

CURRENT AFFAIRS MISCELLANEOUS

Compensatory Afforestation Management and Planning Authority (CAMPA) Bill

Parliament passed the crucial Compensatory Afforestation Management and Planning Authority (CAMPA) Bill with the Rajya Sabha clearing the legislation unanimously.

Background:

The CAMPA Bill seeks to establish institutions for managing funds that accrue to the government as compensation for destruction of forests due to industrial or infrastructure projects. Over the last one decade, more than Rs 42,000 crore has been collected as compensation for destroyed forests. This money, currently lying with the Centre, belongs to states, but its disbursement had been blocked by the Supreme Court till the institutional mechanisms, which are sought to be built by the CAMPA Bill, were created.

Provisions:

- The CAMPA Bill seeks to create a Compensatory Afforestation Management and Planning Authority (CAMPA) and a Compensatory Afforestation Fund (CAF).
- These Funds will receive payments for: (i) compensatory afforestation, (ii) net present value of forest (NPV), and (iii) other project specific payments. The National Fund will receive 10% of these funds, and the State Funds will receive the remaining 90%.
- These Funds will be primarily spent on afforestation to compensate for loss of forest cover, regeneration of forest ecosystem, wildlife protection and infrastructure development.
- The CAMPA authority is supposed to manage the funds collected as compensation for diversion of forest land for setting up industries, factories or infrastructure projects.
- The Bill provides for establishment of a permanent institutional framework at the Central at each State and Union territory to ensure utilization of these funds in an expeditious and transparent manner.
- The Bill also seeks to transfer these amounts to dedicated, non-lapsable interest bearing funds under public account of the Union of India and each State so as to bring these funds within the overall oversight and control of the Parliament and the State legislatures, without impairing easy availability of these funds to utilise the same for the purpose for which it has been realised.
- The Bill also seeks to provide for constitution of a multi-disciplinary Monitoring Group to monitor activities undertaken from these funds. The Bill also provides for annual audit of the accounts by the C&AG.

Positives:

- The passing of the Bill has ended the long era of ad-hocism and will help the Centre and State Governments to utilise these amounts in a planned manner.

- It will make available more than Rs. 6,000 crores per annum to the States/UTs for conservation, protection, improvement and expansion of forest and wildlife resources of the country.
- Availability of these amounts will not only help the States/UTs and local communities to ensure better management of their forest resources but will also result in creation of more than 15 crores man-days of direct employment.
- A major part of these amounts will be used to restock and improve quality of degraded forests, which constitutes more than 40 % of the total forest cover of the country.
- Rules to be framed by the Central Government in consultation with the States/ UTs will provides for use of native species in afforestation activities to be undertaken from these funds.
- Majority of the employment will be generated in tribal dominated and backward areas of the country.
- Apart from creation of direct employment, utilisation of these amounts will result in increased availability of timber and various other non-timber forest products, and will thus help in improvement of the overall living standards of the forest dependent communities.

Concerns:

- The Bill establishes the Funds for compensatory afforestation and forest conservation. However, there are several factors (other than administration of funds) which affect compensatory afforestation and forest conservation. These factors are mentioned below:
 - i. A 2013 CAG report noted that state forest departments lack the planning and implementation capacity to carry out compensatory afforestation and forest conservation. With the share of funds transferred to states increasing from 10% to 90%, effective utilisation of these funds will depend on the capacity of state forest departments.
 - ii. Procuring land for compensatory afforestation is difficult as land is a limited resource, and is required for multiple purposes, such as agriculture, industry, etc. This is compounded by unclear land titles, and difficulties in complying with procedures for land use.
- Under the bill, the forest bureaucracy dominates both the National and State level CAMPA Authorities with no representation to tribals and forest dwellers.
- It also doesn't address the key issue of compensating tribals and forest dwellers for the loss of their forests – a recommendation made by both the Kanchan Chopra Committee constituted by the Supreme court and the IIFM Committee for revising Forest net present value (NPV). Though The government has assured the House that the rights of tribals and gram sabhas will be taken care of when rules are framed.

South China Sea Dispute

Recent PCA Ruling:

- The Court ruled on several South China Sea issues, based on a case filed by the Philippines against the People's Republic of China (PRC). On issue after issue, the Court came down overwhelmingly in favor of the Philippine position.
- Perhaps most centrally, the Court concluded that China's "9-dash line," which Beijing regularly references with regard to its claims in the South China Sea, does not grant it historic claims to the resources in those waters.
- It also said China had broken international law by endangering Philippine ships and damaging the marine environment.
- This could open the way for other Asian states to challenge China's claims.
- China strongly condemned the verdict, declaring it null and void, and questioned the legality of the tribunal itself.

What is the dispute

- It is a dispute over territory and sovereignty over ocean areas, and the **Paracels** and the **Spratlys** - two island chains claimed in whole or in part by a number of countries.
- China, Vietnam, the Philippines, Taiwan, Malaysia and Brunei all have competing claims. China has backed its expansive claims with island-building and naval patrols.
- Alongside the fully fledged islands, there are dozens of rocky outcrops, atolls, sandbanks and reefs, such as the **Scarborough Shoal**.

"Nine-dash line"

- China claims by far the largest portion of territory - an area defined by the "nine-dash line" which stretches hundreds of miles south and east from its most southerly province of Hainan.
- China has never clarified the line's exact coordinates. But it sweeps across waters — and some small islands — that are claimed by five other nations. It seems to go many miles beyond what is allowed under the United Nations treaty on maritime territorial issues, which China signed.

Significance of South China Sea

- Although largely uninhabited, the Paracels and the Spratlys may have reserves of natural resources around them. There has been little detailed exploration of the area, so estimates are largely extrapolated from the mineral wealth of neighbouring areas.
- The United States Energy Information Agency estimates there are 11 billion barrels of oil and 190 trillion cubic feet of natural gas in deposits under the sea — more than exists in the reserves of some of the world's biggest energy exporters.
- The sea is also a major shipping route and a busy international waterway-around \$5.3 trillion worth of goods moves through the sea every year, which is about 30 percent of global maritime trade.
- The waters also contain lucrative fisheries that account for, according to some estimates, 10 percent of the global total.

AFSPA (The Armed Forces (Special Powers) Act)

In news: Sixteen years after starting her hunger strike demanding the repeal of the Armed Forces (Special Powers) Act, Irom Chanu Sharmila has decided to end it and contest the Manipur Assembly elections as an Independent candidate.

What is AFSPA?

- The Armed Forces (Special Powers) Act was enacted in 1958 to bring under control what the government of India considered 'disturbed' areas.
- Section (3) of the AFSPA Act empowers the governor of the state or Union territory to issue an official notification on The Gazette of India, following which the centre has the authority to send in armed forces for civilian aid.
- Once declared 'disturbed', the region has to maintain status quo for a minimum of three months, according to The Disturbed Areas (Special Courts) Act, 1976.

Background:

- Originally, it came into being as an ordinance in 1958 and within months was repealed and passed as an Act. But, this was meant only for Assam and Manipur, where there was insurgency by Naga militants.
- But after the northeastern states were reorganized in 1971, the creation of new states (some of them union territories originally) like Manipur, Tripura, Meghalaya, Mizoram and Arunachal Pradesh paved the way for the AFSPA Act to be amended, so that it could

be applied to each of them. They may contain different sections as applicable to the situation in each state.

- In 1990 the act was extended to the state of Jammu and Kashmir to confront the rising insurgency in the area.

Powers under AFSPA:

According to AFSPA, an officer can exercise the following powers:

1. After giving due warning, an officer is allowed to open fire or use other kinds of force even if it causes death.
2. Destroy any arms dump, hide-outs, prepared or fortified position or shelter or training camp from which armed attacks are made or can be made by the armed volunteers.
3. To arrest anyone without warrant who has committed cognizable offences or is reasonably suspected of having done so.
4. To enter and search any premise in order to make such arrests, or to recover any person wrongfully restrained or any arms, ammunition or explosive substances and seize it.
5. Stop and search any vehicle or vessel reasonably suspected to be carrying such person or weapons.
6. Army officers have legal immunity for their actions. There can be no prosecution, suit or any other legal proceeding against anyone acting under AFSPA.
7. Government's judgment on why an area is found to be disturbed isn't subject to judicial review.

States under AFSPA:

Assam, Nagaland, Manipur (except the Imphal municipal area), Arunachal Pradesh (only the Tirap, Changlang and Longding districts plus a 20-km belt bordering Assam), Meghalaya (confined to a 20-km belt bordering Assam) and Jammu and Kashmir.

Criticism of AFSPA:

- AFSPA has been under severe criticism from all quarters of the society for being a draconian law widely misused by the armed forces.
- Many security experts bat for AFSPA whereas scores of academia, and human right activist, call for its abolition. They argue that since armed forces misuse the provisions to kill people, the immunity given under AFSPA to armed forces personnel should be ended.
- The Act has often faced flak from human rights groups as it gave sweeping powers and immunity to the army in conflict-ridden areas.
- Justice **Jeevan Reddy Commission 2005** and the second ARC had recommended that the AFSPA had to go and that its provisions be incorporated into a civil Act.

- A month ago, the Supreme Court judgment questioned the immunity enjoyed by the security personnel under the Armed Forces (Special Powers) Act of 1958 (AFSPA) against criminal action for acts committed in disturbed areas.
- The apex court had said that there was no concept of “absolute immunity” from trial by a criminal court if an Army man had committed an offence.

Sagarmala Project

In news: The Union Cabinet chaired by the Prime Minister gave its ‘in-principle’ approval for the concept and institutional framework of Sagarmala Project.

The Union government cleared a plan to set up Sagarmala Development Company (SDC) to provide equity support to port-led economic development projects, with an initial authorised share capital of Rs 1,000 crore and a subscribed share capital of Rs.90crore.

- To exploit the potential of India’s approximately 7,500 km long coastline and 14,500km of potentially navigable waterways the Sagarmala Programme aims
 - i. to promote port-led direct and indirect development in the country.
 - ii. to provide infrastructure to transport goods to and from ports quickly, efficiently and cost-effectively.
 - iii. to develop access to new development regions with intermodal solutions and promotion of the optimum modal split, enhanced connectivity with main economic centres and beyond through expansion of rail, inland water, coastal and road services.
- The Sagarmala initiative will address challenges by focusing on three pillars of development, namely
 - (i) Supporting and enabling Port-led Development through appropriate policy and institutional interventions and providing for an institutional framework for ensuring inter-agency and ministries/departments/states’ collaboration for integrated development,
 - (ii) Port Infrastructure Enhancement, including modernization and setting up of new ports, and
 - (iii) Efficient Evacuation to and from hinterland.
- In addition to strengthening port and evacuation infrastructure, it also aims at simplifying procedures used at ports for cargo movement and promotes usage of electronic channels for information exchange leading to quick, efficient, hassle-free and seamless cargo movement.

Sagarmala Development Company (SDC):

- The SDC's role will be to identify port-led development projects and assist special purpose vehicles (SPVs) in project development, bid out projects for private sector participation and put in place suitable risk management measures for strategic projects.
- Under the administrative control of the **Shipping Ministry**, it will also be responsible for obtaining the required approvals and clearances for the port projects.
- It will prepare detailed master plan for coastal economic zones and work as a nodal agency for coordination and monitoring of all the identified projects.
- SDC will be raising funds as debt or equity (as long term capital), as per the project requirements/ by leveraging resources provided by the government of India and from multi-lateral and bilateral funding agencies.

The Transgender Persons (Protection of Rights) Bill, 2016

The Transgender Persons (Protection of Rights) Bill, 2016 was introduced in Lok Sabha on August 2, 2016 by the **Minister for Social Justice and Empowerment**.

The bill will make all the stakeholders responsive and accountable for upholding the principles underlying the Bill.

It will bring greater accountability on the part of the Central Government and State Governments/Union Territories Administrations for issues concerning Transgender persons.

Objectives:

- to evolve a mechanism for their social, economic and educational empowerment.
- to mitigate the stigma, discrimination and abuse against this marginalized section and bring them into the mainstream of society.
- to provide for greater inclusiveness and make the transgender persons productive members of the society.

Need:

Transgender community is among one of the most marginalized communities in the country because they don't fit into the stereotypical categories of gender of 'men' or 'women'.

Consequently they face problems ranging from social exclusion to discrimination, lack of education facilities, unemployment, lack of medical facilities and so on.

Provisions:

- **Prohibition against discrimination:** The Bill prohibits the discrimination against a transgender person, including denial of service or unfair treatment in relation to: (i) education; (ii) employment; (iii) healthcare; (iv) access to, or enjoyment of goods, facilities, opportunities available to the public; (v) right to movement; (vi) right to reside, rent, own or otherwise occupy property; (vii) opportunity to hold public or private office; and (viii) access to a government or private establishment in whose care or custody a transgender person is.
- **Right of residence:** Every transgender person shall have a right to reside and be included in his household.
- **Education:** Educational institutions funded or recognised by the government shall provide inclusive education, sports and recreational facilities for transgender persons, without discrimination.
- **Health care:** The government shall take steps to provide health facilities to transgender persons including separate HIV surveillance centres, sex reassignment surgeries, etc. The government shall review medical curriculum to address health issues of transgender persons, and provide comprehensive medical insurance schemes for them.
- **Certificate of identity for a transgender person:** A transgender person may make an application to the District Magistrate for a certificate of identity, indicating the gender as 'transgender'.
- **Welfare measures by the government:** The Bill states that the relevant government will take measures to ensure the full inclusion and participation of transgender persons in society. It must also take steps for their rescue and rehabilitation, vocational training and self-employment, create schemes that are transgender sensitive, and promote their participation in cultural activities.
- **Offences and Penalties:** The Bill recognizes the following offences: (i) begging, forced or bonded labour (excluding compulsory government service for public purposes); (ii) denial of use of a public place; (iii) denial of residence in household, village, etc.; (iv) physical, sexual, verbal, emotional and economic abuse. These offences will attract imprisonment between six months and two years, and a fine.
- **National Council for Transgender persons (NCT):** The NCT will consist of: (i) Union Minister for Social Justice (Chairperson); (ii) Minister of State for Social Justice (Vice-Chairperson); (iii) Secretary of the Ministry of Social Justice; (iv) one representative from ministries including Health, Home Affairs, Minority Affairs, Housing, Human Resources Development, etc. Other members include representatives of the NITI Aayog, National Human Rights Commission, and National Commission for Women. State governments will also be represented. The Council will also consist of five members from the transgender community and five experts from non-governmental organisations.
- The Council will advise the central government on the formulation and monitoring of policies, legislation and projects with respect to transgender persons.

- The draft Bill also said that transgenders who by birth do not belong to Scheduled Castes or Scheduled Tribes may be declared members of the Backward Classes, and would be entitled to reservation under the existing ceiling for OBCs.
- It calls for necessary amendments in the Indian Penal Code to cover cases of sexual offence against transgender persons.

Rare Earth Elements

- Rare earth elements are a group of seventeen chemical elements that occur together in the periodic table.
- The group consists of yttrium and the 15 lanthanide elements (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium). The International Union of Pure and Applied Chemistry also includes scandium in their rare earth element definition.
- The rare earth elements are all metals, and the group is often referred to as the "rare earth metals." These metals have many similar properties and that often causes them to be found together in geologic deposits. They are also referred to as "rare earth oxides" because many of them are typically sold as oxide compounds.
- China supplies atleast 95% of world's rare earths.

Uses of Rare Earth Elements : During the past twenty years, there has been an explosion in demand for many items that require rare earth metals.

- Rare earth metals and alloys that contain them are used in many devices that people use every day such as computer memory, DVDs, rechargeable batteries, cell phones, catalytic converters, magnets, fluorescent lighting and much more.
- Several pounds of rare earth compounds are in batteries that power every electric vehicle and hybrid-electric vehicle.
- Rare earths are used as catalysts, phosphors, and polishing compounds. These are used for air pollution control, illuminated screens on electronic devices, and the polishing of optical-quality glass. All of these products are expected to experience rising demand.
- Rare earth elements play an essential role in our national defense. The military uses night-vision goggles, precision-guided weapons, communications equipment, GPS equipment, batteries and other defense electronics. Rare earth metals are key ingredients for making the very hard alloys used in armored vehicles and projectiles that shatter upon impact.

Defense Uses of Rare Earth Elements	
Lanthanum	night-vision goggles
Neodymium	laser range-finders, guidance systems, communications
Europium	fluorescents and phosphors in lamps and monitors
Erbium	amplifiers in fiber-optic data transmission
Samarium	permanent magnets that are stable at high temperatures
Samarium	precision-guided weapons
Samarium	"white noise" production in stealth technology

Are These Elements Really "Rare"?

- Rare earth elements are not as "rare" as their name implies. Thulium and lutetium are the two least abundant rare earth elements - but they each have an average crustal abundance that is nearly 200 times greater than the crustal abundance of gold.
- However, these metals are very difficult to mine because it is unusual to find them in concentrations high enough for economical extraction.
- The most abundant rare earth elements are cerium, yttrium, lanthanum and neodymium. They have average crustal abundances that are similar to commonly used industrial metals such as chromium, nickel, zinc, molybdenum, tin, tungsten and lead. Again, they are rarely found in extractable concentrations.

The Maternity Benefit (Amendment) Bill, 2016

- passed in Rajya Sabha
- The Bill amends the Maternity Benefit Act, 1961. It was introduced by the **Minister for Labour and Employment**. The Act regulates the employment of women during the period of child birth, and provides maternity benefits.
- This amendment is applicable to all establishments employing 10 or more people, and will help 1.8 million women in the organised sector.
- **Duration of maternity leave:** Provides for 26 weeks of maternity leave (against the existing 12 weeks).
- Under the Act, this maternity benefit could not be availed before six weeks from the date of expected delivery. The Bill changes this to eight weeks.
- In case of a woman who has two or more children, the maternity benefit will continue to be 12 weeks, which cannot be availed before six weeks from the date of the expected delivery.
- **Maternity leave for adoptive and commissioning mothers:** The Bill introduces a provision to grant 12 weeks of maternity leave to: (i) a woman who legally adopts a child below three months of age; and (ii) a commissioning mother. A commissioning mother is defined as a biological mother who uses her egg to create an embryo implanted in

another woman. The 12-week period of maternity benefit will be calculated from the date the child is handed over to the adoptive or commissioning mother.

- **Option to work from home:** The Bill introduces a provision that states that an employer may permit a woman to work from home. This would apply if the nature of work assigned to the woman permits her to work from home. This option can be availed of, after the period of maternity leave, for a duration that is mutually decided by the employer and the woman.
- **Crèche facilities:** The Bill introduces a provision which requires every establishment with 50 or more employees to provide crèche facilities within a prescribed distance. The woman will be allowed four visits to the crèche in a day. This will include her interval for rest.
- **Informing women employees of the right to maternity leave:** The Bill introduces a provision which requires every establishment to intimate a woman at the time of her appointment of the maternity benefits available to her. Such communication must be in writing and electronically.

Beti Bachao Beti Padhao

It is a joint initiative of Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development.

- **Objectives:**
 - (i) Prevent gender biased sex selective elimination
 - (ii) Ensure survival & protection of the girl child
 - (iii) Ensure education of the girl child
- The Beti Bachao Beti Padhao (BBBP) initiative has two major components:
 - (i) Mass Communication Campaign and
 - (ii) Multi-sectoral action in 100 selected districts (as a pilot) with adverse CSR, covering all States and UTs.

New steps to enhance transparency in Power Sector

‘TARANG’ (Transmission App for Real Time Monitoring & Growth) Mobile App & Web Portal

- TARANG is a powerful monitoring tool that tracks upcoming transmission projects and monitor the progress of Inter-State & Intra-State transmission systems in the country, being developed through Regulated tariff mechanism as well as Tariff Based Competitive Bidding (TBCB) route.
- TARANG shall also include status of stalled/delayed transmission systems in country which would enable the stakeholders viz. Ministry of Power, State Governments, all private sector transmission developers and PSUs like Power Grid Corporation of India Ltd., for expeditious completion of such projects.

‘e-Trans’ web platform:

- for e-bidding and e-reverse auction for Tariff Based Competitive Bidding (TBCB) in transmission projects.
- With e-Trans, the interface will be electronic. Further, on the lines of coal sector, reverse auction is being introduced in transmission sector to facilitate better price discovery in transmission projects.

‘DEEP (Discovery of Efficient Electricity Price) e-Bidding’ portal:

- for medium term (1-5 years) purchase of power,
 - the Portal will provide a common e-bidding platform with e-reverse auction facility to facilitate nation-wide power procurement through a wider network so as to bring uniformity and transparency in the process of power procurement.
- ◇ All have been developed by Rural Electrification Corporation Transmission Projects Company Limited (RECTPCL), a subsidiary of REC Ltd, under the guidance of **Ministry of Power**. Introduction of the electronic platform shall enhance ease, accountability & transparency and would boost confidence of investors in power transmission sector. Better price discovery shall ultimately benefit the power consumers in India.

Initiatives connected with Swachh Bharat Mission

Launched by: **Ministry of Urban Development**

‘Swachh Suvakshan-2017’:

- Its aim is to assess and rank 500 cities and towns based on levels of sanitation and efforts made by respective urban local bodies and also to capture progress towards achieving ‘Open Defecation Free’ status.
- cities will be ranked based on the reports by urban local bodies on the progress made towards construction of toilets, feedback of citizens and independent observation of sanitation levels.
- Cities with a population of one lakh and above each, heritage and tourism cities, capital cities with less than one lakh population are included in this survey.

Swachhata App: a web portal to enable citizens associate more and more with Swachh Bharat Mission in urban areas. Citizens can post photos of unhygienic places in urban areas on Swachh App and they will be informed of action taken by respective urban local bodies in specific time period.

‘Swachhata Helpline 1969: Using toll free Helpline Number 1969, citizens can seek information about the ways of participating in cleanliness mission and can also enquire the status of their applications for construction of toilets.

Asli Tarakki:

- Stressing on the need for behavioral change in favour of using toilets, 'Asli Tarakki' campaign was launched highlighting the need for construction of toilets and using them well.
- This campaign to be mounted on TV channels and in print media soon brings out that having two wheelers, air coolers, TV sets etc., is not 'Asli Tarakki' (real development) if such people did not either have toilets or don't use them.
- About 450 young men and women with "communication skills and leadership qualities" have been selected as "lead motivators" to spread awareness on Swachh Bharat Mission.

"National Electoral Roll Purification" (NERP) 2016

The Election Commission of India Launched "National Electoral Roll Purification" (NERP) 2016. ECI gives utmost importance to enrolment of all eligible citizens and to assist electors to reach and cast their votes in a hassle free way by establishing Polling stations (PSs) at a conveniently located building. **"No voter to be left behind"** is the motto of ECI for year 2016.

The twin objectives of NERP 2016 are:

- (1) Improving Health of Electoral Rolls by-inclusion of all eligible citizens in mission mode;
- (2) Standardization of Sections, Polling Stations boundaries & Location

Unified Payments Interface

- UPI is a payment system that allows money transfer between any two bank accounts by using a smartphone.
- UPI allows a customer to pay directly from a bank account to different merchants, both online and offline, without the hassle of typing credit card details, IFSC code, or net banking/wallet passwords.
- UPI can be used both to send and receive funds.
- It is developed by The National Payments Corporation of India (NPCI)

How is it different from other modes of electronic payment?

- The difference between UPI and payment modes such as National Electronic Funds Transfer -NEFT and Immediate Payment Service -IMPS is that bank account details are not shared in the transaction, and transactions can be made 24×7 all year round.

- The other advantage is that it is possible to have multiple unique virtual addresses and use multiple bank accounts, and without necessarily having to go through your own bank for a variety of transactions.

Benefits:

- The UPI fits in well with the move to migrate towards a cashless economy in the medium and long term.
- By bringing person to person payments for even very small amounts online, it would be possible to reduce the amount of cash in the system, create a trail of all transactions, lower tax evasion and boost revenues.
- For banks which were smarting under the onslaught of mobile wallets like PayTM, Mobikwik, Oxigen and Citrus Pay, UPI has come as a boon to retrieve the lost ground.
- Banking observers say UPI, which may become a game changer, is likely to take the wind out of mobile wallets' sails. It will put pressure on the Indian mobile wallet industry because most of the wallet companies do not have payment bank licenses and will have to partner with the banks on the platform.
- It is safe as the customers only share a virtual address and provide no other sensitive information.

Cyathalon 2016

- The Cyathalon is presented by ETH Zurich and comes out of a collaboration with the Swiss National Center of Competence in Robotics Research.
- It will be for disabled athletes using bionic assistive technology, such as robotic prostheses, brain-computer interfaces and powered exoskeletons.
- It will be the first international professional competition of its kind, and is scheduled to take place in Zurich, Switzerland, on 8 October 2016.
- Intention is to use the competition to promote the development and widespread use of bionic technology.
- The Cyathalon will feature six disciplines: a Functional Electrical Stimulation (FES) bicycle race, a Powered Leg Prosthesis Race, a Powered Wheelchair Race, a Powered Exoskeleton Race, a Powered Arm Prosthesis Race, and a computerised race for competitors with paralysis using brain-computer interfaces to compete in a computer game (BCI Race)
- The competitors, known as "pilots", can use both commercially available bionic technology and lab-developed prototypes
- Medals will be awarded to both the athletes themselves and to the companies or institutions that create their bionics

Made in India Leprosy Vaccine

- A first-of-its-kind leprosy vaccine developed in India is to be launched on a pilot basis in five districts in Bihar and Gujarat.
- If it shows good results, the vaccine programme will be extended to other high-prevalence districts in the country.
- **About the vaccine:**
- The vaccine, called *Mycobacterium indicus pranii*(MIP), will be administered as a preventive measure to people living in close contact with those infected.
- It was developed by the National Institute of Immunology, New Delhi, and has been approved by the Drug Controller General of India and the FDA in the U.S.
- Trials had shown that the vaccine, if given to people in close contact with affected persons, could bring down cases by 60 per cent in three years.

Leprosy:

- The disease, caused by the bacteria, *Mycobacterium leprae* , affects around 1.25 lakh people every year in India.
- Sixty per cent of the world's leprosy patients live in India
- National Leprosy Eradication Programme was launched in 1983.
- India achieved the goal of elimination of leprosy as a public health problem in Dec 2005

Pelargonic Acid Vanillyl Amide (PAVA) Shells

In news: The Home Ministry has cleared the file for use of PAVA shells, a chilli-based ammunition, as an alternative to the pellet guns for crowd control. Pellet guns are, however, unlikely to be banned completely but will be used in “rarest of rare cases”.

About PAVA:

- PAVA stands for Pelargonic Acid Vanillyl Amide, also called Nonivamide, and is an organic compound found characteristically in natural chilli pepper.
- On the Scoville scale (the degree to measure the power of chilli), PAVA is categorised as “above peak” meaning it will severely irritate and paralyse humans, but in a temporary fashion.
- It is also used as a food additive to add pungency, flavouring and spicy effect to food.

Background:

- The use of PAVA was recommended by a seven-member expert committee, headed by Joint Secretary in the Home Ministry T.V.S.N. Prasad, in its report submitted on August 29, 2016.
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- The panel was constituted after scores of protesters were blinded by the use of pellet guns in the Valley.
- The PAVA shells were under trial for over a year at the Indian Institute of Toxicology Research, a Council of Scientific and Industrial Research (CSIR) laboratory in Lucknow.

Need for an HPV (Human Papilloma Virus) vaccine

Two vaccines: Gardasil and Cervarix are available in India. The decision to include the vaccine in the immunization programme is pending with the Health Ministry. Delhi became the first state in the country to launch this vaccine as a public health programme for schoolchildren.

- The vaccine offers protection against sexually transmitted Human Papilloma Virus.
- The vaccine also averts the risk of contracting cervical cancer. • It needs to be administered before the first intercourse.
- WHO (World Health Organisation) recommends two doses of the vaccine preferably in the age of 9-13 years.

Issue:

- The cervical cancer cases in India has decreased potentially in the last 10 years due to improved personal hygiene, availability of running water in washrooms and better nutrition.
- In such a scenario, the need for the vaccine is a matter of debate as it is an expensive intervention.
- Moreover, it is difficult to determine its efficacy in averting the risk of cervical cancer.
- Also, regular screening (such as the pap smear test) in India is given more importance.
- On the other hand, WHO says that interventions such as screening and vaccination need to coexist and can even help eliminate cancer.

'Solar Power Tree'

It is an Innovation aimed at utilizing minimum land to harness maximum Solar Energy

Launched by: Ministry for Science & Technology and Earth Sciences

Developed by: CSIR-Central Mechanical Engineering Research Institute (CSIR-CMERI), a constituent laboratory of Council of Scientific and Industrial Research (CSIR).

- The Solar Power Tree harnesses solar energy for producing electricity with an innovative vertical arrangement of solar cells.
- It thus reduces the requirement of land as compared to conventional Solar Photovoltaic layout, on one hand, while keeping the land character intact on the other.

- Even the cultivable land can be utilized for solar energy harnessing along with farming at the same time. The innovation finds its viability both in rural and urban areas.
- Solar Power Tree innovatively addresses the challenge of increasing demand for Green Energy by gainfully utilizing scarce land resources in the country.

The **Salient Features** of the Solar Power Tree are:

- It takes only 4 square feet of land for a 5 KW Solar Power tree, whereas in a conventional layout, it requires 400 square feet of land.
- By holding the photovoltaic panels at a higher height, on an average it gets more sunrays for one hour in a day. As a result, it is possible to harness 10-15% more power in comparison to a conventional layout on ground.
- It has a battery back-up of 2 hours on full load, hence giving light even after sunset.
- It is facilitated with water sprinkler at the top for self-cleaning of panels, that increases the efficiency of the solar panels.

Future Prospect:

The device has been functioning effectively at three places in West Bengal as a pilot project. As a future prospect, the Solar Power Tree would be developed in a rotatable module, which would have a motorized mechanism to align itself with the movement of the Sun during the day. Hence, it would be possible to harness 10-15% more power over and above the current capacity.

SDG Index

- **Launched by:** The Sustainable Development Solutions Network (SDSN) and the Bertelsmann Stiftung
- It ranks countries based on their performance across the 17 global SDG goals, a set of ambitious objectives across the three dimensions of sustainable development economic development, social inclusion and environmental sustainability, underpinned by good governance.
- The index helps countries identify priorities for early actions and shows that every country faces major challenges in achieving the SDGs.
- The index collected available data for 149 countries to assess where each country stands in 2016 with regard to achieving the SDGs.
- India ranks 110th on the list followed by Lesotho on 113th position, Pakistan (115), Myanmar (117), Bangladesh (118) and Afghanistan (139).
- Sweden tops the chart and is followed by Denmark and Norway on the top three performing countries.
- The report highlights major challenges per region:

- Organisation for Economic Co-operation and Development (OECD) countries struggle to meet the goals on inequality, sustainable consumption, climate change and ecosystems, while many developing countries face major difficulties in providing basic social services and infrastructure access to their populations.
- East and South Asia outperform many other developing regions but unmet challenges persist in health and education.
- For Latin America and the Caribbean, high levels of inequality are among the most pressing issues.

Madhya Pradesh -the first State in the country to set up a ‘Happiness Department’

- ‘Happiness Department’ will work as knowledge resource centre on the subject of happiness on the lines of Bhutan.
- The Happiness Department will work under a working committee headed by a chairman.
- The committee will evaluate the state’s gross happiness. The department will prepare guidelines for coordination between different departments like women and child development, health, and sports for propagating happiness in the state.
- It will also undertake constant researches and surveys for expanding means happiness and improve norms to assess them. It will publish reports pertaining to status of happiness.
- Bhutan is the first country in the world to come up with the concept of Gross National Happiness (GNH). The World Happiness Report 2016 published by the United Nations ranks India at 118th position among 156 countries.

The World Happiness Report 2016

- The World Happiness Report is a landmark survey of the state of global happiness. The first report was published in 2012.
- The reports review the state of happiness in the world today and show how the new science of happiness explains personal and national variations in happiness.
- They reflect a new worldwide demand for more attention to happiness as a criteria for government policy.
- published by **the United Nations Sustainable Development Solutions Network**
- The report takes into account the GDP per capita, life expectancy, social support and freedom to make life choices as indicators of happiness.
- Denmark took the top spot as the ‘happiest country’ in the world, displacing Switzerland. Switzerland was ranked second on the list, followed by Iceland (3), Norway (4) and Finland (5).
- India was ranked 118th in the list, down one slot from last year on the index. The report said that India was among the group of 10 countries witnessing the biggest happiness declines, along with Venezuela, Saudi Arabia, Egypt, Yemen and Botswana.

- India comes below Somalia (76), China (83), Pakistan (92), Iran (105), Palestinian Territories (108) and Bangladesh (110).
- The U.S. is ranked 13th, coming behind Australia (9) and Israel (11).

The Members of Parliament Local Area Development Scheme (MPLADS)

- Formulated in 1993.
- Administered by: **The Ministry of Statistics and Programme Implementation**
- It is meant to enable MPs to recommend works of developmental nature with emphasis on creation of durable community assets based on locally felt needs.
- The recommendation of the works to the tune of Rs.5 crores per annum to be taken up in his constituency, is made by the MP. The MP has no role in sanction and implementation.
- The R.S M.P can recommend works in one or more districts in the state from where he is elected.
- The nominated members of L.S and R.S. may select any districts from any state in the country for implementation of their work under the scheme.
- Sanction of the eligible works and implementation of the sanctioned works in the field are undertaken by the District Authorities in accordance with State Government's financial, technical and administrative rules.
- Recently, a delegation of MPs has petitioned PM for increase in MPLADS Fund from current 5 crores to 25 crores for five year term.

Operation Muskaan-II

- It is a follow up of the earlier campaign-“Operation Muskaan” to rescue/rehabilitate the missing children.
- It is launched by Ministry of Home Affairs
- Thousands of children have been rescued under the campaign so far.

Global Innovation Index

- **Published by:** The Johnson School at Cornell University, INSEAD Business School and the World Intellectual Property Organization.
- It is an annual ranking of countries by their capacity for, and success in, innovation.
- Switzerland, Sweden, the UK, the US, Finland and Singapore lead the 2016 GII rankings

- This year, China joined the world's 25 most-innovative economies, becoming the first middle-income country to enter the top 25 of the index.
- India climbed 15 spots, from 81 last year, to 66 in the Global Innovation Index and maintained the top spot in the Central and South Asia regions.
- India ranks among the top 50 economies overall in market sophistication (33rd) and knowledge and technology outputs (43rd). However, despite the strong ranking otherwise, India is still sluggish in terms of overall ICT penetration, e-participation, ICT use and e-governance services.

Udaipur Declaration

- Adopted at BRICS Disaster Risk Reduction meet
- Resolve to set up a dedicated Joint Task Force for Disaster Risk Management for regular dialogue, exchange, mutual support and collaboration among BRICS Countries.
- The roadmap for implementation of the three-year Joint Action Plan for BRICS emergency services (2016-18) was also finalised.

The meeting focused on two themes:

- (i) Flood Risk Management and
- (ii) Forecasting of Extreme Weather Events in the context of Changing Climate.

MAA (Mothers Absolute Affection)

- It's a flagship programme to ensure adequate awareness is generated among masses, especially mothers, on the benefits of breastfeeding.
- There is provision of counselling services for supporting breastfeeding through health systems.
- The programme has been named 'MAA' to signify the support a lactating mother requires from family members and at health facilities to breastfeed successfully.
- The **chief components** of the MAA Programme are:

- (i) Community awareness generation
 - (ii) Strengthening inter personal communication through ASHA,
 - (iii) Skilled support for breastfeeding at Delivery points in Public health facilities,
 - (iv) Monitoring and Award/recognition.
- **Need:** Breastfeeding is central to improving child survival. Poor breastfeeding practices contribute to about 13% of child deaths. Early initiation of breastfeeding within one hour of birth and thereafter exclusive breastfeeding for the first six months is essential for the wellness of the child.

C-band Polarimetric Doppler Weather Radar

- Commissioned by ISRO at VSSC (Vikram Sarabhai Space Centre) in Kerala's Thiruvananthapuram.
- The Radar has been developed as a national effort to meet the country's weather forecast requirements and establish a network to seamlessly cover the regions of interest, thereby ensuring effective weather forecast.
- The data from the DWR is also expected to support a host of operational programmes of IMD and NESAC (North East Space Applications Centre)/ISRO. The near real time precipitation estimates from the DWR shall improve the Flood Early Warning System (FLEWS), being developed by NESAC for NE states.
- It will also enable IMD and NESAC to take up operational activities on thunderstorm now-casting and hail now-casting for NE states.
- This is second Doppler Weather Radar (First of its kind in South India). First one was installed at Cherapunji, Meghalaya and was built by ISRO and Bharat Heavy Elec Ltd (BHEL).
- The work is on for two more Doppler Radars to be set up in Bhuj in Gujarat and Gopalpur.

About Doppler Weather Radar:

- The Doppler Weather Radar (DWR) provides advance information, enhancing the lead-time so essential for saving lives and property, in the event of natural disaster associated with severe weather.
- Though the conventional radars are able to track and predict cyclones, the DWR provides detailed information on storm's internal wind flow and structure.
- The severity of the weather systems can thus be quantitatively estimated more accurately than ever before and more precise advance warnings can be generated for saving human lives and property.
- The polarimetric capability of the Radar will significantly improve the accuracy of rainfall estimation leading to accurate and timely flash flood warnings.