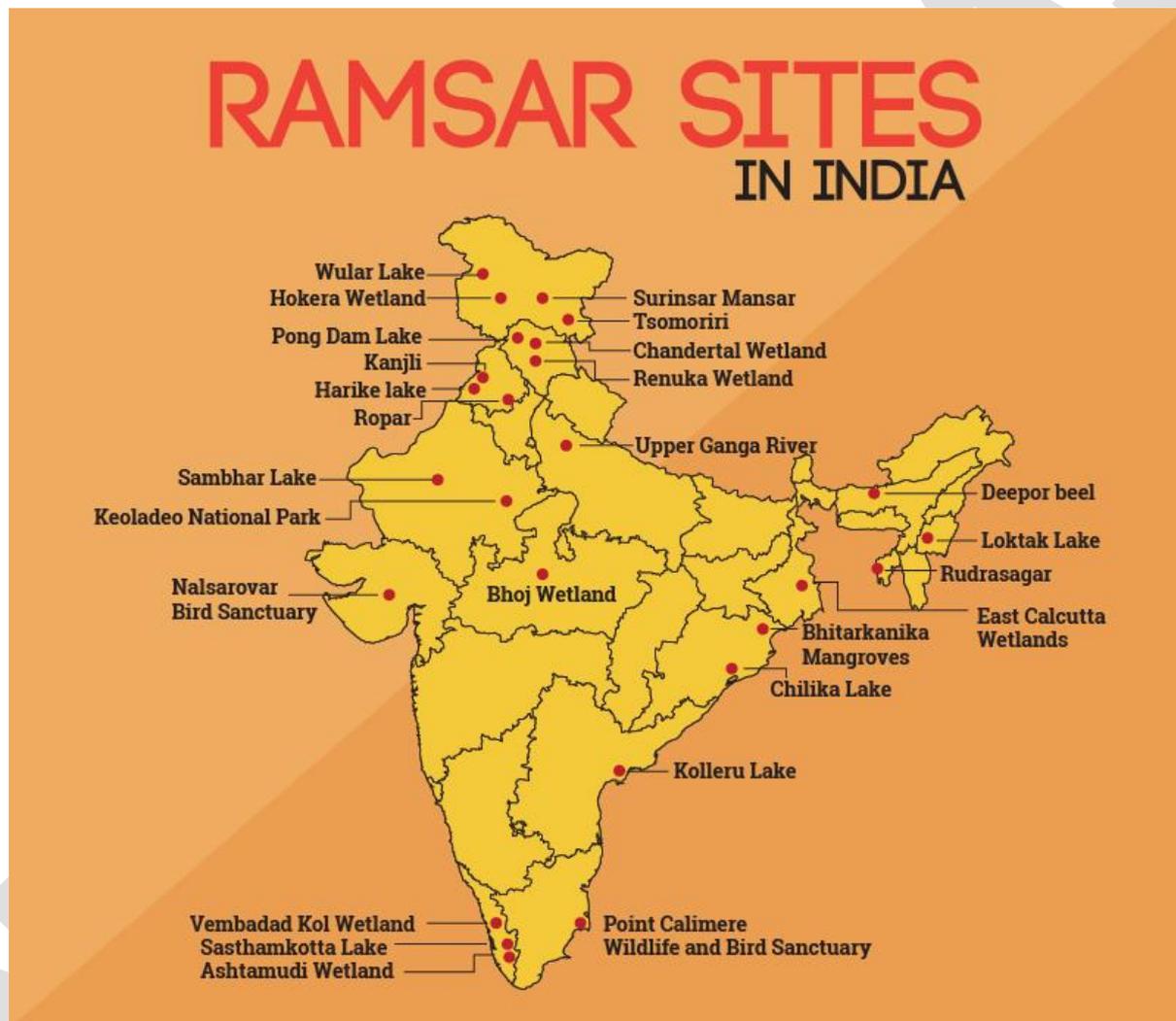
- It is the only Ramsar site in the State of Tamil Nadu.
- It is a mix of salt swamps, mangroves, backwaters, mudflats, grasslands and tropical dry evergreen forest.

CONCERNS

- Chemical companies and small-scale shrimp farms around the wetland have started to pose a threat to the biodiversity and ecosystem of the sanctuary.
- Atmospheric temperature, pH and salinity exceeded the permissible limits for ecologically sensitive zones.
- The presence of salt pans around the sanctuary lead to increase in salinity of the waters.
- Previous studies show that, high acidic or high alkaline water can affect the metabolic and developmental activities of wild animals and birds.
- Coliform microbial infection in the birds have also been reported which can cause a change in their natural behaviour and even affect their long-distance migration.

RAMSAR CONVENTION

- The Convention on Wetlands, called the Ramsar Convention, is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources.
- The Convention was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975.
- Since then, almost 90% of UN member states, from all the world's geographic regions, have acceded to become "Contracting Parties"
 - The convention entered into force in India on 1 February 1982.
 - India currently has 26 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 689,131 hectares.



ANTARCTIC CIRCUMPOLAR CURRENT

The Antarctic Circumpolar Current, or ACC is changing as the world's climate warms. Scientists are studying the current to find out how it might affect the future of Antarctica's ice sheets, and the world's sea levels.

HIGHLIGHTS

- The Antarctic Circumpolar Current, or ACC, is the strongest ocean current on our planet. It extends from the sea surface to the bottom of the ocean, and encircles Antarctica. **It is vital for Earth's health because it keeps Antarctica cool and frozen.**
- The ACC carries an estimated 165 million to 182 million cubic metres of water every second (a unit also called a "Sverdrup") from west to east, more than 100 times the flow of all the rivers on Earth. **It provides the main connection between the Indian, Pacific and Atlantic Oceans.**
- The tightest geographical constriction through which the current flows is Drake Passage, where only 800 km separates South America from Antarctica. While elsewhere the ACC appears to have a broad domain, it must also navigate steep undersea mountains that constrain its path and steer it north and south across the Southern Ocean.

Antarctic Circumpolar Current

- Antarctica is a frozen continent surrounded by icy waters. Moving northward, away from Antarctica, the water temperatures rise slowly at first and then rapidly across a sharp gradient. It is the ACC that maintains this boundary.
- The ACC is created by the combined effects of strong westerly winds across the Southern Ocean, and the big change in surface temperatures between the Equator and the poles.
- Ocean density increases as water gets colder and as it gets more salty. The warm, salty surface waters of the subtropics are much lighter than the cold, fresher waters close to Antarctica. The depth of constant density levels slopes up towards Antarctica. The westerly winds make this slope steeper, and the ACC rides eastward along it, faster where the slope is steeper, and weaker where it's flatter.

DEVELOPMENT OF NORTH EAST CIRCUITS

Two important projects under Swadesh Darshan Scheme of Ministry of Tourism, Government of India have been inaugurated at PTSO Lake in Tawang, Arunachal Pradesh.

These projects are "Development of North East Circuits: Bhalukpong- Bomdila – Tawang Project & Nafra- Seppa- Pappu, Pasa, Pakke Valleys- Sangdupota- New Sagalee- Ziro- Yomcha Project".

SWADESH DARSHAN SCHEME

The Tourism Ministry had launched 'Swadesh Darshan' scheme with an objective to develop theme-based tourist circuits in the country. These tourist circuits will be developed on the principles of high tourist value, competitiveness and sustainability in an integrated manner.

- The scheme is 100% centrally funded for the project components undertaken for public funding.
- To leverage the voluntary funding available for Corporate Social Responsibility (CSR) initiatives of Central Public Sector Undertakings and corporate sector.
- Funding of individual project will vary from state to state and will be finalised on the basis of detailed project reports prepared by PMC (Programme Management Consultant).
- A National Steering Committee (NSC) will be constituted with Minister in charge of M/O Tourism as Chairman, to steer the mission objectives and vision of the scheme.
- A Mission Directorate headed by the Member Secretary, NSC as a nodal officer will help in identification of projects in consultation with the States/ UTs governments and other stake holders.

- PMC will be a national level consultant to be appointed by the Mission Directorate.

13TH EAST ASIA SUMMIT

13th East Asia Summit is being held in Singapore. India has been participating in the EAS since its very inception in 2005.

EAST ASIA SUMMIT

- The East Asia Summit (EAS) is a forum held annually by leaders of, initially, 16 countries in the East Asian, Southeast Asian and South Asian regions. Membership expanded to 18 countries including the United States and Russia at the Sixth EAS in 2011.
- EAS meetings are held after annual ASEAN leaders' meetings. The first summit was held in Kuala Lumpur, Malaysia on 14 December 2005.
- EAS is an initiative of ASEAN and is based on the premise of the centrality of ASEAN.
- EAS has evolved as a forum for strategic dialogue and cooperation on political, security and economic issues of common regional concern and plays an important role in the regional architecture.
- There are six priority areas of regional cooperation within the framework of the EAS. These are – ***Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity***. India endorses regional collaboration in all six priority areas.

BACKGROUND

The concept of an East Asia Grouping was first promoted in 1991 by the then Malaysian Prime Minister, Mahathir bin Mohamad. The final report of the East Asian Study Group in 2002, established by the ASEAN+3 countries (i.e. China, Japan and ROK), recommended EAS as an ASEAN led development limited to the ASEAN +3 countries.

However, the ASEAN Ministerial Meeting (AMM) held in Vientiane on July 26, 2005 welcomed the participation of ASEAN, China, Japan, Republic of Korea, Australia, India and New Zealand, in the first EAS. USA and the Russian Federation were formally included as members of the EAS at the 6th EAS held in Bali, Indonesia on 19 November 2011.

WORLD CUSTOMS ORGANISATION MEET

A regional meeting of World Customs Organisation (WCO) was held recently in Jaipur, Rajasthan.

- The meeting deliberated upon various issues including the steps required for the capacity building and reforms in customs.
- It also discussed and deliberated upon amended Kyoto protocol, digital customs, e-commerce among other issues.
- Summary of various efforts made by National Trade Facilitation Committee (NTFC) for trade facilitation was also tabled in the meeting.

WORLD CUSTOMS ORGANISATION

- WCO is independent intergovernmental body whose mission is to enhance effectiveness and efficiency of Customs administrations.

- It was established in 1952 as Customs Co-operation Council (CCC).
- It is the only international organization with competence in Customs matters and is considered as voice of international Customs community.
- It is headquartered in Brussels, Belgium.
- It represents 182 Customs administrations across the globe that collectively process approximately 98% of world trade.
- It plays leading role in discussion, development, promotion and implementation of modern customs systems and procedures. It offers range of Conventions and other international instruments, as well as technical assistance and training services to its members. It also actively supports its members in their endeavours to modernize and build capacity within their national Customs administrations.
- It aims to enhance efficiency and effectiveness of member customs administrations and assist them to contribute successfully to national development goals, particularly revenue collection, national security, trade facilitation, community protection, and collection of trade statistics.

NIPUN PORTAL

Delhi Police has launched an e-learning portal 'Nipun' to impart training and provide up to date information to police officers.

NIPUN

- The initiative is aimed at imparting in-service online training and information to police personnel through specialised courses available online which have been designed by experts in various fields.
- The online courses on this portal have been designed in collaboration with University Grant Commission (UGC), FICCI, NHRC, NCPCR and Janaki Devi Memorial College, Delhi University under **project CLAP "The Collaborative Learning and Partnership"**.
- It will have online courses and resources on law, standing orders, investigation checklists, forms for case files, latest High Court and Supreme Court rulings. It is envisioned that Investigating Officers (IOS) will be able to take benefit of this information during course of their duty or while handling case.
- Through this portal Delhi Police officers can now access information by just logging on the portal. They can take course from anywhere at any time. It will make easier for the police officer to upgrade their skills and re-enforce their learning while balancing training time along with their daily routine work.

CHERRY BLOSSOM FESTIVAL

India International Cherry Blossom festival scheduled held from November 14 to 17 in Shillong, Meghalaya.

HIGHLIGHTS

- This festival is the world's only autumn cherry blossom festival.

- The festival organized by Government of Meghalaya's Forest & Environment Department as well as by the Institute of Bioresources & Sustainable Development (IBSD) in collaboration with Indian Council for Cultural Relations (ICCR).
- The aim of the festival is to celebrate the unique autumn flowering of Himalayan Cherry Blossoms. The Cherry Blossom tree flowers only for a short period in a year.

The International Cherry Blossom Festival is held in Macon, Georgia every spring. Macon is known as the "Cherry Blossom Capital of the World."

75TH ANNIVERSARY OF HOSTING OF TRICOLOUR AT PORT BLAIR

The Union Ministry of Finance has decided to release a Rs 75 commemorative coin on the occasion of 75th anniversary of the hoisting of Tricolour for the first time by Netaji Subhash Chandra Bose at Port Blair.

BACKGROUND

- During his visit to Andaman in on December 30, 1943, Subhash Chandra Bose hoisted the Tricolor for the first time at Cellular Jail of Port Blair, much before India attained Independence declaring the island as the free territory from the British rule.
- On the same occasion, he announced the freedom of Andaman & Nicobar Islands, the first Indian Territory, from the British rule. The island at that time was liberated from British rule by Japan which captured it during the World War – II.
- Bose named Andaman Island as Shaheed and Nicobar Island as Swaraj and appointed INA General AD Loganathan as the governor of the Islands. Azad Hind Government was not merely a Government in Exile anymore but had its own land, own currency, civil code and stamps.

MEGA FOOD PPARK

Maharashtra's second Mega Food Park has been opened in Aurangabad District. It is promoted by M/s Paithan Mega Food Park Pvt Ltd, the Park.

A 3rd Mega Food Park has been sanctioned by the Ministry in Maharashtra and is under implementation in Wardha District while the first Park was inaugurated on 1st of March 2018 in Satara district.

MEGA FOOD PARKS

- Ministry of Food Processing Industries is implementing Mega Food Park Scheme in the country.
- The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastages, increasing farmers' income and creating employment opportunities particularly in rural sector.
- These food parks give a major boost to the food processing sector by adding value and reducing food wastage at each stage of the supply chain with particular focus on perishables.
- A maximum grant of R50 crore is given for setting up a MFP, in minimum 50 acres of contiguous land with only 50% contribution to the total project cost.
- The Scheme has a cluster-based approach based on a hub and spokes model. It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary

Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure at Central Processing Centre (CPC).

- The PPCs are meant for functioning as a link between the producers and processors for supply of raw material to the Central Processing Centres.
- CPC has need based core processing facilities and basic enabling infrastructure to be used by the food processing unit setup at the CPC. The minimum area required for a CPC is 50 acres.
- The scheme is demand-driven and would facilitate food processing units to meet environmental, safety and social standards.

EASE OF DOING AGRIBUSINESS INDEX

The centre is planning to develop an online dashboard to track State performances and the Index will be rolled out in January 2019.

- The new Ease of Doing Agri-Business Index will rank the States on the basis of reforms in the sector as well as their investment in agriculture, increased productivity, reduction of input costs, and risk mitigation measures.
- The Agri Ministry will consider rewarding the higher performing States both in absolute and incremental terms by linking the performance with allocation from flexi funds made available in various flagship.
- The proposed index will focus on reforms, with marketing reforms (25%) and governance and land reforms (20%) carrying almost half of the weight of the parameters in its scoring system.

PARAMETERS

- The parameters are process-oriented, and are meant to evolve as and when new reforms or initiatives are proposed.
- Another major parameter which States will be rated on is their success in reducing the cost of farm inputs (20%) by distributing soil health cards and encouraging organic farming and micro-irrigation.
- Risk mitigation measures such as crop and livestock insurance carry a 15% weightage, while increased productivity and investment in agriculture carry a 10% weight each.

KILOGRAM

Over the centuries, it has been defined and redefined, with a standard in place since 1889. Called Le Grand K, a cylinder of platinum-iridium is locked up in a jar at the International Bureau of Weights and Measures (BIPM) in Paris. For nearly 130 years, the mass of this cylinder has been the international standard for the kilogram.

Redefining what constitutes 1 Kg

- Representatives from 57 countries will vote in Versailles, France, to redefine SI, or the International System of Units.
- The kilogram's definition will be based on a concept of physics called the **Planck constant**.
- Reports worldwide suggest that the new definition is set to be voted in.

Why redefine the fundamental Unit

- Scientists want to create a measurement system that is based entirely on unchanging fundamental properties of nature.
- Le Grand K, the “international prototype kilogram”, is the last physical object used to define an SI unit.
- It is far from unchanging as it gets dusty and is affected by the atmosphere, and when cleaned, it is vulnerable to change.
- The Planck constant, on the other hand, is just that, a constant, if a complex one — it is a quantity that relates a light particle’s energy to its frequency.
- It is described in a unit that has the kilogram built into it.

The kilogram comes next

- The Planck constant, which it is based on, is usually measured in joule seconds, but this can also be expressed as kilogram square metres per second. We know what a second and a metre is from the other definitions.
- So by adding these measurements, along with an exact knowledge of Planck’s constant, we can get a new, very precise definition of the kilogram.

Time measurement standard

- The second was initially based on the length of a day of 24 hours; in 1956, the standard was set to a fraction of the solar year.
- It was only in the middle of the 20th century that the more complex definitions began to be adopted. The Indian measurement of time, for instance, is widely recognised as the oldest in the world.
- It was only in 1875, with the creation of BIPM, that measurement began to be standardised internationally.
- A treaty called **Metre Convention** was signed among 60 countries, leading to international standards.
- The BIPM reports to the General Conference on Weights and Measures (CGPM), to which **India became a signatory in 1957**. The SI system was adopted in 1960.

GLOBAL STUDY ON PNEUMONIA

More than 17 lakh children in India are likely to die of pneumonia by 2030, despite the infection being easily treatable, according to a global study.

HIGHLIGHTS

- The study, based on an analysis by Johns Hopkins University and the global charity organisation Save the Children, found that worldwide, pneumonia is likely to kill nearly 1.1 crore children under five by 2030. Nigeria is likely to bear the highest burden with 17.3 lakh predicted child deaths, followed closely by India with 17.1 lakh.
- The forecasts are based on a model developed by Johns Hopkins researchers called **the Lives Saved Tool (LiST)**.
- It shows that more than 40 lakh of 1.1 crore deaths — more than a third — could be easily averted with concerted action to improve rates of vaccination, treatment and nutrition.

- Scaling up vaccination coverage to 90% of children under age five could save 6.10 lakh lives; providing cheap antibiotics could save 19 lakh; and ensuring children have good nutrition could save 25 lakh. If all three overlapping interventions were carried out by 2030, the model suggests a total of 41 lakh deaths could be averted.

PNEUMONIA

- Pneumonia is an inflammatory condition of the lung affecting primarily the small air sacs known as alveoli.
- Typically, symptoms include some combination of productive or dry cough, chest pain, fever, and trouble breathing. Severity is variable.
- Pneumonia is usually caused by infection with viruses or bacteria and less commonly by other microorganisms, certain medications and conditions such as autoimmune diseases.

GLOBAL HUNGER INDEX

spite being one of the fastest growing economies in the world, India has been ranked at 103 out of 119 countries, with hunger levels categorised as “serious”, in the Global Hunger Index 2018.

HIGHLIGHTS

- In July, three girls died of starvation resulting from prolonged malnutrition in the national capital Delhi, which has a high per capita income.
- India’s child malnourishment level is not only the highest in the world but varies considerably across States.
- As per the National Family Health Survey-2016, the proportion of stunted (low height for age) children under five is significantly higher (38.4%) than global (22.9%) averages. The underweight (low weight for age) children rate (35.7%) is a lot higher than the global average (13.5%) too.
- India is home to over 53.3 million stunted, 49.6 million underweight and 29.2 million wasted (low weight for height) children under five.

MAJOR CHALLENGES

- Growing prosperity has hardly made any significant dent in chronic malnutrition of children.
- Faster economic growth has enormous benefits, but it is by no means sufficient and sustainable if millions of children remain undernourished, as it not only impacts early childhood health and imposes disease burden but also affects education, wages and productivity when they grow up, which will impact India’s growth.
- **World’s hungry population on the rise again, says U.N. report.**
- The **low income and Empowered-Action-Group (EAG) States** face major challenges to improve malnutrition, but, two EAG States, Chhattisgarh and Odisha, have performed better on this front compared to Gujarat and Maharashtra where per capita income is almost double.
- Further, tribals, rural, poor and illiterate mothers’ children are badly off in so-called developed States of Haryana, Gujarat and Punjab. These groups are also affected in poorer States of U.P., Bihar, Jharkhand and Madhya Pradesh. Around two-thirds of stunted/underweight children are from 200 districts of both less developed and developed States.

AGRICULTURE V. HUNGER

Another prominent idea is the need to link agriculture and nutrition, as agriculture provides answers to most nutrition problems.

- Our estimates, however, show malnutrition continues to be high in agricultural surplus States like Haryana (34% stunting and 29.5% underweight).
- Worryingly, malnutrition in some of its agriculturally-developed districts (Karnal, Panipat, Sonipat, Rohtak as well as in Gurugram) is even higher than the average of Odisha.
- Recently, Madhya Pradesh has registered double-digit growth in food grain production making it one of the wheat granaries of India, but acute malnutrition is still critical in most of its districts with a high proportion of underweight (42.8%) and stunted children (41.9%).
- A majority of children across districts in Tamil Nadu consume a reasonably highly diversified food, leading to lower percentage of stunted/underweight children across districts.
- Children in a majority of districts in West Bengal, Odisha, Kerala and Karnataka consume mediocre level of food items and malnutrition is relatively lower than in Rajasthan, U.P., Jharkhand, M.P., Gujarat, Bihar and Haryana (children in many of their districts consume less diversified food).
- The diversified food intake is very low in a majority of Indian districts; just 28% of children consumed over five items of the total 19 food items.

WAY FORWARD

- An inclusive and holistic approach, including controlling/regulating food price, strengthening the public distribution system (PDS) and income support policies for making food cheaper are important steps.
- The ICDS was a high impact nutrition intervention, but its universal availability and quality are questionable due to poor functioning. The government must broaden the ICDS programme by ensuring diversity in food items in worst-hit districts.
- The launch of the National Nutrition Mission as a strategy to fight maternal and child malnutrition is a welcome step towards achieving the targets of underweight and stunted children under five years from 35.7% to 20.7% and from 38.4% to 25% respectively by 2022.

GLOBAL HUNGER INDEX

- The Global Hunger Index (GHI) is designed to comprehensively measure and track hunger globally and by country and region.
- Calculated each year by the **International Food Policy Research Institute (IFPRI)**, the GHI highlights successes and failures in hunger reduction and provides insights into the drivers of hunger.
- By raising awareness and understanding of regional and country differences in hunger, the GHI aims to trigger actions to reduce hunger.
- **IFPRI's Strategy Refresh 2018–2020** builds on the strong base of work developed under the Institute's 2013–2018 strategy and focuses on five strategic research areas:
 1. Fostering Climate-Resilient and Sustainable Food Supply.
 2. Promoting Healthy Diets and Nutrition for All.

3. Building Inclusive and Efficient Markets, Trade Systems, and Food Industry.
4. Transforming Agricultural and Rural Economies.
5. Strengthening Institutions and Governance.

DECLINING POLLINATORS

Across India's agrarian plains, plantations and orchards, millions of birds, bats and insects toil to pollinate crops. However, many of these thousands of species may be in dangerous decline.

BACKGROUND

- In 2015, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) found that pollinators lead to huge agricultural economic gains.
- The report estimated pollinator contribution in India to be \$0.831-1.5 billion annually for just six vegetable crops. This is an underestimation considering that nearly 70% of tropical crop species are dependent on pollinators for optimal yields.

CONCERN

- The decline of moths, bees, butterflies, hoverflies and other pollinators is undeniably linked to human activity: large tracts of natural habitats have been cleared for monoculture cultivation, while the use of pesticides and fertilisers is pushing out nature's little helpers.
- In a series of studies at the University of Calcutta, researchers have showed that native Indian bees, when exposed to multiple pesticides, suffer from memory and olfactory impairment, lower response rates, and oxidative stress which damages cells.
- Between 1964 and 2008, there was a 40-60% growth in relative yields of pollinator-dependent crops, while pollinator-independent crops such as cereals and potatoes saw a corresponding 140% rise in yields.
- In Kashmir, researchers have pinned lowering yields of apple trees on the declining frequency of bee visits.
- In north India, lowering yields of mustard cultivation may be caused by disappearing pollinators.

WAY FORWARD

Apart from promoting organic farming and lowering pesticide usage, landscape management is key. The EU Pollinators' Initiative adopted in June can provide pointers to India, particularly a policy of direct payment support to farmers to provide buffer strips for pollinators for nectar- and pollen-rich plants. India has millions of hectares of reserve forests, some of which have been converted to pulpwood plantations. Much of this can be restored to become thriving homes for pollinators. The same can be done in gram panchayat levels. Fallow areas and government land can be used to plant flowering species for pollinators.

KAMBALA

The coastal districts of Dakshina Kannada and Udupi are all set for the kambala. The races would be held under the auspices of the District Kambala Committee.

KAMBALA

- It is an annual buffalo race held in the southwestern Indian state of Karnataka.

- Traditionally, it is sponsored by local Tuluva landlords and households in the coastal districts of Dakshina Kannada and Udupi, a region collectively known as Tulu Nadu.
- Kambala is traditionally a simple sport which entertains rural people of the area.
- The kambala racetrack is a slushy paddy field and the buffaloes are driven by a whip-lashing farmer.
- There is also a ritualistic aspect, as farmers race their buffaloes to give thanks for protecting them from diseases.

UNESCO GLOBAL EDUCATION MONITORING REPORT 2019

UNESCO global education monitoring report 2019 has been released. The 2019 GEM Report continues its assessment of progress towards Sustainable Development Goal 4 (SDG 4) on education and its ten targets, as well as other related education targets in the SDG agenda.

HIGHLIGHTS

The Report examines the education impact of migration and displacement across all population movements: within and across borders, voluntary and forced, for employment and education. It also reviews progress on education in the 2030 Agenda for Sustainable Development.

- **Literacy levels in rural households of India dip with seasonal migration:**
 1. In India, 10.7 million children aged 6 to 14 lived in rural households with a seasonal migrant in 2013.
 2. About 28% of youth aged 15 to 19 in these households were illiterate or had not completed primary school, compared to 18% of the cohort overall.
 3. About 80% of seasonal migrant children in seven cities lacked access to education near work sites, and 40% are likely to end up in work rather than education, experiencing abuse and exploitation.
- **Inter-State Migration:**
 1. Inter-State migration rates have doubled between 2001 and 2011.
 2. An estimated 9 million migrated between States annually from 2011 to 2016.
 3. The report also warns of the negative impact on education for children who are left behind as their parents migrate.
- **The worst hit- Construction labours**
 1. The construction sector absorbs the majority of short-term migrants.
 2. A survey in Punjab state of 3,000 brick kiln workers in 2015-16 found that 60% were inter-State migrants.
 3. Between 65% and 80% of all children aged five to 14 living at the kilns worked there seven to nine hours per day.
 4. About 77% of kiln workers reported lack of access to early childhood or primary education for their children.

ECO SENSITIVE ZONES

The National Green Tribunal (NGT) has asked the Ministry of Environment, Forests and Climate Change (MoEF&CC) to consider declaring all elephant corridors in the country as eco-sensitive zones.

NGT has given two weeks time to the Ministry to look into the issue and to proceed in the matter for declaration of such areas as eco sensitive zones.

ECO SENSITIVE ZONE

- Eco-Sensitive Zones (ESZs) or Ecologically Fragile Areas (EFAs) are areas notified by the Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India around Protected Areas, National Parks and Wildlife Sanctuaries.
- The purpose of declaring ESZs is to create some kind of “shock absorbers” to the protected areas by regulating and managing the activities around such areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.
- The width of the ESZ and type of regulation may vary from protected area to area. However, as a general principle, the width of the ESZ could go up to 10 kms around the protected area.
- It also prohibits tourism activities like flying over protected areas in an aircraft or hot air balloon, and discharge of effluents and solid waste in natural water bodies or terrestrial areas.
- Felling of trees, drastic change in agriculture systems and commercial use of natural water resources, including groundwater harvesting and setting up of hotels and resorts, are the activities regulated in the areas.
- Activities permitted in the areas include ongoing agriculture and horticulture practices by local communities, rainwater harvesting, organic farming, adoption of green technology and use of renewable energy sources.

“NSE goBID”

The National Stock Exchange (NSE) has launched an app and web-based platform, ‘NSE goBID’, for retail investors to buy government securities.

HIGHLIGHTS

- The app would allow investors to invest in treasury bills (T-Bills) of 91 days, 182 days and 364 days and various government bonds from one year to almost 40 years.
- The retail investors would be able to make payment directly from their bank accounts using Unified Payments Interface (UPI) and Internet banking.
- While investment could be done almost every week after a one-time registration, the app would be available to all investors registered with NSE’s trading members.

TREASURY BILLS

- Treasury Bills are short term (up to one year) borrowing instruments of the Government of India which enable investors to park their short-term surplus funds while reducing their market risk.
- They are auctioned by Reserve Bank of India at regular intervals and issued at a discount to face value.

- T-bills are used in managing short term liquidity needs of the government.
- 91-day T-bills are auctioned every week on Wednesday and 182-day and 364-day T-bills are auctioned every alternate week on Wednesdays.
- Treasury bills are issued at a discount and are redeemed at par.

AIR SEWA 2.0

The Ministry of Civil Aviation has introduced the upgraded version of AirSewa 2.0 web portal and mobile app to provide superior user experience with enhanced functionalities to air travellers.

HIGHLIGHTS

- Major improvements include features such as secure sign-up and log-in with social media, chatbot for travellers support, improved grievance management including social media grievances, real-time flight status and details flight schedule.
- The web portal and application will help to capture air travellers' feedback for policy interventions.
- Further upgrades of to AirSewa were also being planned. which This would include Digi Yatra registration, airport maps, BHIM payment integration and grievance escalation and transfer.

INDIRA GANDHI PRIZE FOR PEACE, DISARMAMENT & DEVELOPMENT

Centre for Science and Environment (CSE), the New Delhi (India)-based independent research and advocacy think tank, has been named the recipient of the prestigious Indira Gandhi Prize for Peace, Disarmament and Development for the year 2018.

INDIRA GANDHI PRIZE FOR PEACE, DISARMAMENT & DEVELOPMENT

- It is the prestigious award accorded annually by Indira Gandhi Memorial Trust to individuals or organisations in recognition of creative efforts toward promoting international peace, development and a new international economic order; ensuring that scientific discoveries are used for the larger good of humanity, and enlarging the scope of freedom.
- The prize carries a cash award of 2.5 million Indian rupees and a citation.
- A written work, in order to be eligible for consideration, should have been published.
- The panel constituted by the Indira Gandhi Memorial Trust consists of prominent national and international personalities including previous recipients.

APEC SUMMIT 2018

The 2018 APEC summit was held recently held in Papua New Guinea.

The leaders failed to agree on a communique at a summit in Papua New Guinea for the first time in their history as deep divisions between the United States and China over trade and investment stymied cooperation.

APEC

- The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.

- 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.
- APEC ensures that goods, services, investment and people move easily across borders. Members facilitate this trade through faster customs procedures at borders; more favourable business climates behind the border; and aligning regulations and standards across the region.
- APEC's 21 members economies are:
Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States of America; Viet Nam.

DIETARY GUIDELINES IN KERALA

Kerala is planning to launch an initiative to enforce dietary guidelines, involving the reduction of trans fatty acids (TFAs), salt and sugar in commercially available foods in the State.

HIGHLIGHTS

- The initiative, with technical support from the World Bank, WHO and the Food Safety and Standards Authority of India (FSSAI), is being launched as unhealthy diet is pushing up metabolic syndrome and premature deaths due to non-communicable diseases (NCDs).
- Latest estimates put the prevalence of metabolic syndrome (MS) in Kerala between 24-33%, indicating that one in three or four persons — predominantly women — have this condition.
- Metabolic syndrome (MS) is a cluster of metabolic abnormalities — high blood pressure, high blood sugar, abdominal obesity, abnormal cholesterol or triglyceride levels — that occur together, raising risk of heart disease, stroke and diabetes.

TRANS FATTY ACID

- An unhealthy substance that is made through the chemical process of hydrogenation of oils.
- Hydrogenation solidifies liquid oils and increases the shelf life and the flavor stability of oils and foods that contain them.
- Trans fatty acids are found in vegetable shortening and in some margarine, crackers, cookies, and snack foods. Trans fatty acids are also found in abundance in many deep-fried foods.
- Trans fatty acids both raise the 'bad' (LDL) cholesterol and lower the 'good' (HDL) cholesterol levels in blood, markedly increasing the risk of heart disease.
- Also known as trans fat.

FACTS

- ❖ **Young Champions Award:** NITI Aayog's Atal Innovation Mission (AIM) and UNICEF India have announced "Young Champion Award". The awards were presented to the top six most innovative solutions which were shortlisted through the Atal Tinkering Marathon.
- ❖ IndusInd Bank launches India's first interactive credit card with buttons. The card empowers customers with a choice of payment options such as EMI, Reward Points or Credit at the push of a button at the point of sale. The card has been created in partnership with Dynamics Inc, which is headquartered in Pittsburgh USA, and designs and manufactures intelligent, battery powered payment cards.
- ❖ **#PowerOf18 campaign:** It is a campaign launched by Twitter India aimed at encouraging youth to contribute in public debates and participate in civic engagement for the 2019 general elections. The campaign will serve as resource for young Indians to find more information about elections, support social causes they are passionate about and join public conversation.
- ❖ **EXERCISE SAMUDRA SHAKTI:** *Indian Navy – Indonesian Navy Bilateral Exercise 'Samudra Shakti' scheduled from 12 to 18 Nov 18.* The aim of the exercise is to strengthen bilateral relations, expand maritime co-operation, enhance interoperability and exchange best practices.
- ❖ **EXERCISE INDRA 2018:** *The joint military exercise between Indian and Russia EXERCISE INDRA 2018 on combating insurgency under the aegis of United Nations (UN) conducted at Babina Field Firing Ranges, Babina Military Station from 18 November 2018.* The tenth exercise in the series of **Exercise INDRA** is aimed at sending a strong message to the world with an intent of appreciation of interoperability between Indian and Russian Armies for joint tactical level operations in the peace keeping / enforcement environment under the aegis of UN.
- ❖ **Igla-S missile:** is a Russian man-portable Surface to Air missile. Russia has recently bagged the contract of Indian Army's bid for air defence missile.
- ❖ **My Son temple complex:** President of India has visited the My Son temple complex in Kwangan province in Vietnam. A UNESCO World Heritage Site, the My Son temple complex is among Vietnam's most cherished cultural treasures.
- ❖ India's first fully equipped dedicated elephant hospital has been established in Farah block of Mathura, complete with wireless digital X-Ray, laser treatment and dental X-ray facilities. The 'jumbo' hospital is the result of a collaborative effort between the Uttar Pradesh Forest Department and conservation NGO Wildlife SOS.