

# CURRENT AFFAIRS

*For*

## APSC Prelims 2018

(REVISION NOTES)

### ENVIRONMENT & ECOLOGY

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## ENVIRONMENT & ECOLOGY

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**(REVISION NOTES from Nov 2017 - October 2018)**

### Banaganapalle Mangoes, Six Others Get GI Tag

- Banaganapalle mangoes of Andhra Pradesh and Tulapanji rice of WB are granted GI tags
- The other five products include Pochampally Ikat of Telangana; Gobindobhog Rice of West Bengal; Durgi Stone Carvings and Etikoppaka Toys of Andhra Pradesh; and Chakshesang Shawl of Nagaland

**Musa Paramjitiana** - new species of wild banana discovered in North Andaman

### New Ant Species Discovered in the Western Ghats

- discovered a new species of ant in the Periyar Tiger Reserve in the Western Ghats,
- Western Ghats is one of the world's 'hottest hotspots' of biological diversity.
- named as **Tyrannomyrmex alii** after Prof. Musthak Ali, an eminent Indian myrmecologist.
- **Myrmecology** is the branch of entomology focusing on the scientific study of ants.

### Bamboo ceases to be a tree, freed of Forest Act

- Bamboo has legally ceased to be a tree with Govt amending the **Indian Forest Act, 1927**
- Govt hoped to **promote cultivation of bamboo in non-forest areas**
- The earlier act wrongly classified Bamboo as a tree.
- **Bamboo is a scientifically recognized grass.**
- **India is the world's second largest bamboo producer** and has 13.96 million hectares, **the largest area, under bamboo cover.**



**India Awarded Certificate of Commendation by CITES**

- India has been awarded the Certificate of Commendation by **Wildlife Crime Control Bureau** by the **Convention on Illegal Trade on Endangered Species (CITES)** at Geneva.
- for its specific wildlife enforcement Operation, **"Operation Save Kurma"** under **"Operation Thunder bird"**.

**CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)**

- multilateral treaty to protect endangered plants and animals.
- The convention was opened for signature in 1973 and CITES entered into force on 1 July 1975.

**International Conference on Climate Change held in Nepal**

- to draw attention towards the adverse effects of global warming in the Hindu Kush mountain range.

**FAME-India Scheme**

- The **FAME-India (Faster Adoption and Manufacturing of (hybrid &) Electric vehicles in India)** is intended to support the hybrid/electric vehicles market
- Its manufacturing eco-system to achieve self-sustenance.
- launched in 2015 under the National Electric Mobility Mission (NEMM).
- scheme has four focus areas: **technology development, demand creation, pilot projects and charging infrastructure.**

**National Electric Mobility Mission (NEMM)**

- Gol launched National Electric Mobility Mission Plan (NEMMP) 2020 in 2013.
- aims to achieve national fuel security by promoting hybrid and electric vehicles



**NDMA conducts Training of Trainers for Sendai Framework**

- The **Sendai Framework for Disaster Risk Reduction (SFDRR)**, 2015-2030, is the first agreement of the post-2015 development agenda and identifies targets and priority actions towards **reducing disaster risks**
- **India one of the first countries** to align its National Disaster Management Plan (NDMP) with the SFDRR

**Mankidia Denied Habitat in Simlipal**

- Mankidia, one of the 13 Particularly Vulnerable Tribal Groups (PVTG) in Odisha, were denied habitat rights inside the Similipal Tiger Reserve under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- **Particularly vulnerable tribal group (PVTG)** govt classification created for enabling improvement in conditions of certain vulnerable tribal group.
- Dhebar Commission within Scheduled Tribes existed an inequality in the rate of development

**Sikkim allows people to forge Fraternal Ties with trees**

- Govt of Sikkim - unique way of preserving trees by encouraging people to forge a relationship of brotherhood or sisterhood with trees through a practice - known as Mith/Mit or Mitini.
- allow any person to associate with trees by entering into a Mith/Mit or Mitini relationship.

**India ranks 177 out of 180 in Environmental Performance Index(EPI)**

- India is among the bottom five countries on the Environmental Performance Index 2018, biennial report by Yale and Columbia Universities along with the World Economic Forum.
- to poor performance in the environment health policy and deaths due to air pollution categories.





### Zero Budget Natural Farming Project

- ZBNF project launched by the Himachal Pradesh government to promote organic farming
- set of natural farming methods under which the cost of growing and harvesting plants is zero.
- The programme involves almost **no monetary investment** and envisages the use of 'Jeevamrutha' and 'Beejamrutha'
- 'Zero Budget' refers to zero net cost of production of all crops, which means that farmers don't have to buy fertilizers and pesticides to ensure the healthy growth of crops
- The main aim is to eliminate the use of chemical pesticides and use biological pesticide instead.
- advised to use cow dung, urine, plants, human excreta, earthworms and similar biological fertilizers for crop protection.
- protect soil from degradation and help in retaining soil fertility

### Floating 'Island' to clean up Nekkampur Lake

- The Floating Treatment Wetland (FTW) was inaugurated in Nekkampur Lake in Hyderabad to clean and purify the pollution.
- **World Wetlands Day** on 2 February

### Pelican Bird Festival

The 'Pelican Bird Festival-2018' was held for the first time at Atapaka Bird Sanctuary on Kolleru lake in Andhra Pradesh.

Atapaka Bird Sanctuary was recognized as one of the largest pelicanry in the world.

Kolleru Lake is one of the largest freshwater lakes in India located in Andhra Pradesh - designated wetland of international importance in November 2002 under Ramsar Convention.







### Rhododendron Park In Tawang

- Rhododendron is a genus of 1,024 species of woody plants in the heath family (Ericaceae), either evergreen or deciduous, and found mainly in Asia
- national flower of Nepal.
- Rhododendrons of India about 80 species. It is distributed mainly in different regions and altitudes of Himalayas with a greater concentration in the eastern Himalayas.

### Cabinet approves Ratification of the Minamata Convention on Mercury

- The approval entails Ratification of the Minamata Convention on Mercury along with flexibility for continued use of mercury-based products and processes involving mercury compound up to 2025.
- The Minamata Convention on Mercury urges the enterprises to move to mercury-free alternatives in products and non-mercury technologies in manufacturing processes.
- Mercury is considered by experts to be one of the most toxic metals known.
- The **Minamata Convention on Mercury** was **adopted and signed in 2013** at a Diplomatic Conference held in Kumamoto, Japan, named after the Japanese city **Minamata**.

### India State of Forest Report 2017

- The India State of Forest Report (ISFR) 2017
- Forest and Tree Cover of the country has increased by 8,021 sq km (1 %) as compared to assessment of 2015.
- national policies aimed at conservation and sustainable management of our forests like Green India Mission, National Agro-Forestry policy (NAP), REDD plus policy, Joint Forest Management (JFM), National Afforestation Programme and funds under Compensatory Afforestation to States.
- **Top 5 states where maximum forest cover has increased** are Andhra Pradesh (2,141 sq kms), Karnataka (1,101 sq kms), Kerala (1,043 sq kms), Odisha (885 sq kms) and Telangana (565 sq kms).
- **Top 5 states where forest cover has decreased** are Mizoram (531 sq km), Nagaland (450 sq km), Arunachal Pradesh (190 sq km), Tripura (164 sq km) and Meghalaya (116 sq km) - due to - shifting cultivation, other





biotic pressures, rotational felling, diversion of forestlands for developmental activities, submergence of forest cover, agriculture expansion and natural disasters.

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- mangrove forests have increased by 181 sq kms. Maharashtra (82 sq kms), Andhra Pradesh (37 sq kms) and Gujarat (33 sq kms) are the top three gainers in terms of mangrove cover.
- India NDC goal of creating additional carbon sink of 2.5 to 3.0 billion tonnes of CO<sub>2</sub> equivalent through additional forest and tree cover by 2030.
- As per present assessment total carbon stock in forest is estimated to be 7,082 million tonnes.

Assam will mark September 22 as Rhino Day to raise awareness about the animal

- to generate public awareness on protection of the one-horned pachyderm.
- A State Rhino Project in line with National Rhino Project will be launched in Assam soon for protecting the pachyderms from threats of poaching.

The Global Host of World Environment Day 2018 - Drive Against Plastic Pollution

- India will be the global host of this year's World Environment Day on June 5
- 'Beat Plastic Pollution' will be the theme of this year's event

World Wildlife Day – Wildlife Under Threat

- March 3 is celebrated as World Wildlife Day to raise awareness about our planet's flora and fauna.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was finalised on March 3 and has been celebrated as World Wildlife Day since 2014.



**Newton-Bhabha Fund for Arsenic Research in Ganga Basin**

- An India-UK Joint Team has won the Newton-Bhabha Fund for a project on Groundwater Arsenic Research in Ganga River Basin.
- Arsenic is an element that occurs in organic and inorganic compounds, its presence in inorganic compounds is highly toxic and carcinogenic.

**Arsenic contamination of ground water in india**

- Within India, arsenic concentration is particularly high in and around the Ganges delta in eastern and northeastern India.
- This is due to silt from the Himalayas containing arsenopyrite

**Introduction of BS VI Fuel**

- BS VI fuel to be available in Delhi from 1 April 2019 and the country from 2020.

**The Bharat Stage (BS) Fuel Norms**

- India is the third largest consumer of oil after China and the US.
- The vehicular pollution norms introduced in the early 1990s.
- BS VI norms seek to cut down **sulphur** content to 10 ppm from 50 ppm.
- State-owned refineries in Mathura and Panipat are already producing BS VI fuel.
- The shift from BS IV to BS VI, skipping a stage, is estimated to cost refiners Rs28,000 crore.
- Based on the European regulations (Euro norms), these standards set specifications/limits for the release of air pollutants from equipment using internal combustion engines, including vehicles.
- Typically, higher the stage, more stringent the norms.
- BS V standard was earlier scheduled for 2019, now been skipped. BS VI has been now advanced to 2020.

**Government unveils Draft National Forest Policy**

- India's environment ministry has unveiled a draft of the new National Forest Policy (NFP).
- aim of bringing a minimum of one-third of India's total geographical area under forest or tree cover.
- The first National Forest Policy in independent India took effect in 1952







- suggests setting up of two national-level bodies—National Community Forest Management (CFM) Mission and National Board of Forestry (NBF) - for better management of the country's forests.
- also calls for "promotion of trees outside forests and urban greens", while stating that it will be taken up in "mission mode".

### Delhi becomes first city to roll-out Euro VI Fuel

- aim to combat the rising levels of air pollution in Delhi-NCR region.
- Cities in the national capital region like Noida, Ghaziabad, Gurugram and Faridabad as well as 13 major cities including Mumbai, Chennai, Bengaluru, Hyderabad and Pune will switch over to cleaner Euro-VI grade fuel from January 1 next year.
- Rest of the country will follow suit from April 2020.

### Assam's Spring Festival begins in Manas National Park

- The festival was organized by Indian Weavers' Association and the Swankar Mithinga Onsai Afat, an association of reformed poachers in Manas who are now engaged in wildlife conservation and preservation.
- **Manas National Park** or Manas Wildlife Sanctuary is UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve
- rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog, wild water buffalo.
- contiguous with Royal Manas National Park in Bhutan. It covers five districts of Assam- Kokrajhar, Baksa, Chirang, Udalguri and Barpeta.

### Coal Bed Methane

- CBM is simply methane found in coal seams.
- It is called '**sweet gas**' because of its lack of hydrogen Sulphide.
- The methane is in a near -liquid state, lining the inside of pores within the coal (called the matrix).
- contains very little heavier hydrocarbons such as propane or butane, and no natural gas condensate.



### **Meghalaya Landscapes Management Project**

- A loan agreement worth USD 48 million for the "Meghalaya Community-led Landscapes Management Project (MCLLMP)" - signed between India and the World Bank.
- to strengthen community-led landscapes management in selected landscapes in Meghalaya.

### **Sunderban Reserve Forest to get Ramsar Site Status**

- The West Bengal government gave its approval to the State Forest Department to apply for recognition under the Ramsar Convention.
- State Forest Department through Central Government will apply to Ramsar Convention Secretariat.

### **Ramsar convention**

- The Convention on Wetlands - inter-governmental treaty that provides the framework for national action and international cooperation for conservation and wise use of wetlands
- Adopted in 1971 in Ramsar, came into force in 1975.
- only one Ramsar site in West Bengal- East Kolkata Wetlands.
- Sunderban was identified as UNESCO World Heritage Site in 1987 for its exclusive biodiversity.
- Once it is conferred Ramsar site status, Sundarban Reserve Forest will be largest protected wetland in the country.
- Currently 26 sites in India recognised as Ramsar wetland sites of international importance.

### **Sunderban**

- vast contiguous mangrove forest ecosystem in the coastal region of Bay of Bengal spread
- across India and Bangladesh.
- It covers approximately 10,000 square kilometres of area of which 60% is in Bangladesh and remaining in India.
- It comprises almost 43% of the mangrove cover in the country.
- the largest tidal halophytic mangrove forest in the world.
- **world's largest tiger habitat**
- **Royal Bengal Tiger**, including Chital Deer, Crocodile and Snakes.

**April 22: Earth Day**

- to increase the awareness among people about the environment safety as well as to demonstrate the environmental protection measures.
- First time celebrated in the year 1970
- The theme for 2018 Earth Day is 'End Plastic Pollution'.

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**System of Air Quality and Weather Forecasting and Research (SAFAR)**

- apex forecaster of pollution trends in Delhi, Mumbai, Pune and Ahmadabad
- generates likely air quality profile for a day in advance, for these cities.
- SAFAR monitors pollutants like PM1, PM2.5, PM10, NO<sub>x</sub> (NO, NO<sub>2</sub>), CO, Ozone, SO<sub>2</sub>, BC, Methane (CH<sub>4</sub>), Non-methane hydrocarbons (NMHC), Benzene, VOC's, Mercury.
- Union Environment Ministry also released draft of National Clean Air Programme (NCAP)

**Restructured National Bamboo Mission**

- CCEA approved the centrally sponsored scheme 'National Bamboo Mission' (NBM) under the National Mission for Sustainable Agriculture (NMSA) for the remaining period of Fourteenth Finance Commission.
- benefit directly and indirectly the farmers as well as local artisans and associated personnels engaged in bamboo sector including associated industries.
- focus on development of bamboo in limited States where it has social, commercial and economical advantage - North Eastern region and MP, Maharashtra, Chhattisgarh, Odisha, Karnataka, Uttarakhand, Bihar, Jharkhand, Andhra Pradesh, Telangana, Gujarat, TN and Kerala.

**Indian cities in WHO's 20 Most Polluted**

- Delhi and Varanasi are among the 14 Indian cities that figured in a list of 20 most polluted cities in the world in terms of PM<sub>2.5</sub> levels in 2016
- very high levels of PM<sub>2.5</sub> pollutants were Kanpur, Faridabad, Gaya, Patna, Agra, Muzaffarpur, Srinagar, Gurgaon, Jaipur, Patiala and Jodhpur followed by Ali Subah Al-Salem in Kuwait and a few cities in China and Mongolia.
- In terms of PM<sub>10</sub> levels, 13 cities in India figured among the 20 most-polluted cities of the world in 2016.

**Assam Study Materials Notes & MCQ Quiz**

Assam History | Assam Geography | Assam Polity | Assam Economy | Assam Art &amp; Culture



**South Asia Wildlife Enforcement Network (SAWEN)**

- The fourth meeting of SAWEN was held at Kolkata.
- SAWEN is regional inter-governmental wildlife law enforcement support body of South Asian
- Countries - combatting illegal trade in the region.
- launched in January 2011 in Bhutan. In 2016, the Union Cabinet of India adopted the statute of SAWEN.
- secretariat is in Kathmandu
- Eight South Asia countries - Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, Sri Lanka and Maldives

**International Biodiversity Day 2018: 22 May**

- to increase awareness on various biodiversity issues such as habitat destruction, marine pollution and climate change.
- first observed in 1993 by the Second Committee of the UN General Assembly.
- UN SDG # 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

**CBD**

- 1992 Earth Summit in Rio de Janeiro - adopted Convention on Biological Diversity - ratified by 196 nations.
- international legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources"

**Biodiversity Award for Arunachal Reserve**

- Singchung Bugun Village Community Reserve Management Committee (SBVCR) of Arunachal
- Pradesh was awarded the India Biodiversity Award, 2018 by the National Biodiversity Authority.

**Indore is India's cleanest city - Swachh Survekshan 2018**

- Indore is India's cleanest city for second year in a row, followed by Bhopal and Chandigarh
- Jharkhand has been declared the best performing state, followed by Maharashtra.
- Best city in Innovation and Best practices: Nagpur







- Best city in Solid Waste Management: Navi Mumbai
- The processing rate of solid waste management in India stands at 29 per cent

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**Swachh Survekshan**

- First launched in July 2017, a ranking exercise taken up by Government of India to levels of cleanliness and active implementation of Swachhata mission initiatives

**Cochin airport - UNEP** United Nations Environment Programme recognized Cochin International Airport as the **world's first fully solar energy-powered airport**.

**India's E-Waste Generation**

- India continues to be generating highest e-waste vis-à-vis China, USA, Japan and Germany-according to an ASSOCHAM-NEC study
- Maharashtra contributes the largest e-waste of 19.8%, followed by Tamil Nadu (13%) and Uttar Pradesh (10.1%) respectively.
- E-waste generated in India is about 2 million TPA (tonnes per annum), the quantity that is recycled is about 4, 38,085 TPA.
- mere 5% of India's total e-waste gets recycled due to poor infrastructure, legislation and framework.

**E-Waste Management Rules, 2016**

- Manufacturer, dealer, refurbisher and Producer Responsibility Organization (PRO) have been introduced as additional stakeholders in the rules.
- Compact Fluorescent Lamp (CFL) and other mercury containing lamp brought under the purview of rules.
- Collection mechanism based approach has been adopted to include collection centre, collection
- point, take back system etc for collection of e-waste by Producers under Extended Producer
- Responsibility (EPR).







- Option for setting up of PRO, e - waste exchange , e - retailer, Deposit Refund Scheme
- Pan India EPR Authorization by CPCB - replacing the state wise EPR authorization.
- manufacturer is also now responsible to collect e - waste generated

### UN World Day to Combat Desertification and Drought

- observed on June 17 to raise awareness on the global and national actions that address desertification, land degradation and drought.
- Established in 1994, the United Nations to Combat Desertification (UNCCD) is the sole legally binding international agreement linking environment and development to sustainable land management.
- The new **UNCCD 2018-2030 Strategic Framework** is the most comprehensive global commitment to achieve Land Degradation Neutrality (LDN)

### Uttarakhand HC declares animals to be 'legal persons'

- The entire animal kingdom, including avian and aquatic ones, are declared as legal entities having a distinct persona with corresponding rights, duties and liabilities of a living person.
- All the citizens throughout the State of Uttarakhand have been declared persons in loco parentis as the human face for the welfare/protection of animals.

### India's genetically modified crop area fifth largest in World

- India has the world's fifth largest cultivated area under GM crops, at 11.4 million hectares (mha) in 2017.
- entire GM crop area is under a single crop – cotton - incorporating genes from the Bacillus thuringiensis or Bt soil bacterium coding for resistance against heliothis bollworm insect pests.
- highest share in the world's total 189.8 mh GM crop area for 2017 to be of soyabean (94.1 mh), followed by maize (59.7 mh), cotton (24.1 mh), canola (10.2 mh), alfalfa (1.2 mh) and sugar-beet (0.50 mh).
- GM crops that are under regulatory consideration – include glyphosate-tolerant cotton and biotech hybrid mustard.





### National Bamboo Mission

- In October 2006, GOI had launched the National Bamboo Mission (NBM) on the basis of the National Mission on Bamboo Technology and Trade Development Report, 2003.
- to focus on research and development, plantation on forest and non-forest lands through Joint Forest Management Committees (JFMCs) or Village Development Committee (VDCs)
- Around 80 per cent of bamboo forests lie in Asia with India, China and Myanmar having 19.8 million hectares of bamboo.
- **India is the world's second largest cultivator of bamboo** after China, with 136 species and 23 genera spread over 13.96 million hectares.
- India's annual bamboo production is estimated at 3.23 million tonnes. - the country's share in the global bamboo trade and commerce is only 4 per cent.
- To facilitate the benefit flow to the farmers, bamboo outside forest areas has been excluded from the definition of tree of Indian Forest Act, 1927

### Ganga Vriksharopan Abhiyan

- National Mission for Clean Ganga (NMCG) is running "Ganga Vriksharopan Abhiyan" in five main stem Ganga basin states – Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal.

### National Centre for Polar and Ocean Research- India to expand polar research to Arctic

- renamed the National Centre for Antarctic and Ocean Research (NCAOR), since 1998, charged with conducting expeditions to India's base stations to arctic as the National Centre for Polar and Ocean Research
- India's earth sciences community also views the Himalayas as a "third pole" - already established a high-altitude research station in the Himalayas, called HIMANSH, at Spiti, Himachal Pradesh.
- **three bases in Antarctica**





- India is an observer at **the Arctic Council** — a forum of countries that decides on managing the region's resources and popular livelihood and, in 2015, set up an underground observatory, called **IndARC**, at the Kongsfjorden fjord, half way between Norway and the North Pole.
- In 1996, the Ottawa Declaration formally established the **Arctic Council** intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States
- **Arctic Council** Member States - Canada, the Kingdom of Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America.

#### International Tiger Day: 29 July

- the conservation strategy aimed at doubling them by 2022, Tx2
- latest WWF estimates (2016), there are only 3,890 tigers left in the wild, whilst at the beginning of the 20th century their number exceeded 100,000.
- Doubling wild tigers: In 2010, Saint Petersburg hosted the **Tiger Summit**, in which countries committed to the goal Tx2, i.e. **doubling wild tigers by 2022**.
- Tigers are on the rise for the first time in 100 years
- Celebrating tigers: Global Tiger Day is celebrated on the 29th of July worldwide, with numerous initiatives mostly organised by the 13 countries home to this feline: Bangladesh, India, Burma, Thailand, Cambodia, Indonesia, China, Malaysia, Vietnam, Laos, Bhutan, Nepal, and Russia.

**National Tiger Conservation Authority (NTCA)** has launched the **M-STrIPES** (Monitoring System for Tigers - Intensive Protection and Ecological Status), a mobile monitoring system for forest guards.

#### PARIVESH

- **PARIVESH** (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Singlewindow Hub) launched on World Biofuel Day, 10th of August, 2018.





### National Wildlife Genetic Resource Bank dedicated to Nation

- The Laboratory for the Conservation of Endangered Species (LaCONES), is a dedicated laboratory of the CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad and the only institute in the country working towards conservation of endangered wildlife using modern biotechnologies to save endangered wildlife species of India.
- Wildlife Genetic Resource Banking (GRB) is the systematic collection and preservation of tissues, sperm, eggs and embryos, genetic material.

### Khangchendzonga Biosphere Reserve in World Network of Biosphere Reserves (WNBR)

- Khangchendzonga Biosphere Reserve become the 11th Biosphere Reserve from India that has been included in the UNESCO designated World Network of Biosphere Reserves (WNBR).
- India has 18 Biosphere Reserves and with the inclusion of Khangchendzonga, the number of internationally designated WNBR has become 11, with 7 Biosphere Reserves being domestic Biosphere Reserves.
- Khangchendzonga National Park is also a World Heritage Site 'mixed' category.

### Revival of Cheetah Reintroduction Project

- The Madhya Pradesh forest to revive the plan to reintroduce cheetahs in the state's Nauradehi Wildlife Sanctuary.
- India's last spotted cheetah died in Chhattisgarh in 1947. the fastest land animal was declared extinct in India in 1952.
- Nauradehi was found to be the most suitable area for the cheetahs as its forests are not very dense to restrict the fast movement of the spotted cat.
- As per the earlier action plan, around 20 cheetahs were to be translocated to Nauradehi from Namibia in Africa.
- The species is IUCN Red Listed as vulnerable.
- MP houses six major tiger reserves and is often called as the 'tiger state'. Prominent are Bandhavgarh, Pench and Kanha tiger reserves.





**Nilgiri Tahr population increased**

the population of the Nilgiri tahr (an endangered mountain goat) at the Mukurthi National Park has grown by an impressive 18% in the last two years, from 480 to 568.

The Nilgiri Tahr - lives at altitudes of 1,100 to 2,700 meters in the mountainous grasslands and rocky cliffs of the southern portion of the Western Ghats.

**India's National REDD+ Strategy**

- The Strategy Report has been prepared by Indian Council of Forestry Research and Education (ICFRE), Dehradun.
- The Strategy builds upon existing national circumstances updated in line with India's National Action Plan on Climate Change, Green India Mission and India's Nationally Determined Contribution (NDC) to UNFCCC.
- The National REDD+ Strategy will be communicated to the UNFCCC
- REDD+ means "Reducing Emissions from Deforestation and forest Degradation", conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks in developing countries.
- India has communicated in its NDC - will capture 2.5 to 3 billion tonnes of Carbon dioxide through additional forest & tree cover by 2030.

**Green Agriculture**

- The Green Agriculture project synergises biodiversity conservation, agriculture production, and development.
- implemented by the Indian govt and FAO takes a novel approach to support the NBAP and synergise biodiversity conservation, agriculture production and development.
- being implemented in five landscapes adjoining Protected Areas/Biosphere Reserves: Madhya Pradesh, Mizoram, Odisha, Rajasthan and Uttarakhand
- India is signatory to the Convention on Biological Diversity.
- four of the 35 biodiversity hotspots are located in India, it is biodiversity-rich.
- India's National Biodiversity Action Plan (NBAP) recognises the importance of biodiversity for inclusive development.







- It envisages a transformation in Indian agriculture for global environmental benefits by addressing land degradation, climate change mitigation, sustainable forest management, and biodiversity conservation.

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### India Cooling Action Plan

- India is the first country in world to develop such a document - addresses cooling requirement across sectors and lists out actions which can help reduce the cooling demand.
- goal of ICAP is to provide sustainable cooling and thermal comfort for all while securing environmental and socio-economic benefits for the society.

### World Ozone Day on 16th September

- Theme: Keep Cool and Carry on: The Montreal Protocol

### Montreal Protocol (The Montreal Protocol on Substances that Deplete the Ozone Layer)

- the only environmental treaty which **enjoys universal ratification** of 197 UN members countries. recognized as the **most successful international environment treaty** in history.
- implementation led to **the phase-out of around 98% of ozone depleting chemicals**, averted more than 135 billion tonnes of carbon dioxide equivalent emissions.

### Ozone Depleting Substances

- those substances which deplete the ozone layer and are widely used in refrigerators, airconditioners, fire extinguishers, in dry cleaning, as solvents for cleaning, electronic equipment and as agricultural fumigants.
- controlled by Montreal Protocol include Chlorofluorocarbons (CFCs), Halon, Carbon tetrachloride (CCl<sub>4</sub>), Methyl chloroform (CH<sub>3</sub>CCl<sub>3</sub>), hydrobromofluorocarbons (HBFCs), Hydrochlorofluorocarbons (HCFCs), Methyl bromide (CH<sub>3</sub>Br), Bromochloromethane (CH<sub>2</sub>BrCl)



**PM Narendra Modi gets top United Nations Champions of the Earth award**

- awarded the United Nations' Champions of the Earth award for the year 2018.
- recognised Modi with its highest environmental honour in the policy leadership category for his extensive efforts to 'Beat Plastic Pollution'- including an ambitious pledge to eliminate all single-use plastic in the country by 2022.
- Cochin International Airport was also awarded for its leadership in use of sustainable energy in the category of entrepreneurial vision.
- The airport is world's first fully solar-powered airport.
- The Champions of the Earth award is the United Nations highest environmental honour recognizing
- visionary people and organisations all over the world that exemplify leadership and advocate action on sustainable development, climate change and a life of dignity for all.

Sikkim was awarded **FAO's Future Policy Gold Award** for 100% organic farming.

**GI Tag for Alphonso**

- Alphonso from Ratnagiri, Sindhudurg, Palghar, Thane and Raigad districts of Maharashtra, has recently been registered as Geographical Indication (GI).
- The king of mangoes, Alphonso, better known as 'Hapus' in Maharashtra
- long been one of the world's most popular fruit and is exported to various countries including Japan, Korea and Europe, USA and Australia

**Geographical Indication or a GI**

- indication used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- an assurance of quality and distinctiveness - attributable to its origin in that defined geographical locality.
- governed by WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).



**Shahi Litchi gets GI tag**

- After Katrani rice, Jardalu mango, and Magahi paan (betel vine), Bihar's Shahi litchi has got the GI tag and has become an exclusive brand in the national and international market.
- Bihar produces 40 per cent of the litchi grown in the country on 38 per cent of the area.

**Delhi's Air Quality set to Worsen**

- likely to deteriorate as burning of paddy stubble by farmers in Punjab and Haryana intensifies.
- An AQI between 0-50 is considered 'good', 51-100 'satisfactory', 101-200 'moderate', 201-300 'poor', 301-400 'very poor', and 401-500 'severe'.
- According to the System of Air Quality and Weather Forecasting and Research (SAFAR), air quality is set to worsen, as levels of two main pollutants, PM 2.5 and PM 10

**Stubble Burning**

- Farmers in Punjab and Haryana usually burn the paddy straw after combine harvesters leave a 7-8 inch stubble on the field following harvest, and farmers have to prepare the field for planting of wheat crop in two to three weeks.

**India's First Dolphin Research Centre**

- National Dolphin Research Centre (NDRC), India's and Asia's first, is likely to be set up on the banks of the Ganga river in the Patna University premises.
- important role in strengthening conservation efforts and research to save the endangered mammal.
- **R.K. Sinha**, known as the **Dolphin Man** for his research on Gangetic dolphins as professor in Patna University
- The Gangetic River Dolphin - is **India's national aquatic animal**



**Centre sets 'Minimum River Flows' for the Ganga**

- In a first, the Union government has mandated the minimum quantity of water - or ecological flow - that various stretches of the Ganga must necessarily have all through the year.
- The new norms would require hydropower projects located along the river to modify their operations
- so as to ensure they are in compliance.
- The Central Water Commission would be the designated authority to collect relevant data and
- submit flow monitoring-cum-compliance reports on a quarterly basis to the National Mission for Clean Ganga (NMCG)

**UNDP supported project to boost Climate Resilience**

- the approval of a US\$43 million grant from the Green Climate Fund for project to support climate resilience of millions of people living in the coastal states of Andhra Pradesh, Maharashtra and Odisha.
- India's coastline is expected to be among the regions most affected by climate change globally.
- The Climate change projections predict a 2°C rise in average annual temperatures across South Asia by the mid-21st century, exceeding 3°C by the late 21st century.
- an increase in global mean surface temperatures of 2°C will make India's monsoon highly unpredictable, while a 4°C increase would result in an extremely wet monsoon occurring every 10 years by the end of the century.
- India has about 6,740 km<sup>2</sup> of mangroves, including some of the largest mangrove forests in the world.

**SDG Goal 13-** Take urgent action to combat climate change and its impact.

**The Green Climate Fund (GCF)**

- new global fund created to support the efforts of developing countries to respond to the challenge of climate change. GCF helps developing countries limit or reduce their greenhouse gas (GHG) emissions and adapt to climate change.
- set up by the 194 countries who are parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010
- headquarters in **Songdo**, Republic of Korea, in December 2013.





**Siberian Amur falcons in Umru village of Assam-Meghalaya Border**

- Amur falcons, the world's longest travelling raptors.
- Doyang Lake in Nagaland's Wokha district is better known as a stopover for the Amur falcons during their annual migration from their breeding grounds in Mongolia and northern China to warmer South Africa, a flock has been seen since 2010 in Umru.
- Local community organises the Amur Falcon Festival since 2015 to celebrate the "birds that have this back-of-beyond area famous".

**Living Planet Report Earth's Wild Animal population plummets 60% in 44 years:**

- Living The Living Planet Report 2018 has been published by the World Wide Fund for Nature (WWF).

**World Wide Fund for Nature (WWF) -**

- international non-governmental organization founded in 1961
- wilderness preservation, and the reduction of human impact on the environment
- world's largest conservation organization with over five million supporters worldwide

## Appointment/Awards

**Sikkim** - FAO's Future Policy Gold Award for 100% organic farming.

**Seoul Peace Prize for 2018:** PM Narendra Modi

**World Food Prize 2018-** awarded to Lawrence Haddad and Dr. David Nabarro.

**Justice Adarsh Kumar Goel** - Chairperson of National Green Tribunal.



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