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# LESSONS FROM TAMIL NADU'S DEVELOPMENT MODEL AND CAPABILITY APPROACH TO DEVELOPMENT

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS "CAPABILITY APPROACH". THIS TOPIC IS RELEVANT IN THE "ECONOMY AND SOCIAL JUSTICE" SECTION OF GS3 IN THE UPSC CSE EXAM.

#### WHY IN THE NEWS?

As Tamil Nadu gears up for the upcoming national polls, a comprehensive examination of its economic, social, and environmental metrics reveals a story of holistic development over time. The state stands out among its peers, showcasing commendable progress across a spectrum of indicators.

Tamil Nadu's remarkable strides in child health, women's empowerment, and educational attainment position it among the leading states in these crucial areas. Simultaneously, the state's robust economic performance, buoyed by a thriving manufacturing sector, places it at the forefront of economic advancement among major states.

#### REASONS THAT CONTRIBUTED IN TAMIL NADU'S HOLISTIC DEVELOPMENT

**Diversified and decentralized Industrialization**: Tamil Nadu has emerged as one of the leading industrial states in India. The state government has implemented policies and initiatives to attract investment, particularly in sectors like automobile manufacturing, textiles, IT and software services, pharmaceuticals, and renewable energy. Cities like Chennai, Coimbatore, and Tirupur have become major industrial hubs, contributing significantly to the state's economic growth. Also, there is decentralization of industrial setup i.e. no only near the capital but across tamil nadu.

- 1. **Infrastructure Development**: The state has focused on developing robust infrastructure, including roads, ports, airports, and power infrastructure. The Chennai Port and the upcoming Ennore Port have enhanced the state's connectivity and facilitated trade. The Chennai Metro Rail project and various highway projects have improved transportation within the state, further boosting economic activities.
- 2. **Education and Human Capital**: Tamil Nadu has a strong focus on education, with a high literacy rate and numerous educational institutions offering quality education. Chennai, in particular, is known for its engineering colleges and research institutions. A skilled workforce is instrumental in attracting investments and fostering innovation in various sectors.
- 3. **Information Technology (IT) and Services**: Tamil Nadu has emerged as a major IT and software services hub, with Chennai being dubbed as the "Detroit of India" for its thriving automobile industry and "Silicon Valley of India" for its IT sector. The state government has

- provided support for the growth of IT parks and Special Economic Zones (SEZs), attracting both domestic and international IT companies.
- 4. **Social Welfare Schemes**: The state government has implemented various social welfare schemes aimed at poverty alleviation, healthcare, education, and women's empowerment. Initiatives such as the Public Distribution System (PDS), Amma Unavagam (subsidized canteens), Amma Two-Wheeler Scheme and proper implementation of mid- day meal scheme have improved the quality of life for many residents.
- 5. **Tourism**: Tamil Nadu boasts a rich cultural heritage and natural beauty, attracting tourists from across the globe. Historical monuments such as the Brihadeeswarar Temple in Thanjavur and Meenakshi Temple in Madurai, along with picturesque hill stations like Ooty and Kodaikanal, contribute to the state's tourism sector, generating revenue and employment.

# 6. Women empowerment:

- Tamil Nadu has made significant strides in women empowerment through various initiatives.
  The state government has implemented schemes like the Women's Self-Help Group (SHG)
  program, providing financial assistance and skill development opportunities to women.
  Additionally, policies promoting women's education, healthcare, and political participation have been prioritized.
- Tamil Nadu has also taken steps to combat gender-based violence, with the establishment of special courts and helplines. These efforts have resulted in increased economic independence, improved health outcomes, and greater representation of women in decision-making roles, fostering a more inclusive and equitable society.
- AS per a data, female labor force participation rates in Tamil nadu is among the highest in the country.

#### **CAPABILITY APPROACH**

Amartya Sen's Capability Approach is a philosophical and economic framework that focuses on the individual's freedom to achieve well-being. Sen argues that **traditional measures of well-being, such as income or GDP per capita, fail to capture the true quality of life experienced by individuals**. Instead, he proposes **assessing well-being in terms of people's capabilities** – their ability to choose and achieve valuable functioning that they have reason to value.

Central to Sen's Capability Approach is the concept of "capabilities," which refers to the various opportunities and freedoms available to individuals to lead lives they have reason to value. These capabilities encompass a range of factors, including access to education, healthcare, political participation, employment opportunities, social inclusion, and freedom from exploitation and violence.

Unlike traditional approaches that focus solely on income or material wealth, Sen emphasizes the importance of considering people's actual ability to function in society and achieve their goals. For example, while two individuals may have the same level of income, their capabilities to lead fulfilling lives may differ significantly due to factors such as access to education, healthcare, and social support networks.

The Capability Approach underscores the significance of addressing inequalities and enhancing opportunities for all individuals to develop their capabilities fully. It emphasizes the role of social policies and interventions in promoting human development and well-being, with a focus on enhancing people's freedom to choose and pursue their life goals.

Sen's approach has been influential in shaping discussions around development, social justice, and public policy, advocating for a more holistic and human-centered approach to assessing and promoting well-being. By focusing on capabilities, Sen's framework highlights the intrinsic value of individual freedoms and the importance of creating enabling environments that empower people to live lives they value.

#### **PRELIMS QUESTION**

Question:

Which of the following best describes Amartya Sen's Capability Approach?

- A) A theory focused solely on economic growth and GDP per capita.
- B) An approach that emphasizes the importance of enhancing people's freedoms and opportunities.
- C) A political ideology advocating for authoritarian governance.
- D) A framework that prioritizes maximizing corporate profits.

Correct Answer: B) An approach that emphasizes the importance of enhancing people's freedoms and opportunities.

Explanation: Amartya Sen's Capability Approach is a philosophical and economic framework that prioritizes enhancing people's capabilities to lead lives they have reason to value. It emphasizes the importance of freedoms and opportunities beyond mere economic metrics, aiming for a more holistic understanding of human well-being.

**Ankit Kumar** 

# MONSOON SHOCKS

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "MONSOON SHOCKS". THIS TOPIC IS RELEVANT IN THE "GEOGRAPHY" SECTION OF THE UPSC CSE EXAM.

### Why in the News?

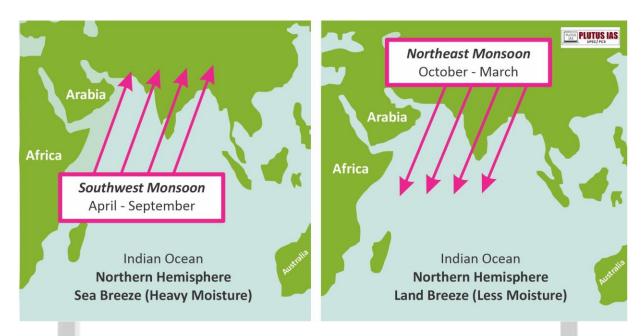
The India Meteorological Department (IMD) has predicted a generous monsoon season. It anticipates that the rainfall between June and September will surpass the usual 87 cm by around 6%. For the first time in ten years, the IMD has made an "above normal" rainfall forecast at the initial stage, almost 45 days prior to the onset of the four-month monsoon season.

#### MONSOON MECHANISM IN INDIA-

The term "Monsoon" originates from either the Arabic term Mausin or the Malayan term Monsin, both signifying "season." Monsoons represent periodic wind patterns that alter direction with the shift of seasons. These seasonal winds flow from the ocean to the land during summer and from the land to the ocean during winter.

India's climate, akin to South and Southeast Asia, experiences heat and humidity during the monsoon period. The monsoon encompasses two out of the four seasons observed on the Indian subcontinent, namely:

- 1. The Southwest Monsoon Season
- 2. The North-East Monsoon Season



# Factors affecting the Indian Monsoon-

The formation of the South-West monsoon, which is vital for India's agricultural and economic well-being, is influenced by a multitude of factors:

- 1. **Differential Heating:** The primary driving force behind the South-West monsoon is the differential heating of land and sea. During the summer months, the landmass of the Indian subcontinent heats up significantly, creating a low-pressure area. Meanwhile, the surrounding oceans retain relatively lower temperatures, resulting in a high-pressure zone. This stark contrast in pressure initiates the movement of air masses from the high-pressure zone over the ocean to the low-pressure zone over land.
- 2. **Inter-Tropical Convergence Zone (ITCZ):** The ITCZ, an area near the equator where the trade winds converge, plays a crucial role in monsoon formation. During the Northern Hemisphere summer, the ITCZ shifts northwards, bringing moisture-laden winds from the southern hemisphere to the Indian subcontinent. This convergence of winds intensifies rainfall over the region.
- 3. **Tropical Easterly Jet Stream:** The Tropical Easterly Jet Stream, located over the Indian subcontinent during the summer, also influences monsoon formation. It helps in the transportation of moisture-laden air from the Indian Ocean towards the Indian landmass, contributing to the monsoon's strength and duration.
- 4. **Himalayan and Western Ghats Barrier:** The presence of the Himalayan Mountain range and the Western Ghats acts as a barrier to the advancing monsoon winds. As the monsoon winds encounter these barriers, they are forced to ascend, leading to orographic rainfall. This phenomenon significantly enhances rainfall along the windward slopes of these mountain ranges.

- 5. **El Niño and La Niña:** The El Niño Southern Oscillation (ENSO) phenomenon in the Pacific Ocean has a significant impact on monsoon variability. El Niño events tend to suppress monsoon rainfall, leading to drought conditions, while La Niña events enhance monsoon rainfall, resulting in above-average precipitation.
- 6. **Indian Ocean Dipole (IOD):** The Indian Ocean Dipole, characterized by temperature anomalies in the Indian Ocean, also influences the monsoon. A positive IOD, with warmer waters in the western Indian Ocean, enhances monsoon rainfall, while a negative IOD, with cooler waters in the western Indian Ocean, suppresses rainfall.
- 7. **Land Surface Conditions:** Land surface conditions, such as soil moisture content and land cover, also play a role in modulating monsoon dynamics. Dry soil conditions can lead to enhanced heating and further intensify the monsoon, while extensive land cover, such as forests, can influence rainfall patterns through evapotranspiration.

# Relation between Climate Change and Monsoon in India-

Climate change can significantly impact the monsoon in India, which is a crucial component of the country's climate system. Here are some key ways in which climate change affect the Indian monsoon:

- 1. **Changes in Rainfall Patterns:** Climate change can alter the distribution, intensity, and frequency of rainfall associated with the monsoon. While some regions may experience increased precipitation and flooding, others may face reduced rainfall and droughts. These changes can have significant implications for agriculture, water resources, and ecosystems.
- 2. **Temperature Increase:** Rising global temperatures due to climate change can lead to increased evaporation rates and changes in atmospheric circulation patterns. This can affect the temperature contrast between land and sea, which is a key driver of the monsoon winds. Warmer temperatures may also lead to changes in the timing and duration of the monsoon season.
- 3. **Melting Glaciers:** Climate change is causing the accelerated melting of glaciers and snow in the Himalayas. This can influence the timing and volume of water flow into rivers that feed the monsoon system. Changes in glacier meltwater contributions can affect river flow patterns and ultimately impact the monsoon's intensity and variability.
- 4. **Ocean Warming:** Warming of the Indian Ocean and other oceanic regions can influence the moisture content and temperature of the air masses that contribute to the monsoon. Changes in sea surface temperatures can affect the onset, strength, and duration of the monsoon season.
- 5. **Extreme Weather Events:** Climate change is associated with an increase in the frequency and intensity of extreme weather events, such as heatwaves, storms, and cyclones. These events can disrupt monsoon patterns, leading to erratic rainfall, flash floods, and other weather-related hazards.
- 6. **Impact on Agriculture:** Changes in the monsoon can have significant impacts on agriculture, which is heavily dependent on seasonal rainfall patterns. Erratic or insufficient rainfall can lead to crop failures, food shortages, and economic losses, affecting millions of people who rely on agriculture for their livelihoods.

#### Socio-Economic Impacts of Monsoon in India-

The monsoon season in India has profound socio-economic impacts on various sectors of the economy and the livelihoods of millions of people. Some of the key socio-economic impacts of the monsoon in India include:

- 1. **Agriculture:** The monsoon is the lifeline of India's agriculture, as a significant portion of the country's cropland depends on rainfall for irrigation. Adequate monsoon rains are crucial for sowing and the growth of crops such as rice, wheat, sugarcane, and cotton. Erratic or deficient rainfall can lead to crop failures, reduced yields, and food shortages, impacting farmers' incomes and rural livelihoods.
- 2. **Water Resources:** The monsoon replenishes water bodies such as rivers, lakes, and reservoirs, which are essential for drinking water supply, irrigation, and hydropower generation. Adequate monsoon rainfall is critical for maintaining water availability for agriculture, industry, and domestic use. Conversely, droughts resulting from poor monsoon rainfall can lead to water scarcity, affecting both urban and rural communities.
- 3. **Food Security:** India's food security is closely linked to the performance of the monsoon. A successful monsoon season ensures adequate food production, stabilizes food prices, and reduces dependency on food imports. However, monsoon failures or inadequate rainfall can lead to food shortages, inflation, and increased vulnerability for vulnerable populations, particularly in rural areas.
- 4. **Livelihoods:** Millions of people in India are directly or indirectly dependent on agriculture for their livelihoods. The monsoon season significantly impacts employment opportunities, income levels, and overall economic well-being in rural areas. Crop failures and agricultural distress during drought years can lead to migration, indebtedness, and socio-economic challenges for farming communities.
- 5. **Infrastructure and Transportation:** Heavy monsoon rains often result in floods, landslides, and damage to infrastructure such as roads, bridges, and buildings. Flooding can disrupt transportation networks, hinder the movement of goods and people, and lead to loss of lives and property. Investments in resilient infrastructure and disaster management are essential to mitigate the impact of monsoon-related disasters.
- 6. **Health:** The monsoon season can also affect public health outcomes in India. Stagnant water and poor sanitation during the monsoon can lead to the spread of waterborne diseases such as cholera, dengue fever, and malaria. Adequate sanitation, access to clean water, and public health interventions are critical to minimizing the health risks associated with the monsoon.
- 7. **Hydro-electric Power Generation:** The monsoon rainfall plays a crucial role in replenishing dams and reservoirs across India. The stored water in dams and reservoirs serves as a reliable source for hydro-electric power generation. Hydroelectric power plants harness the energy of flowing or falling water to produce electricity. During the monsoon season, the increased water levels in reservoirs enable hydro-power plants to operate at maximum capacity, generating significant amounts of electricity.

In conclusion, the monsoon season in India is not merely a meteorological event but a cornerstone of the nation's socio-economic fabric. It sustains agriculture, replenishes water resources, and powers hydro-electricity generation. However, its variability and intensity also pose challenges, affecting food security, livelihoods, infrastructure, and public health. Addressing these challenges requires a multifaceted approach, including sustainable water management practices, climate-resilient agriculture, robust infrastructure development, and effective disaster preparedness. By understanding and mitigating the socio-economic impacts of the monsoon, India can enhance resilience and ensure the well-being of its population in the face of a changing climate.

#### **Prelims Based Question-**

#### Q1. How does La Niña affect the Indian monsoon?

(a). It suppresses monsoon rainfall, leading to drought conditions.

- (b). It enhances monsoon rainfall, resulting in above-average precipitation.
- (c). It has no significant impact on the Indian monsoon.
- (d). It causes erratic rainfall patterns, alternating between drought and floods.

**ANSWER: B** 

# **Mains Based Question-**

Q1. Assess the impact of various factors, such as El Niño, La Niña, and the Indian Ocean Dipole (IOD), on the variability of the Indian monsoon. How do these climate phenomena contribute to the unpredictability of monsoon rainfall patterns?

