

Time: 45 min

Date: 05-10-2021

## Government Schemes

### Swachh Bharat Mission-Urban 2.0 & AMRUT 2.0

Syllabus: GS2/ Government policies & intervention, Government Schemes

#### In News

- Recently, the Prime Minister has launched the **second phases of Swachh Bharat Mission-Urban (SBM-U) and Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**.

#### Swachh Bharat Mission-Urban (SBM-U)

- **About:**
  - It was announced by the PM on 15th August 2014 but the mission was formally **launched on 2nd October 2014**.
- **Objectives:**
  - Eradication of open defecation in all statutory towns.
  - 100% scientific management of municipal solid waste in all statutory towns.
  - Effecting behaviour change through Jan Andolan.
- **Performance of SBM-U:**
  - Revolutionized the sanitation space in urban India, by **providing 100% access to sanitation facilities** in urban India.
  - Over **70 lakh households, community and public toilets** have been built, which are providing safe and dignified sanitation solutions for all.
    - Access to sanitation facilities is further enhanced through **digital innovation** such as **SBM Toilets on Google Maps**.
  - Under this, Urban India was declared **open defecation free in 2019** following which the Mission has propelled urban India on the path of sustainable sanitation, with over 3,000 cities and over 950 cities being **certified ODF+ and ODF++** respectively.
  - Digital enablements such as **Swachhata App**, the digital grievance redressal platform introduced by **MoHUA in 2016**, has reinvented the way in which citizen grievance redressal is managed.

- The App has resolved over **2 crore citizen complaints** to date with active engagement from citizens. MoHUA has recently launched the revamped version of **Swachhata App 2.0**.

- **Features of SBM-U 2.0:**

- Ensuring complete access to sanitation facilities to serve additional populations migrating from rural to urban areas in search of employment and better opportunities over the next 5 years (through more construction of public toilets).
- **Complete liquid waste management in cities** in less than **1 lakh population**, this will ensure that all wastewater is safely contained, collected, transported and treated so that no wastewater pollutes our water bodies.
- **Material Recovery Facilities, and waste processing facilities** will be set up, with a focus on phasing out single-use plastic.
- All statutory towns will become **at least ODF+**; and all cities with <1 lakh **population ODF++**. Systems and processes will be in place so that all waste water is safely treated and optimally reused and no untreated wastewater pollutes water bodies.
- Regarding Solid Waste Management, it is expected that all cities will achieve at least **3-star Garbage Free certification** under SBM-U 2.0.
- Special focus will be put on the well-being of sanitation and informal waste workers, through the provision of personal protective equipment and safety kits, linkages with government welfare schemes along with their capacity building.

### **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**

- **Nodal Ministry:**

- Ministry of Housing and Urban Affairs (MoHUA)

- **About:**

- AMRUT was launched as the **first water-focused Mission in 2015**, with a total Mission outlay of ₹ 1,00,000 crore.

- **Objective of AMRUT 2.0:**

- To provide 100% coverage of water supply to all households in around 4,700 ULBs.

- **Features:**

- Upscaling from 500 cities covered under AMRUT with **1 lakh+ population** to all 4,372 cities, covering 100% urban India.

- **Notification on property tax** related to circle rates & increasing periodically, and user charges related to O&M costs is a mandatory reform under AMRUT 2.0.
- **Incentive-based reforms** like Rejuvenation of water bodies in cities; Reducing non-revenue water to 20%; Rainwater harvesting in all institutional buildings; Reuse of 20% treated wastewater; Reuse of wastewater to meet 40% industrial water demand.
- **Pey Jal Survekshan** will be conducted in cities to ascertain the equitable distribution of water, reuse of wastewater and mapping of water bodies w.r.t. quantity and quality of water through a challenging process.
- **Significance:**
  - This will promote the **circular economy of water** through the formulation of the **City Water Balance Plan** for each city, focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation.
  - The **digital economy** will be promoted through being a **Paperless Mission**.
  - The Mission seeks to promote **AatmaNirbhar Bharat** through encouraging Startups and Entrepreneurs.
  - This reform has helped **improve India's rank in Ease of Doing Business** in construction permits to 27 in **Doing Business Report (DBR) 2020** of **World Bank** from 181 in 2018.

Source: [PIB](#)

## International Relations

### **Tax Inspectors Without Borders (TIWB) Programme in Seychelles**

**Syllabus:** GS 2/International Relations, GS 3, Indian Economy & related issues

#### In News

- Recently, Tax Inspectors Without Borders (TIWB) launched its programme in Seychelles.
  - India was chosen as the Partner Administration and has provided a Tax Expert for this programme.

#### About the Programme

- This programme is expected to be of 12 months duration.
- In this duration, India will collaborate with the TIWB Secretariat and the UNDP Country Office in Mauritius and Seychelles.

- The **aim** is to **aid Seychelles in strengthening its tax administration** by
  - transferring technical know-how and skills to its tax auditors through sharing of best audit practices.
- The **focus of the programme** will be on **Transfer Pricing cases** of tourism and financial services sectors.

### **Transfer Pricing**

- In taxation and accounting, transfer pricing refers to
  - the rules and methods for pricing transactions within and between enterprises **under common ownership or control**.
  - E.g.: Say an e-commerce giant 'X India Ltd' will try to buy keyboards from 'X USA Ltd' at higher prices than the market rate in order to shift its profit margin to the USA.
  - Thus, the tax burden for 'X India Ltd' will reduce and the profitability of the parent company 'X USA Ltd will increase'.
- They are active tools used by many MNCs to avoid or evade tax by shrinking the profit margins.
  - The mechanism described above is related to **base erosion and profit shifting (BEPS)**.
- Few mechanisms to curb it are
  - Advance Transfer Pricing Agreements
  - Minimum percentage of revenue as tax and
  - Close scrutiny by setting market prices as a benchmark.

- This programme is the **6th TIWB programme** which has been **supported by India by providing Tax Expert**.
  - In the past, India has also extended its support to Bhutan under the same program.
  - It depicts Indian commitment to **South-South Cooperation, SAGAR initiative** and **elder brother approach** to the Indian Ocean Nations.

### **Tax Inspectors Without Borders (TIWB)**

- It is a joint initiative of
  - the United Nations Development Programme (UNDP) and
  - the Organisation for Economic Cooperation and Development (OECD).

- It was launched in July 2015.
- **Aim:** To strengthen developing countries' auditing capacity and multinationals' compliance worldwide.
  - It is a capacity-building programme.
- **Modus Operandi**
  - It deploys qualified experts in developing countries across Africa, Asia, Eastern Europe, Latin America and the Caribbean.
  - They train the local countries' personnel in fields of
    - tax capacity and audits,
    - criminal tax investigations and
    - the effective use of automatically exchanged information.
- TIWB assistance has led to increased domestic resource mobilisation in some of the least developed countries in the world.

### India Seychelles Relations



Courtesy: [Britannica](https://www.britannica.com)

### **The beginning of the Relations and Current Status**

- **Military tie up/ Security cooperations:**
  - India established diplomatic relations with Seychelles in 1976 after its independence.
  - Since then Indian Armed Forces have regularly sent its contingent to take part in the Seychelles National Day celebrations.
  - India gifted and installed six coastal surveillance radar systems in Seychelles in 2015 enabling better coastal security for Seychelles.
  - The Seychelles government has leased **Assumption Island** to the Indian Navy to build an overseas base of operations there.
- **Engagement on Economic and Environment Front:**
  - India enjoys a trade surplus with Seychelles.
  - The Tax Information Exchange Agreement (TIEA) between India and Seychelles was signed in August 2015.
  - The Blue Economy Protocol between India and Seychelles was signed in August 2015.
- **Multilateral Forums**
  - India is an observer nation of the Indian Ocean Commission, of which Seychelles is a member.
  - Both nations are the founding members of the International Solar Alliance (ISA).
  - The SAGAR initiative of India is supported by Seychelles.
- **Cultural Relations**
  - Cultural Exchange Programme (CEP) was signed with Seychelles to mark the friendship and goodwill between the two countries in 2018.
  - There is a huge Indian diaspora (around 11% of Seychelles Population) which plays a dominant role in promoting goodwill on both sides.

### **Challenges and Way Ahead**

- **Increasing Chinese Influence**
  - China is trying to change the geopolitics in the Indian Ocean by String of Pearls.
  - Hence, the geostrategic importance of Seychelles's location has become even more.
- **More Areas of Cooperation and need for Strengthened Efforts**
  - A strengthen shared efforts of both the countries is required in areas like
    - Drug trafficking,
    - IUU (Illegal, unreported and unregulated) fishing, piracy and
    - Climate change while protecting the ocean ecosystem.

Source: [PIB](#)



# Disaster Management

## **Landslide and Flood Early Warning System**

Syllabus: GS 3/Disaster Management

### In News

- Recently, the Council of Scientific And Industrial Research National Geophysical Research Institute (CSIRNGRI) has launched an '**Environmental Seismology**' group to develop a '**Landslide and Flood Early Warning System**' for the Himalayan region.

### Relevancy

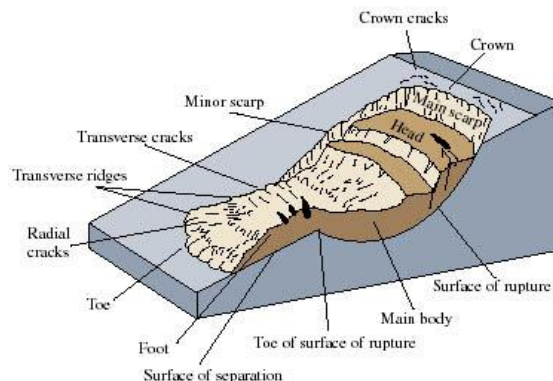
- Its need was necessitated following the **flash floods at Chamoli district in February** when a steep glacier on the **Nandadevi peak in Garhwal Himalaya** got detached.
- It caused a major avalanche and inducing flash floods in the **Rishi Ganga and Alaknanda rivers in Chamoli (Uttarakhand)**. It killed several persons downstream and caused damage to two power plants.

### About 'Landslide and Flood Early Warning System'

- It is based on **real-time monitoring** with dense seismological networks, coupled with satellite data, numerical modelling and geomorphic analysis.
- This would **enable a crucial warning several hours prior**, which will save human lives and property.

### What are Landslides?

- Landslides are more **widespread than any other geological** event and can occur anywhere in the world.
- They occur when large masses of soil, rocks or debris move down a slope due to a natural phenomenon or human activity.
- Mudslides or debris flows** are also a common type of fast-moving landslide.
- Landslides can accompany heavy rains or follow droughts, earthquakes or volcanic eruptions.



- Areas most vulnerable to landslides include:
  - steep terrain, including areas at the bottom of canyons;
  - land previously burned by wildfires;
  - land that has been modified due to human activity, such as deforestation or construction;
  - channels along a stream or river;
  - any area where surface runoff is directed or land is heavily saturated.
- **Which part of India is landslide-prone?**
  - The entire Himalayan tract, hills/ mountains in sub-Himalayan terrains of North-east India, Western Ghats, the Nilgiris in Tamil Nadu Konkan areas are landslide-prone.
- **Impact:**
  - Landslides can cause **high mortality and injuries** from rapidly flowing water and debris. The most common cause of death in a landslide is trauma or suffocation by entrapment.
  - **Broken power, water, gas or sewage pipes** can also result in injury or illness in the population affected, such as water-borne diseases, electrocution or lacerations from falling debris.
  - People affected by landslides can also have short- and long-term mental health effects **due to loss of family, property, livestock or crops**.
  - Landslides can also greatly impact the **health system and essential services**, such as water, electricity or communication lines.
- **Steps:**
  - The Geological Survey of India (GSI) has taken initiatives in the field of landslide risk reduction and management through landslide susceptibility mapping in various scales in different parts of the country including the **North-Eastern Region (NER) and Sikkim**.
  - GSI in its landslide studies included Pre-disaster studies (multi-scale landslide susceptibility/hazard/risk mapping & conducting landslide awareness programme); and Post-disaster studies (landslide inventory mapping and site-specific detailed geological mapping, slope stability analysis and landslide monitoring).

### **Flood and its Types**

- It is a temporary inundation of **large regions as a result of an increase** in the reservoir, or of rivers flooding their banks because of heavy rains, high winds, cyclones, storm surge along the coast, tsunami, melting snow or dam bursts.



- **Flash Floods:** It is defined as floods that occur within six hours of the beginning of heavy rainfall. In the case of flash floods, warnings for timely evacuation may not always be possible.
- **River Floods:** They are caused by precipitation over large catchment's areas. These floods normally build up slowly or seasonally and may continue for days or weeks as compared to flash floods.
- **Coastal Floods:** They are associated with cyclonic activities like Hurricanes, tropical cyclones etc.
- **Steps:**
  - A Flood Management Programme (FMP) was launched during XI Plan for providing **assistance to States** for works related to flood management and erosion control.
  - **Various training programmes** are run by the National Water Academy, Pune which serves the objective of the National Flood Management Institute recommended by NDMA.
  - Central Water Commission (CWC) has initiated actions for expansion and modernisation of its flood forecasting network.
    - CWC has provided necessary technical guidance to States for the preparation of **Emergency Action Plans (EAPs)** by concerned dam owners.
    - CWC had prepared a model bill on Flood Plain Zoning way back in 1975. The legislation has been enacted by three States namely, Manipur, Rajasthan and Uttarakhand.
  - Flood data is being collected in a systematic manner through the hydrological and flood forecasting network of the Central Water Commission.
  - A Water Resources System (WRIS) has been launched where such digitised data is available.

**Source: TH**

## India and Foreign Relations

### **CPEC Expansion to Afghanistan**

**Syllabus: GS2/Effect of Policies & Politics of Developed & Developing Countries on India's Interests**

#### In News

- Recently, Pakistan has discussed Taliban-led Afghanistan joining the multibillion-dollar **China-Pakistan Economic Corridor (CPEC)** infrastructure project.

#### About the issue

- **China has proposed the** construction of the Peshawar-Kabul motorway as an extension of **CPEC in Afghanistan**.
- Taliban takeover of Afghanistan and China emerging as a major challenge in the form of the extension of its ambitious CPEC has raised India's concerns on economic, political and security fronts.

#### China-Pakistan Economic Corridor (CPEC)

- It is a part of China's ambitious **One Belt One Road (OBOR) Initiative to link China with Europe**.
  - **Started in 2013**, the CPEC is a developmental project between Pakistan and its all-weather friend China.
  - CPEC is a **46 billion dollar project** connecting **Kashgar in Xinjiang province of China, with Gwadar port in Balochistan** which is the largest province in Pakistan.
  - It is connected through a vast and complex network of roads as well as other infrastructure projects such as dams, hydropower projects, railways, and pipelines.
- **Pakistan's interest in CPEC:**
    - The Chinese investments are supposed to **boost Pakistan's 274 billion dollar GDP by over 15 per cent**.
    - **Energy needs of Pakistan:** The large scale energy production has been termed as the biggest breakthrough of the project. Hydropower projects in this initiative can **double Pakistan's energy capacity**.
    - **Infrastructure development & Employment Opportunities:**
  - **China's interest in CPEC:**
    - **Access to the Middle East and Europe:** By shortening its route by about 12,000 km which is critical for energy imports.

- **Gwadar Port** provides a link between Maritime Silk Road and the Arabian Sea.
- Gwadar will have the estimated capacity to handle 19 million tonnes of crude oil per year, which will be sent to China after being refined at the port.
  - At present, China transports 80% of its oil through the Strait of Malacca.
- China also has huge strategic and geopolitical advantages in the Indian Ocean region.



Image Courtesy: [Tribune](#)

### India's Concerns on Afghanistan joining CPEC

- **Chabahar Port:** The primary concern with Afghanistan joining CPEC is that India is apprehensive of its investment in Chabahar port in Iran.
- **China's influence:**
  - In Afghanistan, China is trying to fill the vacuum created after the US forces left Afghanistan economically and get its Belt and Road (BRI) initiatives going.
  - With the Extension of CPEC, China will play a leading role in Afghanistan overpowering India's economic influence in Afghanistan.
  - India is apprehensive of undermining the India-Iran-Afghanistan trilateral that gives Afghanistan access to the sea via Chabahar port.
- **Weakening of India's Economic Influence:** Attempts to extend CPEC to Afghanistan may undermine India's position as an economic, security and strategic partner of Afghanistan.
- **US\$2 billion at stake:** India has been the **biggest regional donor** to Afghanistan investing more than **US\$2 billion** for developmental work like construction of roads, power plants, dams, parliament building, rural development, education, infrastructure and much more.

- **Rare-earth metals:** which are key components for a variety of advanced electronic technologies and hi-tech missile guidance systems will be exploited by China with the extension of CPEC.
- **Terrorism and Strategic Concerns:** Given India's limited strategic depth in Afghanistan, China is in a better position to leverage its strategic advantages in Afghanistan.
  - It will also help Pakistan gain the strategic advantage and upper hand in Afghanistan at the cost of India.
  - Pakistan can facilitate the use of terrorism against India.
- **Control of Strategic Air Base and ports:**
  - China may try to take over the **Bagram air force base in Afghanistan.**
  - The Bagram airport is the biggest airport and technically well-equipped as the Americans kept it for their use till the end, instead of the Kabul airport.
  - China has a history of building military bases on the ports and air bases acquired on foreign lands in lieu of loans provided.

### Way Forward & Conclusion

- **Improved infrastructure and security situation in Afghanistan** may help India to conduct its economic and trade activities in a secured environment.
  - But, to achieve that, it is necessary to make the region terrorism free.
- It will be a big strategic gain for China and Pakistan and a loss for India if Afghanistan joins the CPEC.
- It can also result in a boost to terrorist organizations and provide a safe haven to such organisations.

Source: [TH](#)

## Biodiversity & Environment

### **Madrid Protocol on Environmental Protection to the Antarctic Treaty**

Syllabus: GS3/ Environmental Pollution and Degradation

#### In News

- Recently, the Union Minister of India addressed the International Conference commemorating the signing of the **Madrid Protocol on Environmental Protection to the Antarctic Treaty.**

## About

- India has completed 30 years of adoption of signing and implementation of the **Madrid Protocol**, which reaffirms its commitment to preserving Antarctic environmental and dependent ecosystems.
- India is committed to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems, and the designation of Antarctica as a natural reserve devoted to peace and science.

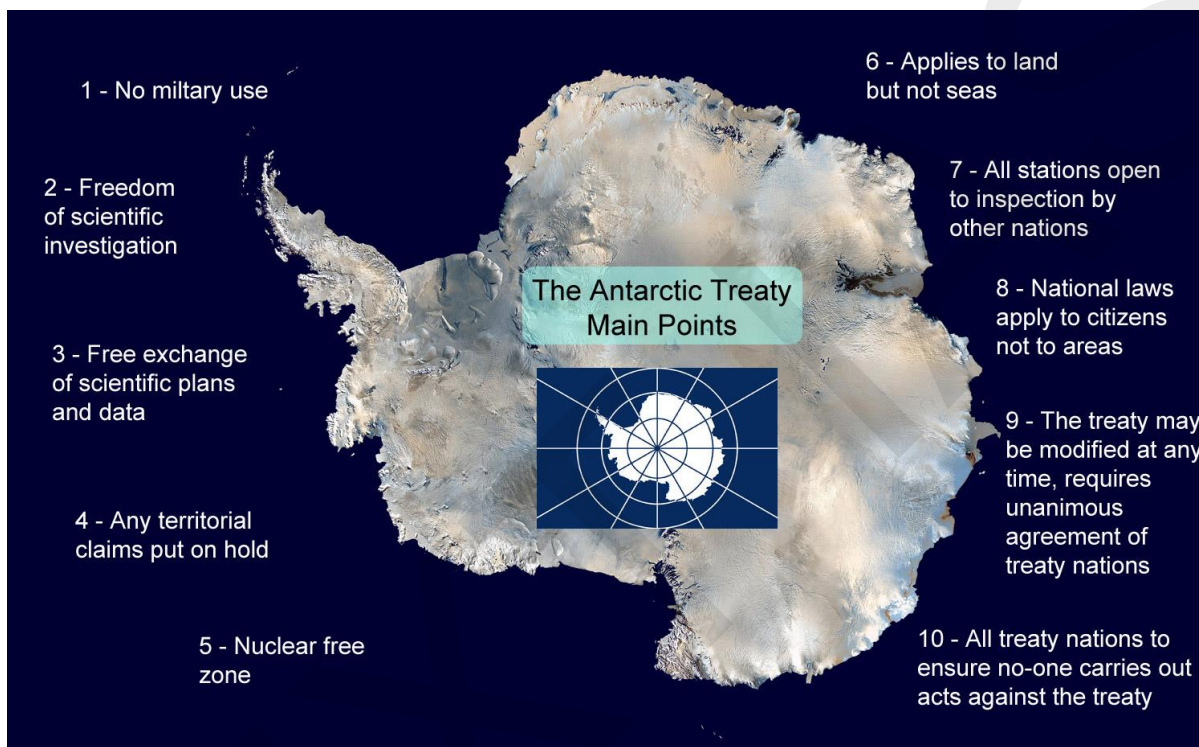


Image Courtesy: [Antarctic Treaty](#)

## India's take

- India under the Prime Minister is committed in **curtailing carbon emissions** in the Antarctic atmosphere.
- India has already adopted the **green energy initiative** by experimenting with the feasibility of wind energy production and installed moderate output of Wind Energy Generators (WEG) on an experimental basis.
- The choice of **Combined Heat and Power (CHP) for Bharati station** to reduce carbon emissions in the Antarctic also promotes India's pledge to protect the environment.
- India is looking forward to contributing to the evolving **Climate Change Response Work Programme of the Committee for Environmental Protection (CEP)**.



- India also anticipates tourism growth and **Illegal Unreported and Unregulated (IUU)** fishing as potential issues.
- India reaffirms its commitment to the **Protocol on Environmental Protection to the Antarctic Treaty** and at this moment claims to:
  - Implement all Decisions, Resolutions and Measures adopted at ATCM in the Indian Antarctic programme effectively.
  - Use a **green alternative energy system** in both the Indian Antarctic research stations; Maitri and Bharati like solar panels and wind energy generators so compromising use of fossil fuel gradually and make stations efficient with alternate green energy.
  - **Reduce carbon footprints** by using vehicles and machinery only when required at the most
  - Use shared supply ship to deliver human resources, materials and machines to Antarctica
  - Control the introduction of **non-native species into Antarctica** by any means or through vector transfer.



Image Courtesy: [Treaty](#)



## Antarctic Treaty

- **Signed:**
  - The Antarctic Treaty was signed in **Washington** on **1 December 1959** by the twelve countries whose scientists had been active in and around Antarctica during the International Geophysical Year (IGY) of 1957-58.
- **Some important provisions of the Treaty:**
  - **Art. I:** Antarctica shall be used for peaceful purposes only
  - **Art. II:** Freedom of scientific investigation in Antarctica and cooperation toward that end shall continue
  - **Art. III:** Scientific observations and results from Antarctica shall be exchanged and made freely available
  - **Art. IV:** No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.
  - **Art. VII:** To promote the objectives and ensure the observance of the provisions of the Treaty, "All areas of Antarctica, including all stations, installations and equipment within those areas ... shall be open at all times to inspection "
- **Signatories:**
  - Among the signatories of the Treaty were seven countries - Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom - with territorial claims, sometimes overlapping.
  - Other countries do not recognize any claims.
  - The US and Russia maintain a "basis of claim".
- **Members:**
  - Currently, it has 54 parties. India became a member of this treaty in 1983.
- **Headquarters:**
  - Buenos Aires, Argentina.
- **Present:**
  - Recently, the **60th anniversary** of the Antarctic Treaty was celebrated.
  - The Antarctic treaty remains the only example of a single treaty that governs a whole continent.
  - It is also the foundation of a rules-based international order for a continent without a permanent population.

- **India:**

- India signed the Antarctic Treaty on 19th August 1983 and soon thereafter received consultative status on 12th September 1983.
- The **Madrid Protocol** was signed by India which came into force on 14th January 1998.
- India is one of the **29 Consultative Parties** to the Antarctic Treaty.
- India is also a member of the Council of Managers of the National Antarctic Programme (COMNAP) and the Scientific Committee of Antarctica Research (SCAR).
- All these representations show the significant position that India holds among the nations involved in Antarctic research.
- India has **two active research stations**:
  - Maitri (commissioned in 1989) at Schirmacher Hills, and
  - Bharati (commissioned in 2012) at Larsemann Hills in Antarctica.
- India has successfully launched 40 annual scientific expeditions to Antarctica till date.
- With Himadri station in Ny-Alesund, Svalbard, Arctic, India now belongs to the elite group of nations that have multiple research stations within the Polar Regions.

- **Protocol on Environmental Protection to the Antarctic Treaty:**

- The Protocol on Environmental Protection to the Antarctic Treaty was signed in Madrid on October 4, 1991 and entered into force in 1998. It designates Antarctica as a “natural reserve, devoted to peace and science”.
- The Environmental Protocol is best known for its ban on commercial mining in Antarctica.
  - It would require a consensus of all Parties to change the mining ban.
- To mark its 25th anniversary in 2016, all Parties underlined their commitment to the mining ban at the Antarctic Treaty Consultative Meeting in May 2016;
- The Protocol sets a framework for the comprehensive protection of the Antarctic environment – ensuring that all activities in Antarctica are pre-planned and conducted so as to limit their environmental impacts.

### Way Forward

- All of the treaty signatories, but especially those with significant stakes in the continent, need to give the future of the treaty more attention.

Source: [PIB](#)

## Biodiversity and Environment

### **Proposed Changes to Forest Conservation Act**

**Syllabus: GS 3/Environmental Impact Assessment/Biodiversity and Environment**

#### In News

- The Union Ministry of Environment, Forest and Climate Change has proposed several amendments to the **Forest (Conservation) Act, 1980 (FCA)**, which may enable infrastructure projects to come up in the forest areas more easily.

#### About

- The government has proposed absolving agencies involved in national security projects and border infrastructure projects from **obtaining prior forest clearance** from the Centre as part of amendments to the **existing Forest Conservation Act (FCA)**.
  - The FCA that **first came in 1980** and was amended in 1988, requires such permission.

#### Forest (Conservation) Act, 1980

- The FCA is the **principal legislation** that regulates **deforestation in the country**.
- It prohibits **the felling of forests for any “non-forestry”** use without prior clearance by the **central government**.
- The clearance process includes seeking consent from **local forest rights-holders and from wildlife authorities**.
- The Centre is empowered to **reject such requests or allow them with legally binding conditions**.
- In a landmark decision in 1996, the Supreme Court had expanded the coverage of FCA to all areas that **satisfied the dictionary definition** of a forest; earlier, only lands specifically notified as forests were protected by the enforcement of the FCA.
- The FCA is brief legislation with only five sections.
  - Section 1 defines the extent of coverage of the law, Section 2 restricts activities in forest areas, and the rest deals with the creation of advisory committees, powers of rule-making and penalties.

#### Key Features of the proposal

- The proposed amendments seek to make additions and changes to Sections 1 and 2 of the Act.

- **New section 1A:** In the proposed new section 1A, a provision has been added to exempt the application of FCA on forest land that is “used for underground **exploration and production of oil** and natural gas through Extended Reach Drilling (ERD) originating outside forest land.”
  - The exemption is subject to **terms and conditions laid down** by the central government.
- **A new explanation added to Section 2:** It states that “survey, reconnaissance, prospecting, exploration or investigation” for future activity in the forest will not be **classified as a “non-forestry activity”**.
  - This means such survey works would not require any prior permission from the government.
  - The only exception is if the activity falls within a wildlife sanctuary, national park or tiger reserve.
- **Exemption:** Land acquired by the railways for establishing a rail line or a road by a government agency before 25.10.1980 (the day the FCA was passed) would be **exempted from seeking a forest clearance** – if they put the land to the same use for which it was acquired.
  - It proposes to exempt plantation of native species of palm and oil-bearing trees from the definition of “non-forest purpose”.
- **Removal of Clause: Section 2(iii) of the FCA** requires the central government’s approval before assigning forest lands on lease to any private person/corporation/organisation not owned or controlled by the central government.
  - This clause, however, has purportedly been deleted in the proposed amendment which means state governments can issue leases for the use of forest land without the Centre’s prior approval.
- **Limiting the coverage of the Supreme Court’s decision in Godavarman:**
  - The Supreme Court in **T.N. Godavarman Thirumulkpad v. Union Of India & Ors. (Godavarman)** on December 12, 1996, had held that the meaning of “forest” under the FCA would include not only statutorily recognised forests; it would include any area recorded as forest in government records, regardless of ownership.
    - The restrictions in the FCA would, therefore, be applicable to both de jure and de facto forests.
  - The proposed amendment purportedly seeks to reduce the scope of this judgment by limiting the applicability of the FCA to only such land that has been:

- Declared or notified as forest under the Indian Forest Act, 1927
- Recorded as forest land in the government record prior to 25 October 1980, with the exception of such land if its use has been changed from forest to non-forest purpose prior to 12 December 1996
- Identified as “forest” by a state government expert committee up to one year from the date of the amendment.
- **Punishment:** The Environment Ministry proposes adding a clause to make punishments under the modified Act punishable with simple imprisonment for a period which may extend to one year and make it cognisable and non-bailable.
  - They also propose provisions for penal compensation to make good for the damages already done to trees in forest land.

Source: [TH](#)

## Facts In News

### Biodiversity & Environment

#### **Species in News: Peafowl**

Syllabus: GS3/ Species in News

#### In News

- In an incident, a man was hit by a peafowl (*pavocristatus*) while driving a bike, which has turned the spotlight on the increasing population of peafowls in the Kerala state.

#### Peafowl Species

- **About:**
  - The term "peacock" is commonly used to refer to birds of both sexes. Technically, only males are peacocks. **Females are peahens**, and together, they are called **peafowl**.
  - **Peafowl (*Pavo cristatus*)** belongs to the **Phasianidae family**. They are among the largest of all birds that fly.
    - Phasianidae is the **pheasant family**, a bird family that includes among its members the jungle fowl (from which the domestic chicken is descended), partridge, peacock, pheasant, and quail.
  - The growing population of peafowls **signals climate change**. They are known to grow and thrive in dry conditions.

- **Types:**

- There are two familiar peacock species. The **blue peacock** lives in **India and Sri Lanka**, while the **green peacock** is found in **Java and Myanmar (Burma)**. A more distinct and little-known species, the **Congo peacock**, inhabits **African rainforests**.
- The Indian peafowl is the **national bird of India** and has a protected status in that country.
- The species are currently habituated **more in central Kerala**, followed by southeast and northwest parts of the state. At least 19 per cent of the states' area is suitable habitat for this species; this may increase by 40-50 per cent by 2050.

## PEAFOWL OF THE WORLD



- **Protection Status:**

- They are protected under **Schedule I** of the **Indian Wildlife Act, 1972**.
- **IUCN:** Indian peafowl (Least Concern)
  - Green peacock (Endangered)
  - Congo peafowl (Vulnerable)

- **Threats:**

- Habitat loss, smuggling, hunting and predation.

- **Concerns:**

- Peafowls are a threat to paddy farmers in Kerala; they destroy its seeds and cause man-animal conflict.

Source: [DTE](#)



## Polity and Governance

### North-Eastern Council

Syllabus :GS 2/Ministries & Departments/Government Policies & Interventions

#### In News

- Recently, the Vice President of India advised the **North-Eastern Council** to propel the [NE region](#) on a resurgent phase of accelerated development by quickly resolving issues that have been impeding its progress.

#### About North Eastern Council (NEC)

- It is the nodal agency for the **economic and social development** of the North Eastern Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- It was constituted in **1971 by an Act of Parliament**.
- **NEC members:** the Governors and the Chief Ministers of the 8 states including Sikkim, Chairman and 3 members who are nominated by the country's President.
- **Functions:**
  - To discuss any matter in which some or all of the States represented in the Council have a common interest and advise the Central Government and the Governments of the States concerned as to the action to be taken on any such matter, particularly with regard to:
    - any matter of common interest in the field of economic and social planning.
    - any matter concerning inter-State Transport and Communications.
    - any matter relating to Power or Flood-control projects of common interest.

Source: [PIB](#)

## Polity and Governance

### One District One Product (ODOP) Scheme

Syllabus: GS 2/Government Policies & Interventions

#### In News

- Recently, the Uttar Pradesh government named actor Kangana Ranaut as the brand ambassador of its ambitious '**one district-one product**' programme.

#### About

- One District One Product (ODOP) is an initiative that is seen as a transformational step forward towards realizing the true potential of a district, **fueling economic growth and generating employment and rural entrepreneurship**.
- ODOP initiative is operationally merged with the '**Districts as Export Hub**' initiative being implemented by DGFT, Department of Commerce, with the Department for Promotion of Industry and Internal Trade (DPIIT) as a major stakeholder.
- The Department of Commerce through DGFT is engaging with State and Central Government agencies to promote the initiative of One District One Product.
- **Objectives:**
  - To convert each District of the country into an **Export Hub** by identifying **products with export potential** in the District.
  - To address bottlenecks for exporting these products, supporting local exporters/manufacturers to scale up manufacturing.
  - To find **potential buyers outside India** with the aim of promoting exports, promoting the manufacturing & services industry in the District and generating employment in the District.

Source: [IE](#)

## Science & Technology

### Nobel Prize for Medicine

Syllabus: GS 3/Developments, Applications & Effects on Everyday Life

#### In News

- Recently, the **Nobel Prize in Physiology or Medicine 2021** was awarded jointly to David Julius and Ardem Patapoutian "for their discoveries of receptors for temperature and touch."

Why were they awarded?

**NOBEL PRIZE**

### Unlocking mysteries of senses

U.S. scientists **David Julius** and **Ardem Patapoutian** win Nobel Prize for medicine for discoveries on receptors in the skin that respond to heat and pressure

■ Their discoveries have unlocked one of the secrets of nature by explaining the molecular basis for sensing heat, cold and mechanical force, which is fundamental to our ability to feel, interpret and interact with our internal and external environment

■ **David Julius, 65,** was recognised for his research using capsaicin — a compound from chilli peppers that induces a burning sensation — to identify which nerve sensors in the skin respond to heat

■ **Ardem Patapoutian, 54,** is credited for finding the cellular mechanism and the underlying gene that translates a mechanical force on our skin into an electric nerve signal.

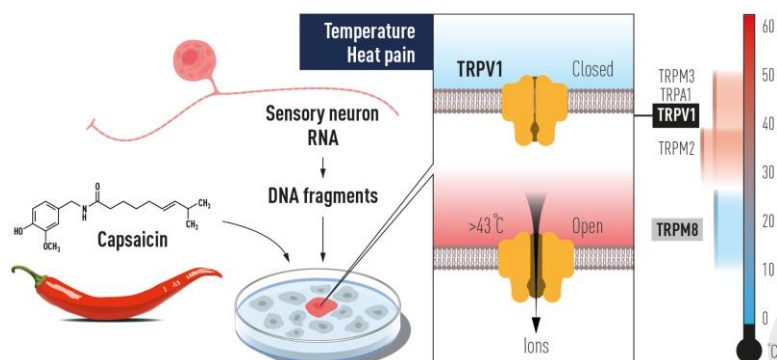
■ **Uses:** Their work is focused on the field of somatosensation, which explores the ability of organs such as eyes, ears and skin to see, hear and feel

■ The duo's research, conducted independently of each other in the late 1990s and 2000s, is being used to develop treatments for a wide range of diseases and conditions, including chronic pain

In our daily lives we take these sensations for granted, but how are nerve impulses initiated so that temperature and pressure can be perceived?... This question has been solved by this year's Nobel winners | NOBEL COMMITTEE

Image Courtesy: TH

- Julius discovered **TRPV1, a heat-sensing receptor**, while Patapoutian discovered two **mechanosensitive ion channels** known as the **Piezo channels**.
  - In 1997, Dr Julius and his team published a paper in Nature detailing how capsaicin, or the chemical compound in chilli peppers, causes the burning sensation.
  - They created a library of **DNA fragments to understand the corresponding genes** and finally discovered a new **capsaicin receptor** and named it **TRPV1**. This discovery paved the way for the **identification of many other temperature-sensing receptors**.



- Both David Julius and Ardem Patapoutian identified another new receptor called **TRPM8**, a receptor that is activated by cold.
  - A paper published in Cell in 2002 by Dr. Patapoutian and team explains that this new **receptor is specifically expressed in a subset of pain-and-temperature-sensing neurons**.
  - Ardem Patapoutian further studied if these receptors can be activated by mechanical stimuli.
  - His team poked cells with a micropipette and identified a cell line that produced an electric signal in response.
  - They identified a **single gene**, which when silenced made the cells insensitive to the poking.
    - They named this new mechanosensitive ion channel Piezo1.

### Significance:

- This knowledge [of the TRPV1, TRPM8 and Piezo channels] is being used to develop treatments for a wide range of disease conditions, including chronic pain.

### Nobel Prize

- On 27 November 1895, Alfred Nobel signed his last will and testament, giving the largest share of his fortune to a series of prizes in **physics, chemistry, physiology or medicine, literature and peace** – the Nobel Prizes.
  - In 1968, Sveriges Riksbank (Sweden's central bank) established The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.
- It was first awarded in 1901.
- It is an **international award administered** by the Nobel Foundation in Stockholm, Sweden, and based on the fortune of Alfred Nobel, a Swedish inventor and entrepreneur.

Source: [DTE](#)

## Biodiversity & Environment

### World Animal Day

Syllabus: GS3/Conservation

#### In News

- The **Animal Welfare Board of India (AWBI)** celebrated World Animal Day 2021 on 4th October

#### About World Animal Day 2021

- **Aim:**
  - To raise awareness about the importance of animals in the ecosystem and improve their welfare standards.
  - To address the plight of animals, both wild and domestic, and initiate better efforts towards their protection and conservation.
- **History:**
  - The particular date (4 October) was chosen in **honour of Francis of Assisi**, the patron saint of animals.
  - The **very first World Animal Day was commemorated on March 24, 1925**, by Heinrich Zimmermann, at the Sports Palace in Berlin, Germany.
  - Since 2003, it is the UK-based Animal welfare charity, Naturewatch Foundation that supervises the international celebration.
- **Theme:**
  - “**Forests and Livelihoods: Sustaining People and Plant**”

#### Animal Welfare Board of India (AWBI)

- It is a **statutory body** and advisory body for the Government of India, advising on animal welfare laws, and promotes animal welfare in the country of India.
- It was established in 1962 under Section 4 of the **Prevention of Cruelty to Animals Act, 1960**.
- The Board consists of 28 members, who serve for a period of 3 years.
- It works to ensure that animal welfare laws in the country are followed and provides grants to Animal Welfare Organisations.
- **HQ** in Ballabgarh in **Faridabad District of Haryana**.

Source: [PIB](#)

## Welfare and Scheme

### **Jal Jeevan Mission Mobile**

Syllabus: GS3/Government Policies and Interventions

#### In News

- Recently, the Prime Minister launched the Jal Jeevan Mission (JJM) mobile application on the **occasion of Gandhi Jayanti (2nd October)**.
  - The app would **enable anyone to fund the provision of tap water in rural parts of India**.

#### Jal Jeevan Mission

- **About:**
  - JJM envisages a supply of 55 litres of water per person per day to every rural household through **Functional Household Tap Connections (FHTC) by 2024**.
  - It is under the **Ministry of Jal Shakti**.
  - It was **launched in 2019**.
- **Aims:**
  - The mission **ensures the functionality of existing water supply systems and water connections; water quality monitoring and testing as well as sustainable agriculture**.
  - It also ensures **conjunctive use of conserved water; drinking water source augmentation, drinking water supply system, greywater treatment and its reuse**.
- **Funding Pattern:**
  - The fund sharing pattern between the **Centre and states is 90:10** for Himalayan and **North-Eastern States**, **50:50** for other states, and **100% for Union Territories**.



### **It also encompasses**

- Prioritizing provision of FHTCs in quality affected areas, villages in drought-prone and desert areas, Sansad Adarsh Gram Yojana (SAGY) villages, etc.
- Providing functional tap connection to Schools, Anganwadi centres, Gram Panchayat buildings, Health centres, wellness centres and community buildings.
- Technological interventions for removal of contaminants where water quality is an issue.

### **Implementation**

- The Mission is based on a community approach to water and includes extensive Information, Education and Communication as a key component of the mission.
- JJM looks to create a Jan Andolan for water, thereby making it everyone's priority.

### **Performance of the scheme**

- As of date, tap water supply has been provided in 772,000 (76 per cent) schools and 748,000 (67.5 per cent) Anganwadi centres.

Source: [HT](#)

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