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Report on Clause 6 of Assam Accord

Why in News

Recently, a Ministry of Home Affairs appointed committee on implementation of **Clause 6 of the Assam Accord** has proposed a **definition for 'Assamese people'** in its report.

The 14-member committee, **headed by the High Court judge Biplab Kumar Sarma** was set up in 2019 **following widespread protests against the Citizenship Amendment Act, 2019.**

Key Points

- **Assam Accord:**
 - It was a **tripartite accord** signed between the **Government of India, State Government of Assam and the leaders of the Assam Movement** in 1985.
 - The signing of the Accord **led to the conclusion of a six-year agitation** that was launched by the All Assam Students' Union (AASU) in 1979, **demanding the identification and deportation of illegal immigrants** from Assam.
 - It sets a **cut-off** of midnight of **24th March 1971**, for the detection of **illegal foreigners in Assam.**
 - However, the **demand** was for detection and deportation of migrants who had illegally entered Assam after **1951.**

- **Clause 6 of the Accord:**
 - It says that **constitutional, legislative and administrative safeguards**, as may be appropriate, shall be provided to protect, preserve and promote the cultural, social, linguistic identity and heritage of the **Assamese people**.
 - The committee chaired by **Biplab Kumar Sarma** was constituted **to define ‘Assamese People’** and institute safeguards for them.
- **Recommendation of the Committee:**
 - **Definition of Assamese:** The report **proposes January 1951 as the cut-off date** for any Indian citizen residing in Assam **to be defined as an Assamese** for the purpose of implementing Clause 6.
 - **Reservation for Assamese:** The report seeks reservation for Assamese in Parliament, state assembly, local bodies. It recommended creating an Upper House (Legislative Council of Assam) whose seats will be reserved for the ‘Assamese people’.
 - The report also seeks **quotas in government jobs**.
 - **Regulation of Outsiders:** The report recommends regulation of entry of people from other states into Assam, which include the implementation of an **Inner Line Permit (ILP)** regime in the state.
 - The ILP is a system in which a special permit is required by people from other regions of India to visit the state.
 - Currently the ILP is applicable in **Manipur, Arunachal Pradesh, Nagaland and Mizoram**.
 - **Other Rights:** The report also talks about issues related to land and land rights, linguistic, cultural and social rights and protection of the state’s resources and biodiversity.
- **Issues Involved:**
 - According to the recommendations, people who migrated between 1951 and 1971, including large sections of post-Partition refugees, **would be Indian citizens under the Assam Accord** and the **National Register of Citizens (NRC)**, but they **would not be eligible for safeguards meant for “Assamese people”** under Clause 6 of the Accord.
 - **East Bengal migrants** who entered Assam before 1951 would be **considered Assamese**.
 - There is **no mechanism** to prove that a person has been in Assam prior to 1951.
 - The 1951 **NRC is not available in several parts** of the state and the **current NRC being made uses 1971 as a cut-off**.

Way Forward

- The key legal and constitutional issue that needs to be considered is whether the definition of an Assamese or a Bengali or a Punjabi or a Tamil define her/his Indian-ness or an Indian citizenship.
- The definition of Assamese is connected to the NRC process as the Assam Accord cannot be reviewed in isolation of one clause or the other.

Source: IE

New Proposals for Solar Power

Why in News

Recently, the **Ministry of New and Renewable Energy** has received proposals from various players for over **10 gigawatts (GW)** of fresh **solar** equipment manufacturing.

Earlier, a **750 megawatt (MW) solar project** was also inaugurated in **Rewa, Madhya Pradesh**.

These moves are in line with India's commitment to **attain the target of 175 GW of installed renewable energy capacity by 2022** including **100 GW of solar installed capacity**.

Key Points

- This **rise of interest in the domestic manufacture** of solar equipment coincides with **other measures of the government to promote domestic industry** like increasing **duties on imports across sectors, including solar power**.
 - There is a proposal of increasing customs duty to around **20-25% on solar equipment** and also for a **5% interest subvention scheme** for the domestic manufacturing of ingots, wafers and cells.
 - However, these duty changes should be in compliance with the **World Trade Organisation** (WTO) standards.

- **Solar Power and India:**

- There has been a **significant progress in solar capacity addition** since 2014, with India **progressively emerging as the world's third largest solar market**.
- However, the **domestic solar equipment manufacturing industry has largely failed** to capitalise on the opportunity.
 - **Despite a 20GW demand** for solar cell manufacturing, India's **current average annual capacity is only around 3GW**.
 - **Nearly 80%** of the inputs and components are **imported from China** as it was the **top exporter of solar cells and modules to India in the Financial Year 2019-20**, accounting for USD1.68 billion of the product into the country.
- India has **implemented safeguard duties on import of solar equipment from China and Malaysia**, which have been **extended until July 2021** at a rate of around 15%.

However, a **safeguard duty is of limited duration** and will therefore not induce people to make long-term commitments in terms of investments.
- **Despite all these initiatives** to incentivise domestic production, the safeguard duty, domestic content requirement policy and an approved list of models and manufacturers, the **expected scale-up has not materialised**.

There are about **16 solar cell manufacturers in India** of which **only half have a manufacturing capacity of 100 MW or higher**.
- **Reasons for Less Development of Solar Energy in India:**
 - Solar cell manufacturing is a **complicated process** that is **technology and capital intensive** and it also upgrades every 8-10 months.
 - The **global market** of solar wafer and ingot manufacturing is **dominated by China**, whose companies **dominate the Indian solar components market too** with their competitive pricing.

Way Forward

- Strong financial measures, promotion of research and development, proper mechanisms to tackle China's dumping of solar equipment are few of the steps required to boost the solar energy and its production in the country.
- The government's move to shift from the use of short-term safeguard duties to protect domestic manufacturers to the imposition of customs duties has induced the industry to make long-term commitments in terms of investments.
- It is an indication that the centre's **Atmanirbhar Bharat Abhiyaan** could be yielding early results in the solar energy space.

Source: IE

Transparent Taxation – Honoring the Honest

Why in News

Recently, the Prime Minister of India launched the ‘**Transparent Taxation - Honoring The Honest**’ platform to honour the honest taxpayers of the country.

Key Points

- **The Transparent Taxation Platform:**
 - It is aimed at **bringing transparency in income tax systems and empowering taxpayers.**
 - The **main features** of the platform are **faceless assessment, faceless appeal and taxpayer charter.**
 - The **faceless assessment and taxpayer charter** will come into place immediately from the launch, while the **faceless appeal** is going to be applicable from 25th **September 2020.**
 - **Faceless Assessment:** It aims to **eliminate human interface** between the taxpayer and the income tax department.
 - There will be no need for the taxpayer to visit the income tax office or the officer.
 - The selection of a taxpayer is possible through systems using analytics and **Artificial Intelligence.**
 - **Faceless Appeal:** Under the system, appeals will be randomly allotted to any officer in the country. The identity of the officer deciding the appeal will remain unknown.
 - **Taxpayer Charter:** This outlines the rights and responsibilities of both tax officers and taxpayers.

- **Other Recent Direct Tax Reforms:**

- The **Central Board of Direct Taxes (CBDT)** has carried out several major tax reforms in direct taxes in recent years. The **focus of the tax reforms has been on reduction in tax rates and on simplification of direct tax laws.**
 - **Corporate Tax** rates were reduced from 30% to 22% in 2019. For new manufacturing units the corporate tax rates were reduced to 15%.
 - **Dividend Distribution Tax** was also abolished in 2019.
- The CBDT has also taken several initiatives for bringing in **efficiency and transparency** in the functioning of the Income Tax (IT) Department, such as:
 - Bringing more transparency in official communication through the newly introduced **Document Identification Number (DIN)** wherein every communication of the Department would carry a computer generated unique document identification number.
 - **Pre-filing income tax returns** to increase the ease of compliance for taxpayers and to make compliance more convenient for individual taxpayers.
 - **Direct Tax Vivad se Vishwas Act, 2020** to provide for resolution of pending tax disputes.

Source: PIB

Mega Covid Testing Lab

Why in News

The **Council of Scientific and Industrial Research (CSIR)** is working on developing mega labs to speed up testing as well as improve the accuracy of testing for **Covid-19** positive cases.

Key Points

- Large machines, called **Next Generation Sequencing machines (NGS)** will be modified to sequence 1,500-3,000 viral genomes at a go for detecting the SARS-CoV-2 novel coronavirus in these labs.
 - These machines are also used for **sequencing human genomes.**
 - The NGS also found **two lineages of coronaviruses** which were unknown in Indian populations so far.
- The CSIR has partnered with the US-based Illumina, a company that specialises in the manufacture of NGS machines.
 - Five NGS machines are currently available in India.

- So far, 3,086 sequences of the virus isolated from humans have been shared by 57 countries, with India sharing **nine whole genome sequences of the novel coronavirus (SARS-CoV-2)** with the **Global Initiative on Sharing All Influenza Data (GISAID)**.
- **Benefits:**
 - **Accuracy:** The NGS tests has a sensitivity of 97.53% as compared to 70%-80% accuracy of **RT-PCR (Reverse Transcription Polymerase Chain Reaction)** and 50% accuracy of antigen tests.
 - These tests detect the possible presence of the virus even in several instances where the RT-PCR tests miss out on them.
 - This is primarily because the RT-PCR test identifies the SARS-CoV-2 virus by exploring only specific sections of the virus whereas the genome method can read a **bigger chunk of virus genome** and thereby provide **more certainty**.
 - **Confirmation:** NGS identified cases as either positive and negative when RT-PCR found them to be **'inconclusive'**. So this can also be used as a **confirmatory test**
 - **Reliability:** It can also trace the evolutionary history of the virus and track mutations more reliably.

This can help identify more places where **SARS-COV-2** viruses differ from other related viruses.
 - **Mass Testing:** According to the **Indian Council of Medical Research (ICMR)**, the NGS tests can space up from the present approx. 7.5 lakh tests per day to at least **a million per day**.
 - Unlike the RT-PCR that needs **primers and probes**, which is a key hurdle in operationalising such tests on a mass scale early on in the pandemic, the NGS does not need primers and probes, and only needs **custom reagents**.
 - **Primers** are short sequences of DNA used to amplify a particular DNA sequence. A **probe** is a small radioactively or fluorescently labelled DNA sequence used to identify a particular DNA sequence.
 - **Reagent** for DNA is designed to easily prepare DNA extracts from animal tissues that can be used directly in PCR.
 - **Other Uses:** Establishing “hubs” capable of **whole genome sequencing** would help track significant mutations in the virus and can be repurposed for any kind of outbreak, be they of viral or bacterial origin.

NGS can also be used to develop **new diagnostic tests for Covid-19**.
 - **Surveillance and Tracing :** Due to limited accuracy and capacity of existing tests, a sizeable population is **falsely negative**. NGS can help in serving a larger purpose of continuous surveillance of large pools like industrial hubs, commercial establishments or places where an outbreak is likely.

Testing for Covid 19

Different methods of testing are being experimented in the country to trace **Covid-19** infection. Some of these include:

- **RT PCR Tests**
- **Rapid Antigen Detection Tests**
- **RTnPCR Tests**
- **Feluda Tests**
- **ELISA Antibody Tests**

Source: TH

Perseids Meteor Shower

Why in News

The Perseids meteor shower will be active from 17th-26th August 2020.

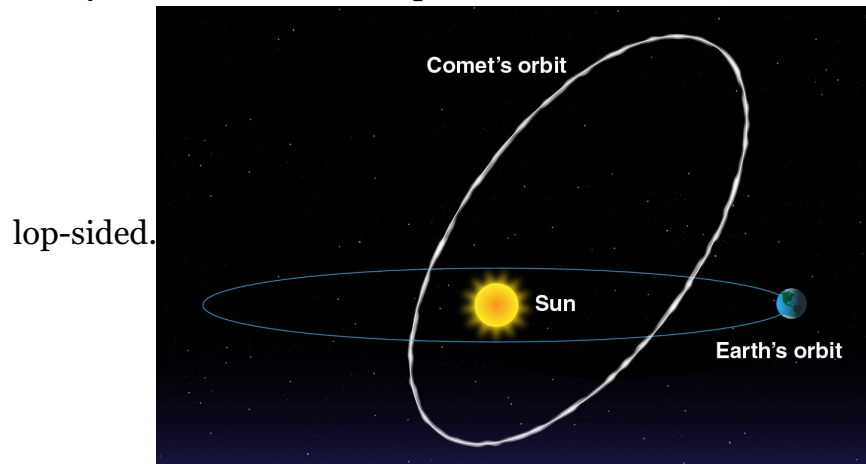
This is an **annual celestial event** and is considered the best meteor shower, as many bright meteors and fireballs shoot through the sky making it easy for people to watch it from Earth.

Key Points

- **Meteor:** It is a **space rock or meteoroid** that enters Earth's atmosphere.
 - Meteoroids are objects in space that range in size from dust grains to small asteroids.
 - Most are pieces of other, larger bodies that have been broken or blasted off. These come from **comets, asteroids, planets and the Moon**.
 - When **meteoroids enter Earth's atmosphere** (or that of another planet, like Mars) at high speed and **burn up**, the fireballs or “shooting stars” are called meteors.
 - As the space rock falls towards the Earth, the resistance—or drag—of the air on the rock makes it extremely hot.
 - As it passes through the atmosphere, it leaves behind **streaks of glowing gas (shooting star)** that are visible to the observers.
 - **Fireballs** are larger explosions of light and color that can persist longer than an average meteor streak. This is due to the fact that fireballs originate from larger particles of cometary material.
 - When a meteoroid survives its journey through the atmosphere and hits the ground, it's called a **meteorite**.

- **Meteor Shower:**

- When **Earth encounters many meteoroids** at once, it is called a meteor shower.
 - Comets, like Earth and the other planets, also orbit the sun. Unlike the nearly circular orbits of the planets, the orbits of comets are usually quite



- As a comet gets closer to the sun, **some of its icy surface boils off, releasing lots of particles of dust and rock (meteoroids).**
- This comet debris gets **scattered** along the comet's path, especially in the **inner solar system** (includes planets Mercury, Venus, Earth and Mars) as the sun's heat boils off more and more ice and debris.
- Then, several times each year as **Earth** makes its journey around the sun, its orbit **crosses the orbit of a comet**, which means Earth **encounters a bunch of comet debris.**
- Meteor showers are **named for the constellation where the meteors appear to be coming from.** So, for example, the **Orionids Meteor Shower**, which occurs in **October** each year, appears to be originating near the **constellation 'Orion the Hunter'.**
- **Perseids Meteor Shower:**
 - It peaks every year in **mid-August.** It was first observed over 2,000 years ago.
 - The Perseids occur as the **Earth runs into pieces of cosmic debris left behind by the comet Swift-Tuttle.**
 - The cloud of debris is about 27 km wide, and at the peak of the display, between 160 and 200 meteors streak through the Earth's atmosphere every hour as the pieces of debris, travelling at some 2.14 lakh km per hour, burn up a little less than 100 km above the Earth's surface.
 - It gets its name from the **constellation Perseus.**
 - **Pollution and monsoon clouds** make the **Perseids difficult to view from India.**
- **Comet Swift-Tuttle:** It was discovered in **1862** by Lewis Swift and Horace Tuttle and **takes 133 years to complete one rotation around the sun.**

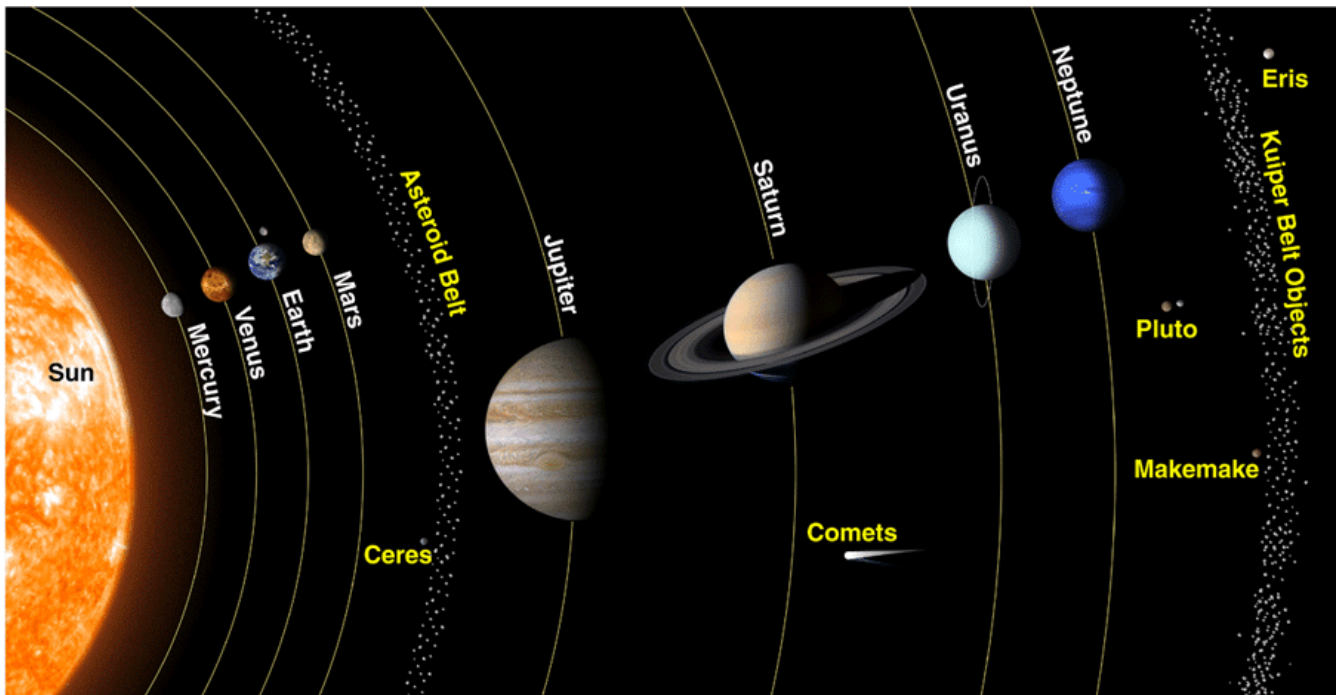
Source: IE

Dwarf Planet Ceres

Why in News

As per the data collected by **NASA's Dawn spacecraft**, dwarf planet **Ceres** reportedly has **salty water underground**.

Dawn (2007-18) was a **mission** to the **two** most massive bodies in the main **asteroid belt** - **Vesta** and **Ceres**.



Key Points

- **Latest Findings:**

- The scientists have given **Ceres** the status of an “**ocean world**” as it has a big **reservoir of salty water underneath its frigid surface.**
 - This has led to an increased interest of scientists that the **dwarf planet was maybe habitable or has the potential** to be.
 - **Ocean Worlds** is a term for ‘**Water in the Solar System and Beyond**’.
- The salty water originated in a **brine reservoir** spread hundreds of miles and about 40 km beneath the surface of the Ceres.
- Further, there is an evidence that Ceres remains **geologically active** with **cryovolcanism - volcanoes oozing icy material.**

Instead of molten rock, cryovolcanoes or **salty-mud volcanoes release frigid, salty water sometimes mixed with mud.**

- **Subsurface Oceans on other Celestial Bodies:** Jupiter’s moon Europa, Saturn’s moon Enceladus, Neptune’s moon Triton, and the dwarf planet Pluto.

This provides scientists a means **to understand the history of the solar system.**

- **Ceres:**

- It is the **largest object in the asteroid belt** between Mars and Jupiter.

It was the **first member of the asteroid belt** to be discovered when **Giuseppe Piazzi spotted it in 1801.**
- It is the **only dwarf planet located in the inner solar system** (includes planets Mercury, Venus, Earth and Mars).

Scientists classified it as a **dwarf planet in 2006.**
- It has a **diameter of about 950 km**, which is **more than one-fourth of Earth’s moon.**
 - It takes **1,682 Earth days, or 4.6 Earth years**, to make **one trip around the sun.**
 - It completes one **rotation around its axis** every **9 hours.**
- It **does not have any moon or rings.**
- It has a 92 km wide **crater named Occator** located in its northern hemisphere.

Dwarf Planets

- According to the **International Astronomical Union (IAU)**, which sets definitions for planetary science, a dwarf planet is a celestial body that - orbits the sun, has enough mass to assume a nearly round shape, has not cleared the neighborhood around its orbit and is not a moon.
- The **first five recognised dwarf planets** are **Ceres, Pluto, Eris, Makemake and Haumea.**

Hornbill Habitat Loss

Why in News

A study based on satellite data has indicated a **high rate of deforestation** in major **hornbill habitats** in **Arunachal Pradesh** and a part of **Assam**.

Key Points

- The study fine-scale satellite imagery to assess **Papum Reserve Forest (RF)** adjoining **Pakke Tiger Reserve (Pakhui Tiger Reserve)** in Arunachal Pradesh.
- The results show the loss and degradation of critical hornbill habitat in the biologically rich forests of the Indian Eastern Himalaya.
- The satellite data pointed to alarming deforestation rates in Papum RF with annual loss rates as high as 8.2 sq.km. as per estimates from 2013-2017 where **forest cover declined to 76%** of the total RF area.
- According to the **Global Forest Watch** 2020 report, Arunachal Pradesh lost 1,110 sq.km. of primary forest from 2002-2019.
- These areas are affected by **illegal logging** and **ethnic conflict**.
- The forests are under pressure due to **agricultural expansion, conversion to plantations or logging**.

Papum Reserve Forest

- Papum Reserve Forest is geographically situated in the south west of East Kameng district in Arunachal Pradesh.
- It is surrounded by **Itanagar Wildlife Sanctuary** to the east and **Pakke Wildlife Sanctuary** to the west.
- It is a part of the **Indo-Burma Biodiversity hotspot** in India.
There are four Biodiversity Hostpots in India : **Himalaya, Indo-Burma, Sundalands and Western Ghats and Sri Lanka**.
- Papum Reserve Forest forms part of the Eastern Himalayas Endemic Bird Area.
 - An **Endemic Bird Area** is an area of land identified by BirdLife International as being important for habitat-based bird conservation because it contains the habitats of restricted-range bird species.
 - **BirdLife International** is a global partnership of non-governmental organizations that strives to conserve birds and their habitats.
- It is covered by Subtropical Dry Evergreen and Semi-evergreen Forests, while the higher areas are under Subtropical Broadleaf Hill Forest cover.

Hornbills



- The **hornbills** (Bucerotidae) are a family of birds found in **tropical and subtropical Africa and Asia**.
- India is home to **nine species of hornbills**. The northeastern region has the highest diversity of hornbill species within India.
- Papum RF is a nesting habitat of three species of hornbills: the **great hornbill (*Buceros bicornis*)**, **wreathed hornbill (*Aceros undulatus*)** and the **Oriental pied hornbill (*Anthracoceros albirostris*)**, Wreathed and Oriental Pied. The 862 sq.km. Pakke reserve houses a fourth species, the **Rufous-necked hornbill (*Aceros nipalensis*)** species are found here.
- The **great hornbill** is the **state bird of Arunachal Pradesh and Kerala**.
- **Significance:**
 - They are the cultural symbols of some ethnic communities in the northeast, specifically the **Nyishi** of Arunachal Pradesh.
 - They are referred to as ‘forest engineers’ or ‘farmers of forest’ for playing a **key role in dispersing seeds of tropical trees** and indicate the prosperity and balance of the forest they build nests in.
- The **Hornbill festival** celebrated in **Nagaland** is named after the bird – Hornbill which is the most revered and admired bird for the Nagas.
- **Conservation Status:**
 - Currently, 26 out of the 62 species (40%) of hornbills are **Globally Threatened or Near Threatened** with extinction, with all other species listed as **Least Concern**, according to the **International Union for Conservation of Nature (IUCN) Red List** of Threatened Species.
 - The **great hornbill** is evaluated as **vulnerable**.
 - It is protected at the highest level under **Schedule I of the Wildlife Protection Act, 1972**.

- **Threats:**

- Hornbills are **hunted** for their casques — upper beak — and feathers for adorning **headgear**. They are also **poached** for their **meat** and **medicinal value** of their body parts.

A conservation programme promoting the use of **fibre-glass beaks for headgear** instead of real hornbill casques has helped reduce some threat to it.

- Illegal logging i.e. cutting of tall trees where the hornbill birds nest and feed has led to **destruction of its natural habitat**.

Way Forward

The results of the study underscore the need for Hornbill habitat conservation efforts in India. Hornbill conservation must proceed along the twin paths of weaning away tribal hunters through the provision of substitutes, and nursing forest fragments back to health using science.

Source: TH

World Elephant Day

Why in News

The **World Elephant Day** is celebrated on **12th August every year** to spread awareness for the conservation and protection of the largest mammal on land.

The day was **launched in 2012** to bring attention to the urgent plight of **Asian and African elephants**.

Key Points

- **Asian Elephants:** There are **three subspecies** of Asian elephant which are the **Indian, Sumatran and Sri Lankan**.
 - **Global Population:** Estimated 20,000 to 40,000.
 - The **Indian subspecies has the widest range** and accounts for the majority of the remaining elephants on the continent.

There are **around 28,000 elephants in India** with around **25% of them in Karnataka**.
 - **IUCN Red List Status: Endangered.**
 - **Wildlife (Protection) Act, 1972: Schedule I.**

- **African Elephants:** There are **two subspecies of African elephants**, the **Savanna (or bush) elephant** and the **Forest elephant**.
 - **Global Population:** Around 4,00,000.
 - **IUCN Red List Status: Vulnerable.**
 - Earlier in July 2020, **Botswana (Africa) witnessed the death of hundreds of elephants.**
- **Concerns:**
 - Escalation of poaching.
 - Habitat loss.
 - **Human-elephant conflict.**
 - Mistreatment in captivity.
 - Abuse due to elephant tourism.
- **Steps Taken for Conservation:**
 - Plans and programmes to **arrest their poachers and killers.**
 - **Declaration and establishment of various elephant reserves** across the states. For example, **Mysuru and Dandeli elephant reserves** in Karnataka.
 - Clean areas from **lantana and eupatorium (invasive species)** as they prevent the growth of grass for elephants to feed on.
 - Barricades to **prevent man-elephant conflicts.**
 - Measures for establishment of a **cell to study forest fire** prevention.
 - **Gaj Yatra** which is a **nationwide awareness campaign** to celebrate elephants and highlight the necessity of **securing elephant corridors.**
 - The **Monitoring the Illegal Killing of Elephants (MIKE)** programme, launched in **2003**, is an **international collaboration** that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.
 - **Project Elephant:** It is a **centrally sponsored scheme** and was launched in February 1992 for the **protection of elephants**, their habitats and corridors.
 - The **Ministry of Environment, Forest and Climate Change** provides the financial and technical support to major elephant range states in the country through the project.
 - Even **mahouts** (people who work with, ride and tend an elephant) **and their families** play an important part in the welfare of elephants.

Source: TH
