

GOVERNANCE**Nurturing Neighbourhoods Challenge: Smart Cities Mission**

The Ministry of Housing and Urban Affairs has announced the names of the 25 cities selected for the Nurturing Neighbourhoods Challenge under the Smart Cities Mission.

Key Points**About the Challenge:**

Launch: November 2020.

Features:

- It is a 3-year initiative that aims to work with Indian cities and their partners to pilot and scale ways to improve public space, mobility, neighborhood planning, access to early childhood services and amenities, and data management across city agencies.
- It aims to propagate an early childhood centric approach among Indian cities.
- Partner Organisations:
- Ministry of Housing and Urban Affairs, Bernard van Leer Foundation (BvLF) and World Resources Institute (WRI) India.

Support to Selected Cities:

- Selected cities based on their proposal, readiness, and commitment - will receive technical support and capacity-building to develop, pilot and scale solutions that enhance the quality of life of young children.

Significance:

- Sensitivity Towards Children: Urban design and city planning play a crucial role in shaping the early years (0- 5 years) of a child's life – the period most vital for a child's long-term health and development.
- In Line with the ITCN Framework of the Smart Cities Mission: ITCN refers to the Infant, Toddler, Caregiver-Friendly Neighbourhoods framework. It has the following five objectives pertaining to neighbourhoods - Safe, Playful, Accessible, Inclusive and Green.
- Promotes Inclusive Development: It promotes inclusive development as it aims to enhance opportunities in urban areas for all vulnerable citizens, especially young children.

Smart City Mission

About: It is an innovative initiative under the Ministry of Housing and Urban Affairs, to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens.

Objective: To promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of Smart Solutions.

Focus: On sustainable and inclusive development and to look at compact areas, create a replicable model which will act like a lighthouse to other aspiring cities.

Strategy:

Pan-city initiative in which at least one Smart Solution is applied city-wide.

Develop areas step-by-step with the help of following three models:

- Retrofitting.
- Redevelopment.
- Greenfield.

Coverage and Duration: The Mission covered 100 cities for the duration of five years starting from the financial year (FY) 2015-16 to 2019-20.

Financing: It is a Centrally Sponsored Scheme.

SOCIAL ISSUE**Autism Spectrum Disorder**

Recently, a 12-year-old Maharashtra girl with Autism Spectrum Disorder (ASD) successfully swam across the Arabian Sea from Bandra-Worli Sea Link to Gateway of India in Mumbai.

Key Points**About:**

- ASD refers to a range of conditions characterised by some degree of impaired social behaviour, communication and language, and a narrow range of interests and activities that are both unique to the individual and carried out repetitively.
- It is a complex brain development disability which makes itself visible during the first 3 years of a person's life.
- It is not mental retardation as people with autism may show excellent skills in spheres like art, music, writing etc. The level of intellectual functioning in individuals with ASDs is extremely variable, extending from profound impairment to superior levels.

Causes:

- There are probably many factors that make a child more likely to have an ASD, including environmental and genetic factors.

Signs and Symptoms:

Difficulty with social communication and interaction, restricted interests, and repetitive behaviors.

Cure:

- Although autism is not curable, its symptoms can be addressed with appropriate interventions like evidence-based psychosocial interventions, behavioural treatment and skills training programmes for parents and other caregivers, health promotion, care, rehabilitation services, etc.

Global & National Initiatives to Raise Awareness on ASD:

- United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), Sustainable Development Goals deal with rights of people with disabilities including autism.
- The Right of Persons with Disabilities Act, 2016 increased the types of disabilities from 7 to 21. It also added autism spectrum disorder among others, which were largely ignored in earlier Act.
- In 2014, the World Health Organisation (WHO) adopted a resolution entitled "Comprehensive and coordinated efforts for the management of autism spectrum disorders (ASD)," which was supported by more than 60 countries.
- In 2008, the United Nations General Assembly unanimously declared 2nd April as World Autism Awareness Day.

INTERNATIONAL RELATION**Transatlantic Alliance**

The USA President Joe Biden in his first address to the annual Munich Security Conference declared that the 'transatlantic alliance is back' and stressed the need to defend democracy around the world.

The USA President intended to improve the strained relationship between the USA and other European allies.

The Munich Security Conference is an annual conference on international security policy that has taken place in Munich, Bavaria (Germany) since 1963.

Key Points

- The Transatlantic Alliance has been the cornerstone of the post-World War II world order.
- It is a real-world expression of West - of a sense that both sides of Atlantic are in it together.
- It is the foundation on which the collective security and shared prosperity of the USA and Europe are built.
- However, this historic, long-established friendship between the world's two largest economies has become strained in recent years.

Transatlantic Trade and Investment Partnership (T-TIP):

- T-TIP is an ambitious, comprehensive, and high-standard trade and investment agreement being negotiated between the United States and the European Union (EU).
- The TTIP negotiations were launched in 2013 and ended without conclusion at the end of 2016.
- T-TIP will be a cutting edge agreement aimed at providing greater compatibility and transparency in trade and investment regulation, while maintaining high levels of health, safety, and environmental protection.

Reason for Strained Relations:

- The Donald Trump (former) administration flaunted its foreign policy through an "America First" lens.
- The former American president not only attacked the North Atlantic Treaty Organization (NATO) - the fundamental structure of transatlantic alliance but also withdrew from virtually all multinational agreements recently championed by the European Union (EU), such as the Iran nuclear deal and the Paris climate agreement.
- The USA and the EU appear to be at odds with each other currently regarding their China interests, particularly on the economic and trade front.

Significance of the Latest Declaration:**A boost to multilateralism.**

- Concerned with maintaining its global strategic primacy, the USA was once equivocal about European defence and strategic autonomy. But as power has shifted eastward, subsequent USA governments have been keen to devote as much attention, money, and military muscle as possible to the Indo-Pacific.
- The Alliance can lead to development of an EU-USA carbon border adjustment mechanism, and can help in averting most catastrophic impacts of climate change.

- On Iran, Europeans can anticipate renewed negotiations on a revamped nuclear deal aimed at de-escalating tensions across the region.
- Germany's Merkel spoke about the need of a transatlantic policy towards Russia.

North Atlantic Treaty Organization

- Establishment: North Atlantic Treaty Organization (NATO) was established by the North Atlantic Treaty (also called the Washington Treaty) of 4th April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
- NATO provides a unique transatlantic link for political and security cooperation.
- Headquarters: Brussels, Belgium.

Functioning:

- NATO is a political and military alliance whose primary goals are the collective defence of its members and the maintenance of a democratic peace in the North Atlantic area.
- NATO has an integrated military command structure but very few forces or assets are exclusively its own.
- Most forces remain under full national command and control until member countries agree to undertake NATO-related tasks.
- All 30 allies have an equal say, the Alliance's decisions must be unanimous and consensual, and its members must respect the basic values that underpin the Alliance, namely democracy, individual liberty and the rule of law.

Members: As of 2020, there are 30 member states, with North Macedonia (2020) becoming the latest member to join the Alliance.

Member Countries: Albania, Belgium, Bulgaria, Canada, Croatia, the Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Turkey, the United Kingdom, Montenegro, North Macedonia and the United States..

NATIONAL DEVELOPMENTS**Roads on Arunachal Border**

The Union government approved more than Rs 1,100 crore for critical infrastructure development in Arunachal Pradesh.

- The Cabinet Committee on Security (CCS) also cleared a proposal for construction of 32 roads under phase II of the Indo-China Border Roads (ICBR) scheme.
- Earlier, the government followed a restrictive policy and areas along the China border were not developed much.

Key Points**Critical Infrastructure Development in Arunachal Pradesh:**

- Most projects have been earmarked in areas along the China border in the north and northeast part of Arunachal.
- It includes motorable roads, mule tracks and facilities for porters. It envisages construction of roads and 18 foot-tracks measuring 598 km.
- This will enhance the capabilities of Indo-Tibetan Border Police (ITBP), which maintains vigil along the border. These tracks can be used by the Army to supplement the main border roads for transportation of men and material.

Indo-China Border Roads Scheme:

- The first phase was initiated in 2005, when it was decided that the Ministry of Home Affairs (MHA) would construct 27 priority roads totalling 608 km along China areas at an estimated cost of Rs. 912 crore and other 14 roads will be built by agencies such as the Border Roads Organisation (BRO).
- Some of the important projects include the Darbuk-Shayok-Daulat Beg Oldie (DS-DBO) road and Rohtang tunnel in the Ladakh; and in the northeast, the Sela Tunnel and a road and rail tunnel under the Brahmaputra river with Indian Railways.
- Under phase II of the Indo-China Border Roads (ICBR) scheme, the roads, measuring 638.12 km and amounting to Rs. 12,434.90 crore, are to come up in Ladakh, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh.

Importance of Roads near Arunachal Border:

- Arunachal shares its longest border with China, followed by Myanmar and Bhutan.
- Further, China claims the entire Arunachal Pradesh as South Tibet.
- Lack of proper communication and other basic facilities in the border areas not only affects the local population but also is a major cause of concern from the country's security point of view.

- Insurgency in the north-east, smuggling and illegal migration are factors that demand more restricted border security.
- Encroachment: China has made rapid strides in border areas of Arunachal by setting up new villages and a labyrinth of road network, including highways.

Other Related Steps:

- India will spend 10% funds of the Border Area Development Programme (BADP) only to improve the infrastructure along the China border.
- The Border Roads Organisation (BRO) has constructed the Daporijo bridge over Subansiri river in Arunachal Pradesh.
- It links roads leading upto the Line of Actual Control (LAC) between India and China.
- The Defence Minister has virtually laid the foundation of a tunnel at Nechipu in West Kameng district of Arunachal Pradesh.
- The state government of Arunachal Pradesh has advocated selection of 10 census towns along the India-China border as pilot projects for infrastructure development in order to stop people living along its international borders, specifically with China, from migrating to faraway urban centres in the State.
- The Sisseri River Bridge is located at lower Dibang Valley in Arunachal Pradesh, connecting Dibang Valley and Siang.
- In 2019, the Indian Air Force inaugurated resurfaced runway at India's easternmost Village-Vijaynagar (Changlang district) in Arunachal Pradesh.
- In 2019, the Indian Army conducted exercise 'HimVijay' in Arunachal Pradesh and Assam with its newly created Integrated Battle Groups (IBG).
- Bogibeel bridge, which is India's longest road-rail bridge connecting Dibrugarh in Assam to Pasighat in Arunachal Pradesh was inaugurated in 2018.

BIODIVERSITY AND ENVIRONMENT

Sambhar Lake: Rajasthan

The State Government of Rajasthan will identify new tourist points at Sambhar Salt Lake.

The Lake forms part of the desert circuit in the Centre's Swadesh Darshan Scheme. The Scheme was launched by the Ministry of Tourism in 2014 -15 for integrated development of theme based tourist circuits in the country.

Key Points

Location:

Situated about 80 km southwest of Jaipur, in east-central Rajasthan.

Features:

Salt Lake: It is the largest inland salt lake in India. It represents the depression of the Aravalli Range.

The lake's salt supply was worked by the Mughal dynasty (1526-1857) and it was later owned jointly by the Jaipur and Jodhpur princely states.

Ramsar Site: It is a wetland of 'international importance' under the Ramsar Convention, declared in 1990.

Size and Depth:

- The area occupied by this lake differs from season to season, so roughly it is between 190 and 230 sq km.
- Also, being an extensive saline wetland, the depth of the lake also fluctuates from season to season. During peak summers (dry time), the depth measures as low as 60 cm but during the monsoons, it goes up to 3 m.

Rivers: It receives water from six rivers, namely Samaod, Khari, Mantha, Khandela, Medtha, and Roopangarh.

Vegetation: The vegetation present in the catchment area is mostly xerophytic type.

Xerophyte is a plant adapted for growth under dry conditions.

Fauna: Flamingoes, pelicans and the waterfowls are commonly sighted at the Sambhar Lake.

In 2019, almost 22,000 migratory birds died at the Lake due to avian botulism, a neuromuscular illness.

Before 2020's winter season, the Rajasthan government decided to build temporary shelters for migratory birds near the Lake.

Production of Salt: It is known for the production of brine/salt and also houses one of the largest salt manufacturing units in the country.

Other Nearby Places: Shakambari Devi temple, Sambhar Wildlife Sanctuary.

Rajasthan Government's Latest Plan:

- New tourist points for witnessing the flora and fauna and having a glimpse of salt harvesting will be identified at Lake.
- A "salt train", which transported salt from the pans to a nearby refinery, will also be restarted.

- New destinations around the lake, including salt museum, caravan park, bicycle track and gardens, will be finalised.
- The illegal salt production in the lake will be stopped through action against unauthorised borewells and pipelines laid in the region, while encroachments on the land will be removed with the help of police.

IMPORTANT FACTS FOR PRELIM**Epilepsy**

Recently, a major drugmaker has developed the Active Pharmaceutical Ingredient (API) and the finished dosage formulation of Brivanext, a drug for epilepsy.

Key Points**Epilepsy:**

- Epilepsy is a central nervous system (neurological) disorder in which brain activity becomes abnormal, causing seizures or periods of unusual behavior, sensations, and sometimes loss of awareness.
- Epilepsy is the fourth most common neurological disorder and affects people of all ages.
- Anyone can develop epilepsy, but it's more common in young children and older adults. It occurs slightly more in males than in females.

Symptoms:

- Alterations to sense of taste, smell, sight, hearing, or touch, dizziness, tingling and twitching of limbs, Staring blankly, unresponsiveness, performing repetitive movements.
- It may or may not involve loss of awareness or consciousness.

Cure:

- There's no cure for epilepsy, but the disorder can be managed with medications and other strategies.
- Initiative to Raise Awareness: In 2019, a report Epilepsy, a public health imperative was released by the World Health Organization.
- It is the first global report on epilepsy summarizing the available evidence on the burden of epilepsy and the public health response required at global, regional and national levels.

Active Pharmaceutical Ingredients (APIs)

APIs, also called bulk drugs, are significant ingredients in the manufacture of drugs. The Hubei province of China is the hub of the API manufacturing industry.

India is heavily import-dependent for APIs from China. India's API imports stand at around \$3.5 billion per year, and around 70%, or \$2.5 billion, come from China.

DAILY ANSWER WRITING PRACTICE

Qns. How will the melting of Himalayan glaciers have a far-reaching impact on the water resources of India? (UPSC GS-1 Mains 2020)

Ans:

The Himalayas is referred to as the Third Pole. Being the major source of water for the rivers, these glaciers are the lifeline for one-third of the population across the globe.

However, the rapid melting of Himalayan glaciers has put enormous pressure on the weather resource of India.

Effect of Melting Himalayan Glaciers

- Frequent Flooding & Droughts: Himalayan glaciers provide for a vital regional lifeline to over two billion people through 10 main rivers that originate from the glaciers.
- Given that there are 8,790 glacial lakes in the region, rapid melting of glaciers could lead to floods from glacial lake outbursts. For example in Utrakhand flash floods in 2013 and 2021.
- Glacial melt could result in more streamflow due to high glacial melt but for a short time, after which the flow would start reducing and result in conditions of droughts.
- Impacting Monsoon: The Himalayas exerts a significant influence on seasonal shifts in the monsoon circulation and the distribution of rainfall over India.
- The south-west monsoon accounts for 70% of the annual rainfall in India.
- According to IPCC projections, the melting of glaciers could indicate a likely increase in summer rainfall by 4-12% in the near term and 4-25% in the long term.
- Changing monsoon patterns, including increased severity and frequency of storms, could lead to mountain hazards that may destroy critical infrastructure.
- Destabilize Flow of Indian Rivers: Increasing glacial melts could destabilize Indian rivers by changing their streamflow.
- The Indian rivers like Ganga and the Brahmaputra are partly fed by glacier melt and partly mainly monsoon-fed rivers

- With the impact on monsoon, this will hamper agriculture that accounts for the largest share of water usage.

Conclusion

According to a recent IPCC report the Himalayan glaciers are melting and receding at an alarming rate and if adequate steps are not taken to limit global warming, two-thirds of glaciers in the Hindu Kush Himalayas could melt by 2100.

DAILY QUIZ

1. Consider the following statements about the state of Arunachal Pradesh:

1. The state shares international borders with China and Myanmar only.
2. It was formed out of Assam with the 55th amendment to the Indian Constitution.
3. Gayal is the state animal of Arunachal Pradesh.

Which of the statements given above is/are not correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) **1 only**
- d) 1, 2 and 3

2. Consider the following pairs:

- | | Pass | Location/Link |
|----|----------------|-------------------|
| 1. | Nathu La | Sikkim |
| 2. | Rohtang Pass | Uttarakhand |
| 3. | Lipu Lekh Pass | Himachal Pradesh |
| 4. | Bom di La | Arunachal Pradesh |

Which of the above pairs are correctly matched?

- a) 1, 3 and 4 only
- b) **1 and 4 only**
- c) 3 and 4 only
- d) 1 and 3 only

3. Consider the following statements about Sambhar Lake:

1. It is the largest inland saltwater lake of India.
2. It is a wetland of international importance.
3. The lake receives water mainly from Ghaggar and Banas rivers.

Which of the statements given above is/are correct?

- a) **1 and 2 only**
- b) 2 only
- c) 3 only
- d) 1, 2 and 3

4. With reference to the Nurturing Neighborhoods Challenge, consider the following statements:

1. It focuses on shaping cities for young children and their families.
2. It is launched by the Ministry of Housing and Urban Affairs in association with the World Bank.

Which of the statements given above is/are correct?

- a) **1 only**
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

5. With reference to Indian Anti-tank Guided Missile, consider the following statements:

1. Helina and Dhruvastra are Anti-tank guided missiles for the Indian Airforce and Army respectively.
2. DRDO has developed anti guided NAG Missiles under the Project 75I.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) **Neither 1 nor 2**