INDIAN ECONOMY

Mobilisation Of Resources

Increased tax collections in Northeast India: GST adoption gave north-eastern states a big developmental push

The article discusses how the introduction of the Goods and Services Tax (GST) in India in 2017 has significantly helped the northeastern states by increasing their tax revenues. This boost in funds has allowed these states to improve infrastructure and participate more in national economic activities.

current status of tax collections in Northeast India

- Exceptional GST Revenue Growth: Since the GST was implemented in 2017-18, the northeastern states have experienced a compound annual GST revenue growth rate of 27.5% through to 2022-23, which is significantly higher than the pre-GST tax revenue growth rate of 9%.
- Substantial Increase in State Revenues: The northeastern states' total revenue contribution to the central exchequer now stands at around Rs.20,000 crore annually, with Rs.8,000 crore from GST and Rs.12,000 crore from central excise. This demonstrates a major increase in financial resources due to efficient tax collection and compliance under GST.
- Financial transfers from the central government to northeastern states have significantly increased. For example, Arunachal Pradesh received a 1,665% increase in tax devolution from 2014 to 2024. Other states like Mizoram, Manipur, Nagaland, and Sikkim also saw over a 500% rise in devolution, allowing them more budget for development.

Reasons for increased tax collections in Northeast India

- Consumption-Based Tax System: GST, levied at the point of consumption rather than production, benefited northeastern states which are primarily consumer states. This shift from the origin-based Central Sales Tax, which they hardly benefited from before, significantly increased their tax collections.
- Improved Tax Compliance: The GST system encourages better compliance through a tax-credit mechanism. This self-policing setup minimizes tax evasion, enhancing revenue collection.
- Use of Technology: States like Assam employed big-data software to identify tax discrepancies, which significantly improved collection efficiency, resulting in the recovery of about Rs.730 crore in tax settlements.
- Spillover Effects on Revenue Collection: The implementation of GST has refined the overall mechanism of revenue collection in states, helping to streamline various tax collection processes beyond just GST.
- Balancing Fiscal Imbalances: GST has played a crucial role in addressing the vertical fiscal imbalances between the northeastern states and the Central government, contributing to a more equitable financial structure across the country.
- Enhanced Participation in National Market: The adoption of GST has enabled northeastern states to more actively engage in the national market, opening up greater opportunities for trade and investment, which in turn boosts economic activity and development in the region.

GST and the associated compensation packages helped northeastern states manage economic challenges during the COVID-19 pandemic. This support prevented a collapse in revenue and enabled continued investment in development projects.

Way forward

With the increase in revenue and development funding, northeastern states are encouraged to further develop their infrastructure and explore new economic opportunities. This will help them fully utilize their potential and contribute more significantly to the national economy.

DISASTER MANAGEMENT

Heat Action Plans

This year heat alerts have already begun from February itself. Parts of northeastern and western India are already experiencing significantly warmer temperatures (3.1-5 degrees Celsius above normal) ahead of summer.

The IMD has also predicted an increase in the maximum temperature and the frequency of heatwave conditions in the upcoming days over eastern and southern India. This raises question about India's readiness to face heat wave effectively.

Plot-1441, Opp. IOCL Petrol Pump, CRP Square, Bhubaneswar-751015
Ph.: 8984111101, 8093083555. Web: www.vanikias.com, E-mail: vaniksias@gmail.com

Heat wave

Definition– Heat waves are prolonged periods of excessively hot weather that can cause adverse impacts on human health, the environment, and the economy.

Criteria for Declaring Heat Wave in India

Heat wave is considered if maximum temperature of a station reaches at least 40 degree C or more for plains and at least 30 degree C or more for hilly regions.

A) Based on Departure from Normal

Heat Wave: Departure from normal is 4.50 C to 6.40 C

Severe Heat Wave: Departure from normal is >6.40C

B) Based on Actual Maximum Temperature

Heat Wave: When actual maximum temperature ≥ 45 degree C

Severe Heat Wave: When actual maximum temperature ≥47degree C

If the above criteria are met in at least 2 stations in a Meteorological subdivision for at least two consecutive days, it is declared so on the second day.

For coastal areas – When maximum temperature departure is 4.5 degree C or more from normal, heat wave may be described provided actual maximum temperature is 37 degree C or more.

heat action plan

1) Aim– Its aim is to increase preparedness and lower the adverse impacts of extreme heat by outlining strategies and measures to prepare for, address, and recover from heatwaves.
2) Mapping Heat Risks-They give an overview of each region's heat conditions, showing past heatwaves, trends in summer temperatures, land surface temperature, and more. Then, they assess vulnerability to identify areas needing urgent attention and plan a response.
3) Collaborative Efforts-The National Disaster Management Authority and IMD are working with 23 States to develop HAPs. It outlines the roles and responsibilities of various line departments, such as the disaster management authority, labour department, and police.
4) Significance– In the wake of the rising severity and frequency of heatwaves nationwide, governments at different levels, state, district, and city have formulated heat action plans (HAPs).

recommendations of heat action plan

1) Recommendation for short term

A) Early warning– It recommends the use of forecasts and early warning systems to alert the public and relevant authorities about heatwaves.

B) Awareness- It suggests informing the public through awareness campaigns that share information about the risks linked with heatwaves.

C) Structural Measures-It recommends the building of heat shelters and cooling centres.

D) Guidelines to Hospitals: It asks hospitals to have enough supplies and trained healthcare workers to recognize and treat many patients with heat-related illnesses.

2) Recommendation for long term

A) Sustainable urbanization– It recommends using urban planning methods such as planting trees, using heat-resistant building materials, and employing cool roofing technologies. This helps in reducing the urban heat island effect and lowers the indoor temperatures.

B) Multi-stakeholder coordination– It pushes for effective coordination among different groups, like government agencies, healthcare providers, community organizations, and emergency services.

Challenges in the smooth implementation of Heat Action Plans

1) The local context- The existing Heat Action Plan does not take local conditions like the urban heat island effect, the type of roofing, and proximity to water or green bodies into consideration before formulating their strategies to combat heatwave.
2) Inconsistent methods– The methods adopted by various heat action plans to conduct vulnerability assessments are inconsistent.
3) Lack of recognition of various socio-economic differences– There is a lack of dedicated intervention which considers the different needs of people based on local social and demographic factors.
4) Resource Allocation-Implementation of HAPs differs a lot based on what local governments prioritize and the resources they have. That's why it's important to have dedicated budgets for implementing HAPs.
5) Working in silos-HAPs are individual plans with no integration with broader plans of urban resilience and climate adaptation. As a result, there's no pooling of resources for effective implementation.

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Way forward

1) Enhancing Heatwave Definition– There is a need to broaden the definition of heatwaves by also including humid heat, warmer nights, and extreme dry heat. This requires development of heat index that considers more than just temperature.
2) Comprehensive Climate Risk Assessment– There is a need to transition to a robust, full-fledged climate risk assessment that can identify the possibility of heatwaves in different areas and figure out how much people and important things may be affected by heatwaves. Further, geospatial data should be used for hotspot mapping that will help in prioritizing and formulating targeted interventions.
3) Collaborative Planning for Heatwave Protection –There is a need to hold dialogues between the state, civil society organizations, and worker unions to devise a financial mechanism that can allow informal workers to be indoors during a heatwave without losing their incomes.
4) Integration with broader plan– HAPs should be integrated with broader action plans that promote urban resilience and climate adaptation. This will enhance the effectiveness of HAP because of improved data collection and monitoring systems.
5) Nature-based solutions should be incorporated to tackle extreme heat in areas that are particularly affected to improve the effectiveness of HAPs.

PRELIM FACT

1.India's Arctic Expedition: Exploring New Frontiers

India recently concluded its first winter expedition to the Arctic in March 2024, marking a significant milestone in its Arctic exploration endeavours.

India's engagement in the Arctic:

1. India's engagement with the Arctic began when it signed the Svalbard Treatyin February 1920 in Paris between Norway, the US, Denmark, France, Italy, Japan, the Netherlands, Great Britain, and Ireland, and the British overseas Dominions and Sweden concerning Spitsbergen. Ever since then, India has been closely monitoring all the developments in the Arctic region.
2. India initiated its Arctic research program in 2007 with a focus on climate change in the region.
3. The objectives included studying teleconnections between the Arctic climate and the Indian monsoon, to characterize sea ice in the Arctic using satellite data, and to estimate the effect on global warming.
4. India has set up a research station Himadri at Ny-Ålesund, Svalbard, in 2008
5. In May 2013, India became an observer state of the Arctic Councilalong with five others including China.
6. India launched its inaugural multi-sensor moored observatoryand northernmost atmospheric laboratory in 2014 and 2016 respectively
7. Till last year, thirteen expeditions to the Arctic were successfully conducted.

Significance of the Arctic Region for India

- Though none of India's territory directly falls in the Arctic region, it is a crucial area as the Arctic influences atmospheric, oceanographic and biogeochemical cycles of the earth's ecosystem.
- Establishing research bases and observing Arctic ice systems and glaciers are crucial components of India's research on Monsoon
- The region holds vast unexplored hydrocarbon reserves and valuable minerals, contributing to India's resource needs.
- India aims to utilize Arctic Sea routes, particularly the Northern Sea Route, to facilitate Indian trade.
- India's connection dates back to the Svalbard Treaty in 1920, with ongoing scientific studies and Arctic Council participation.
- Global Influence By engaging in Arctic affairs, India can assert its global presence and contribute to discussions on climate change and resource management.
- China's investments in the Arctic and Russia's collaboration with China in granting access to the Northern Sea Route have raised concerns in India

Last Year, India released its Arctic Policy, with the aim of enhancing the country's cooperation with the resource-rich and rapidly transforming region.

2.FDI in the space sector

- The Ministry of Finance has notified Foreign Direct Investment (FDI) regulations in the space sector under the Foreign Exchange Management Rules, allowing Indian space start-ups to access global capital.

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- 74% FDI for satellite manufacturing, up to 49% for launch vehicles, and up to 100% for component and system manufacturing.
- Investment beyond 49% for spaceports requires government approval.
- A foreign direct investment is a substantial, lasting investment made by a company or government into a foreign concern.
- FDI investors typically take controlling positions in domestic firms or joint ventures and are actively involved in their management.

3.Sugar in baby food

- Nestlé's baby food products in Asia, Africa, and Latin America were found to contain added sugars, while those sold in Europe did not.
- Added sugars in baby food pose health risks, including obesity and non-communicable diseases like diabetes.
- Excessive sugar intake can lead to unhealthy diets and increase the risk of diseases later in life.
- WHO advises against introducing added sugars before the age of 2, emphasizing the importance of a diverse diet for babies.

4.GPS spoofing

- Israel reportedly used GPS jamming to confuse Iran's missile targeting teams ahead of Iran's direct attack on Israel.
- This technique, similar to what the US allegedly did during India's Kargil war in 1999, can hinder military operations by degrading GPS signals.
- The US initially employed "selective availability" to degrade GPS accuracy for India during the Kargil war, prompting India to develop its own navigation system called NavIC.
- In the recent incident, Israeli locals found their GPS showing them in Cairo or Beirut, causing confusion about throwing off Iran's missiles.

About GPS Spoofing:

- GPS spoofing, also known as GPS simulation, involves manipulating or tricking a GPS receiver by broadcasting false GPS signals.
- This leads the receiver to believe it is located somewhere it is not, resulting in inaccurate location data.
- This cyberattack undermines the reliability of GPS data, critical for navigation, time synchronization, and more.
- While initially a theoretical threat, GPS spoofing has become a practical concern due to affordable software and hardware capable of transmitting fake signals.
- This evolution poses risks and security challenges for industries, governments, and individuals.

5.'Sleeping giant' black hole

- Astronomers have discovered the most massive known stellar black hole nicknamed " Sleeping Giant" in the Milky Way galaxy, named Gaia BH3, located 1,926 light-years away in the Aquila constellation.
- Its mass is nearly 33 times that of the sun, making it the second-closest black hole on Earth.
- This discovery was made through observations from the Gaia space telescope, detecting a wobble in space caused by the gravitational influence of Gaia BH3 on its companion star.
- The study offers insights into the formation of such massive black holes and their connection to metal-poor stars.

6.Nigeria introduced Men5CV vaccine

- Nigeria has introduced the world's first vaccine against all strains of meningitis (Men5CV vaccine), aiming to alleviate the disease burden in Africa's meningitis belt.
- The Men5CV vaccine, approved by the WHO, safeguards against five strains of meningococcus bacteria in one shot, surpassing earlier vaccines. Its introduction coincides with WHO's aim to eradicate meningitis by 2030, vital amid rising cases in the region.

Meningitis

It is a severe infection affecting the brain and spinal cord's protective membranes. While various pathogens like bacteria, fungi, or viruses can cause it, bacterial meningitis poses the greatest global threat. Common bacteria responsible include Streptococcus pneumoniae, Haemophilus influenzae, and Neisseria meningitidis.

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ANSWER WRITTING

Q. Land degradation poses significant risks to India's developmental ambitions. In light of this, analyze the gaps in current land management framework and provide suggestions for appropriate corrective measures.

India faces significant challenges related to land degradation and desertification, which have critical implications for its developmental ambitions. An analysis of the current land management framework reveals several gaps, and addressing these issues requires a comprehensive approach integrating policy reforms, technological solutions, and community engagement.

Gaps in Current Land Management Framework

- **Inadequate Policy Implementation:** Despite the existence of policies aimed at land restoration and conservation, the enforcement and implementation of these policies are often lacking. There is a gap between policy formulation and its practical execution on the ground.
- **Limited Community Engagement:** Effective land management requires the active participation of local communities. However, there is often a lack of engagement with local stakeholders in the planning and execution of land management initiatives.
- **Inadequate Funding and Resources:** Land restoration and conservation projects often suffer from inadequate funding and resources. This limits the scope and effectiveness of such initiatives.
- **Lack of Integrated Approach:** Land degradation and desertification are multifaceted issues that require a holistic approach. However, current efforts often lack an integrated approach that considers the socio-economic and environmental dimensions of land degradation.
- **Data and Monitoring Gaps:** Accurate data and effective monitoring are crucial for informed decision-making and policy formulation. However, there is a gap in comprehensive and up-to-date data on land degradation and desertification in India.

Suggestions for Corrective Measures

- **Strengthen Policy Implementation:** Strengthening the enforcement mechanisms of existing land management policies is crucial. This includes providing adequate resources for implementation and establishing clear accountability mechanisms.
- **Enhance Community Participation:** Encouraging the participation of local communities in land management efforts can lead to more sustainable outcomes. This involves empowering communities with knowledge, resources, and decision-making authority.
- **Increase Funding and Resources:** Allocating adequate funding and resources for land restoration and conservation projects is essential. This could involve increasing public investment as well as exploring innovative financing mechanisms such as green bonds.
- **Adopt an Integrated Approach:** Adopting an integrated approach that considers the interlinkages between land degradation, climate change, and socio-economic development is essential. This involves coordinating across different sectors and levels of government.
- **Improve Data Collection and Monitoring:** Enhancing data collection and monitoring capabilities through the use of modern technologies such as remote sensing and GIS can provide accurate and timely information on land degradation and desertification.
- **Promote Sustainable Land Management Practices:** Encouraging the adoption of sustainable land management practices, such as agroforestry, conservation agriculture, and land reclamation, can help restore degraded lands and improve their productivity.
- **Raise Awareness and Capacity Building:** Raising awareness about the impacts of land degradation and desertification among policymakers, stakeholders, and the general public is crucial. Capacity-building initiatives can equip stakeholders with the necessary skills and knowledge to combat these issues effectively.

Addressing the gaps in India's current land management framework requires a concerted effort from the government, private sector, civil society, and local communities. By implementing these suggestions, India can mitigate the risks associated with land degradation and desertification, thereby supporting its developmental ambitions and ensuring the sustainable management of its land resources.

MCQs

1. Which of the following statements about rogue waves is true?
   (a) Rogue waves are always caused by underwater earthquakes.
   (b) Rogue waves are typically less than twice the height of surrounding waves.
   (c) Rogue waves are more likely to occur in shallow waters.
   (d) Rogue waves are unpredictable and can appear suddenly without warning.
2. Consider the following statements about the International Coral Reef Initiative (ICRI):

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1. It was established by the International Union for Conservation of Nature.
2. It aims to enhance the resilience of coral reefs to climate change and other environmental stressors.

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

3. Soil acidification is a process characterized by:
(a) Decrease in soil pH
(b) Increase in soil pH
(c) Increase in soil fertility
(d) Decrease in soil fertility

4. Which of the following statements about the Pink bollworm is true?
(a) It is a type of fungus that affects cotton plants.
(b) It is a beneficial insect that aids in pollination.
(c) It primarily feeds on the seeds and bolls of cotton plants.
(d) It is a marine organism found in oceans and seas.

5. Consider the following statements:
1. Space debris consists only of human-made objects.
2. Space debris is primarily found in the Earth's atmosphere.
3. Space debris poses no risk to operational satellites.
4. Space debris includes natural objects like meteoroids and asteroids.

How many of the above statements about space debris are correct?
(a) Only one
(b) Only three
(c) All four
(d) None

6. Consider the following statements:
1. According to the India Meteorological Department (IMD), the definition of a heatwave depends on the physiography of regions.
2. A heatwave's severity is determined by its departure from normal temperature.
3. Heat Action Plans (HAPs) are strategies designed to reduce the negative effects of heatwaves.

How many of the statements given above are correct?
(a) Only one
(b) Only two
(c) All three
(d) None

7. Which one of the following is NOT a key focus of the United Nations Conference on Trade and Development's (UNCTAD) work?
(a) Trade policy analysis and recommendations
(b) Promoting investment flows and technology transfer to developing countries
(c) Assisting developing countries in commodity trade negotiations
(d) Providing legal aid in international trade disputes

8. The 'Taiwan Strait' is a strategically important waterway due to:
(a) Abundant natural resources
(b) Heavy commercial shipping traffic
(c) Lack of significant military presence
(d) Presence of unique marine ecosystems

9. Consider the following statements regarding Transgender Persons (Protection of Rights) Act 2019:
1. The Act does not penalise Transgenders for begging, forced or bonded labour.
2. The Act does differentiate between transgenders, transsexuals, intersex persons and genderqueer.
3. Getting Transgender Certificate and Identity Cards as per their self-perceived identity is an important provision of The Transgender Persons (Protection of Rights) Act, 2019.

How many of the above statements are correct?
(a) Only one
(b) Only two
(c) All three
(d) None

10. Which of the following statements regarding Freedom of religion under Article 25 is/ are correct?
1. The rights under Article 25 of the Constitution cover only religious beliefs but not practices.
2. These rights are available to both the citizens of the country and to foreigners.
3. The States are given powers to enact local freedom of religion laws under the constitution.

Select the correct option using the code given below:
(a) 1 and 2 only
(b) 1 and 3 only
(c) 1,2 and 3
(d) 2 and 3 only

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