

GOVERNANCE
Traffic Management Framework for Drones

Recently, the Ministry of Civil Aviation has notified a traffic management policy framework for drones. This could be regarded as the first step towards allowing Beyond Visual Line of Sight (BVLOS) drone operations.

Key Points

- **Traffic Management Framework:** The rules envisages private, third-party service providers for ensuring safe operations. Under the framework, Unmanned Traffic Management Service Providers (UTMSP) will extend automated, algorithm-driven software services instead of voice communication as in the traditional Air Traffic Management (ATM) systems.
- **Scope of Regulation:** All drones (except nano drones operating in the green zone) shall be required to share their real-time location through the network to the Centre. Law enforcement and security agencies will also have access to some information in the UTM ecosystem on a need-to-know basis.
- **Responsibility of UTMSP:** They will primarily be responsible for segregating and separating a drone from other drones and manned aircraft in the airspace below 1,000 feet in the country. The UTMSP will be assisted by Supplementary Service Providers (SSPs), who will maintain data about terrain, weather, location of manned aircraft and provide services such as insurance, data analytics and drone fleet management.
- **Approval Authority:** DigitalSky platform shall continue to be the interface for government stakeholders to provide approvals and permissions to drone operators. DigitalSky platform provides end-to-end governance of drones related activities in India.
- **Financial Provisions:** The policy also allows UTMSPs to levy a service fee on users, a small portion of which will also be shared with the Airports Authority of India.
- **Significance of the Rules:** India has started taking steps towards enabling advanced use cases like delivery of goods using unmanned aircraft and is also looking at human transportation using unmanned aircraft.

BIODIVERSITY & ENVIRONMENT
Climate Vulnerability Index

Recently, a report titled “Mapping India’s Climate Vulnerability – A District-level Assessment” has been released by the Council on Energy, Environment and Water (CEEW) (not-for-profit policy research institution).

- The report has also launched the first-of-its-kind Climate Vulnerability Index.
- The index has analysed 640 districts in India and found that 463 of these are vulnerable to extreme floods, droughts and cyclones.

Key Points

- **Affected States:** 27 Indian states and Union territories are vulnerable to extreme climate events which often disrupt the local economy and displace weaker communities. The states of Assam, Andhra Pradesh, Maharashtra, Karnataka and Bihar are the most vulnerable to extreme climate events such as floods, droughts and cyclones in India.
- **Magnitude of Impact of Climate Change:** More than 80% of Indians live in districts vulnerable to climate risks.
 1. 17 of 20 people in the country are vulnerable to climate risks, out of which every five Indians live in areas that are extremely vulnerable.
 2. More than 45% of these districts have undergone “unsustainable landscape and infrastructure changes”.
- **Low-level of Adaptability:** More than 60% of Indian districts have medium to low adaptive capacity in handling extreme weather events.
- **Role of Anthropogenic Activities:** The anthropogenic activity has already made vulnerable districts become even more vulnerable to impacts of natural disasters. Some of the activities has led to:
 1. Loss of wetlands and loss in mangroves which would act as a natural barrier, making it more vulnerable.
 2. Landscape disruptions such as the disappearance of forest cover, over-construction, have led to degradation of natural ecosystems.
- **Triggering Financial Crisis:** Combating the rising frequency and scale of extreme climate events is fiscally draining for developing countries such as India. Investments in infrastructure such as housing, transport, and industries will be threatened by these events, especially along the coasts, adding that mounting weather-related insurance losses could trigger the next financial crisis.

Suggestions

- **Decentralized Planning:** Since most districts in India are highly vulnerable to extreme weather events, a district-wise climate action plan is required.
 1. The CEEW study also indicated that only 63% of Indian districts have a District Disaster Management Plan (DDMP).
 2. Policymakers, industry leaders and citizens must use the district-level analysis to make effective risk-informed decisions.
- **Mobilizing Green Finance:** With loss and damage rising exponentially due to the climate crisis, India must demand climate finance for adaptation-based climate actions at COP-26 (Climate Conference).
 1. At COP-26, developed countries must regain trust by delivering the USD 100 billion promised since 2009 and commit to stepping up climate finance over the coming decade.
 2. Further, India must collaborate with other countries to create a Global Resilience Reserve Fund, which could act as insurance against climate shocks.
- **Climate Risk Identification:** Finally, developing a Climate Risk Atlas for India would help policymakers to better identify and assess risks arising from extreme climate events. Climate-proofing of physical and ecosystem infrastructures should also now become a national imperative.
- **Institutional Setup:** India must create a new Climate Risk Commission to coordinate the environmental de-risking mission. Enhanced climate finance can also support India-led global agencies like the Coalition for Disaster Resilient Infrastructure (CDRI) to further mainstream climate actions.

Other Indices Related to Climate Change

- Climate Change Performance Index (Germanwatch, the New Climate Institute and the Climate Action Network)
- Global Climate Risk Index 2021 (Germanwatch)
- Environmental Performance Index (Yale University and Columbia University in collaboration with the World Economic Forum).
- Hunger Hotspots Report (FAO and WFP)
- Children's Climate Risk Index (UNICEF)

GEOGRAPHY

Widespread Northeast Monsoon: IMD

According to the India Meteorological Department (IMD), the northeast monsoon, which makes up for most of Tamil Nadu's annual rainfall, has arrived.

- Normally, the northeast monsoon sets in around 20th October.
- The prolonged southwest monsoon has led to the delay in onset this year.

Key Points

About the Monsoon:

- Generally, across the world, the monsoons are experienced in the tropical area roughly between 20° N and 20° S.
- The climate of India is described as the 'monsoon' type.
- In Asia, this type of climate is found mainly in the south and the southeast.
- **Rainfall in India:**
 1. Southwest monsoon: About 75% of the country's annual rainfall is received from the Southwest monsoon between June and September.
 2. Northeast monsoon: It occurs during October to December.

NorthEast Monsoon (NEM):

- **Winter Monsoon:** It is a comparatively small-scale monsoon, which is confined to the Southern peninsula. It is called the winter monsoon.
- **Factors Behind Northeast Monsoon:**
 1. **Change in Wind pattern:** After the complete withdrawal of the Southwest monsoon from the country takes place by mid-October, the wind pattern rapidly changes from the south-westerly to the north-easterly direction.
 2. **Cyclonic Activities:** The period after the Southwest monsoon season, from October to December, is the peak time for cyclonic activity in the North Indian Ocean region covering the Arabian Sea and the Bay of Bengal. The winds associated with the formation of low pressure systems, depressions, or cyclones influence this monsoon, and therefore, the rainfall.

3. **Global Climate Parameters:** The NEM rainfall is influenced by global climate parameters such as ENSO (El Nino/La Nina & Southern Oscillation Index - SOI), Indian Ocean Dipole (IOD) and Madden-Julian Oscillation (MJO).
 - ✓ El Nino, positive IOD and MJO in phase 2-4 with amplitude greater than one are generally associated with good NEM rainfall.
 - ✓ Also, La Nina & positive SOI during the second half of the season is also favourable for good NEM activity.
- **Regions Associated:**
 1. Tamil Nadu, Puducherry, Karaikal, Yanam, coastal Andhra Pradesh, Kerala, north interior Karnataka, Mahe and Lakshadweep.
 2. Tamil Nadu records about 48% of its annual rainfall during these months, making it the key factor for undertaking agricultural activities and reservoir management in the state.

INTERNATIONAL RELATION

6th Annual Meet: AIIB

Recently, the Union Minister of Finance participated in the 6th Annual Meeting of the Board of Governors of Asian Infrastructure Investment Bank (AIIB).

Key Points

India's Stand:

- **Help in Covid:** Appreciated AIIB's prompt actions in providing financial support to Member Countries, including India, in their efforts to contain and combat Covid-19.
- **Multilateral Banking:** Emphasised the importance of multilateral banks in supplementing countries' efforts to cope with the Covid-19 crisis and the looming climate crisis.
- **Expectations from the Bank:** Need to explore investment opportunities in the creation and development of assets in social infrastructure sectors. To further intensify private sector capital mobilisation for inclusive and green development. To set up a Resident Board and Regional Offices to ensure accountability, transparency and quality of operations and investments.

AIIB's Stand:

- **Suggestion for India:** It should strike a balance between ramping up physical infrastructure and the social infrastructure such as healthcare systems.
- **Future Endeavours in India:** It would look to fund both social as well as climate-resilient infrastructure in India in the coming years. It will align its operations with the goals of the Paris Agreement to cope with climate change.

India and AIIB

- India was among the AIIB's 57 founding members in 2016.
- It is also its second-largest shareholder (with 7.62% voting shares) after China (26.06%).
- It has received USD 4.35 billion from the Bank. This is the highest of any country, with the bank so far approving loans of USD 19.6 billion to support 87 projects in 24 countries. Turkey is second with USD 1.95 billion.
- AIIB has approved financing projects in India in a host of sectors like energy, transport and water including the Bangalore metro rail project (USD 335 million), Gujarat rural roads project (USD 329 million) and Phase 3 of the Mumbai urban transport project (USD 500 million). India needed to develop modern infrastructure and when the Bank screened proposals, it worked with the government to ensure that priority was given to infrastructure projects which could deal with climate change.
- In a recent virtual meeting, India said that it expects AIIB to introduce new financing instruments, provide financing for social infrastructure and to integrate development of climate resilient and sustainable energy access infrastructure into AIIB's recovery response to the Covid-19 crisis. This implies that India is unlikely to alter its engagement with the China-led Asian Infrastructure Investment Bank (AIIB), despite a host of offensive measures announced recently to reduce its trade and investment links with China.

Asian Infrastructure Investment Bank

- It is a multilateral development bank with a mission to improve social and economic outcomes in Asia.
- It meets clients' needs by unlocking new capital and investing in infrastructure that is green, technology-enabled and promotes regional connectivity.
- It is established by the AIIB Articles of Agreement (entered into force December 2015) which is a multilateral treaty.

1. The Parties (57 founding members) to agreement comprise the Membership of the Bank.
2. AIIB's membership has grown to 102 countries now.
- It is headquartered in Beijing and began its operations in January 2016.

IMPORTANT FACTS FOR PRELIM**Mahatma Gandhi National Fellowship: Phase II**

Recently, the government has launched the phase-II of Mahatma Gandhi National Fellowship under SANKALP (Skill Acquisition and Knowledge Awareness for Livelihood Promotion) programme.

SANKALP

- SANKALP, a Centrally sponsored scheme, is a World Bank loan assisted program, launched by the Ministry of Skill Development and Entrepreneurship in January 2018.
- SANKALP engages with District Skill Committees (DSCs) to effectively reduce the mismatch between the supply and demand of skilled manpower in the country, thereby creating decent opportunities for the youth to work and earn.

Key Points**About:**

- It is a two-year long fellowship programme conceived to create opportunities for young, dynamic individuals to contribute to enhancing skill development at the grassroots.
- 1. **MGNF Phase-I (Pilot):** Launched in 2019 with IIM Bangalore as Academic Partner and 69 are Fellows currently deployed in 69 districts across 6 States.
- 2. **MGNF Phase-II (National Roll Out):** Being launched in October 2021 with 661 MGNFs who will be deployed across all districts of the country. 8 more IIMs have been boarded taking the total to 9 IIMs.
- It seeks to combine classroom sessions by academic partner IIMs with an intensive field immersion at the district level to create credible plans and identify barriers in raising employment, economic output, and promote livelihoods in rural areas.
- The sharp focus on developing skills for local needs gives impetus to the "vocal for local", and also building an industry-relevant skill base will help the cause of "Atmanirbhar Bharat".

Eligibility:

- Fellows have to be in the 21-30 years age-group, have a graduation degree from a recognized university and be citizens of India.
- Proficiency in official language of the state of fieldwork will be mandatory.

Other Schemes for Skill Development

1. Pradhan Mantri Kaushal Vikas Yojana (PMKVY).
2. Recognition of Prior Learning
3. National Career Service Project
4. Skill Management and Accreditation of Training Centres (SMART)
5. Skills Strengthening for Industrial Value Enhancement (STRIVE)
6. Pradhan Mantri YUVA Yojana (Yuva Udyamita Vikas Abhiyan)
7. Kaushal Acharya Awards.
8. Scheme for Higher Education Youth in Apprenticeship and Skills (SHREYAS).
9. Atmanirbhar Skilled Employee Employer Mapping (ASEEM).

2.ADB Grants Loan for Mizoram

Recently, the Indian government and the Asian Development Bank (ADB) signed a USD 4.5 million Project Readiness Financing (PRF) loan to support urban mobility in Mizoram.

- Earlier, the ADB and the Government of India signed a USD 484 million loan to improve transport connectivity and industrial development in the Chennai - Kanyakumari Industrial Corridor (CKIC) in Tamil Nadu.
- PRF supports high implementation readiness for projects that are expected to be financed by ADB.

Key Points**About:**

- Urban mobility in Aizawl, the center of Mizoram's administrative and service industry, is severely constrained due to rapid and unplanned urbanization. This results in traffic congestion on narrow road widths, and adversely impacts road safety, efficiency in movement of people and goods, and environmental sustainability.
- The ensuing project, being developed through the project readiness financing, seeks to resolve the city's transport problems by adopting sustainable urban mobility solutions.

- It will help develop institutional capacity of the state's Urban Development and Poverty Alleviation Department in pre-implementation and project preparation activities.
- The PRF will develop a Comprehensive Mobility Plan (CMP) for Aizawl that outlines the urban transport development strategy and build synergies with urban development planning initiatives in the state, and promote climate and disaster resilience, and gender inclusiveness in its interventions. CMP will facilitate an optimised use of capital in relevant projects, and enhance the economic competitiveness of cities by improving logistics and access to jobs, basic services, education, etc.

Asian Development Bank:

- It is a regional development bank established on 19th December 1966. It is headquartered in Manila, Philippines.
- It now has 68 members, 49 from within Asia. India is one of the members.
- It's five largest shareholders are Japan and the United States (each with 15.6% of total shares), the People's Republic of China (6.4%), India (6.3%), and Australia (5.8%).
- It aims to promote social and economic development in Asia and the Pacific.
- Asian Development Outlook (ADO) is a series of annual economic reports on the Developing Member Countries (DMCs) of the Asian Development Bank (ADB).

DAILY ANSWER WRITING PRACTICE

Qns. Despite being a major agrarian economy, India ranks at 101 out of 116 in the Global Hunger Index. Discuss the cause of such poor performance of India on the Global Hunger Index. (250 words)

Ans:

Introduction

The Global Hunger Index launched recently ranked India at 101 position out of a total 116 countries. India is also among the 31 countries where hunger has been identified as serious. India ranked 94 among 107 countries in the Global Hunger Index (GHI) released last year. India is currently behind its neighbours Pakistan, Bangladesh and Nepal.

Body:

India's performance:

- India is among the 31 countries where hunger has been identified as serious.
- Only 15 countries fare worse than India.
- Some of these include Afghanistan (103), Nigeria (103), Congo (105), Mozambique (106), Sierra Leone (106), Timor-Leste (108), Haiti (109), Liberia (110), Madagascar (111) and Somalia (116).
- India was also behind most of the neighbouring countries.
- Pakistan was placed at 92 rank, Nepal at 76 and Bangladesh also at 76.

The main cause for such high levels of child stunting and wasting in India:

- Poor maternal health: South Asian babies show very high levels of wasting very early in their lives, within the first six months. This reflects the poor state of maternal health.
- Mothers are too young, too short, too thin and too undernourished themselves, before they get pregnant, during pregnancy, and then after giving birth, during breast-feeding.
- Poor sanitation is another major cause of child wasting and stunting.
- Poverty: Almost 50 million households in India are dependent on these small and marginal holdings.
- Livelihood loss: The rural livelihoods loss after COVID and lack of income opportunities other than the farm sector have contributed heavily to the growing joblessness in rural areas.

Measures needed:

- Governments, private actors, and NGOs should carefully coordinate their responses to overlapping food and health crises and work with community organizations to make sure interventions are culturally acceptable, reach the most vulnerable, and preserve local ecosystems.
- Food should be priced not only by its weight or volume but also by its nutrient density, its freedom from contamination, and its contribution to ecosystem services and social justice.
- Governments should expand access to maternal and child health care, as well as education on healthy diets and child feeding practices.
- Supporting smallholder farmers in becoming sustainable and diversified producers; governments and NGOs must seek to improve those farmers' access to agricultural inputs and extension services, coupling local and indigenous agricultural knowledge with new technologies.

- Existing human rights-based multilateral mechanisms and international standards—such as the Committee on World Food Security—must be strengthened to support inclusive policy making and sustainable food systems.

Conclusion

Prioritizing early childhood nutrition is key to ensuring India's development rests on strong and steady shoulders. India's ability to harness long-term demographic dividends rests on it prioritizing nutrition in its health agenda, and reforming the institutional framework through which interventions are delivered.

DAILY QUIZ

Q1. With reference to the "Sakharov Prize for Freedom of Thought", consider the following statements:

- It is an honorary award for individuals or groups who have dedicated their lives to the defense of human rights and freedom of thought.
- It was established in December 1988 by the International Human Rights Organization (IHRO).

Which of the statements given above is/are correct?

- 1 only**
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Q2. Bovine Mastitis is caused by:

- Virus
- Fungus
- Bacteria

Select the correct answer using the code below:

- 1 only
- 2 and 3 only
- 3 only
- 1, 2 and 3**

Q3. With reference to the 'Global Alliance for Climate-Smart Agriculture (GACSA)' which of the following statements is/are correct?

- GACSA is an outcome of the Climate Summit held in Paris in 2015.
- Membership of GACSA does not create any binding obligations.
- India was instrumental in the creation of GACSA.

Select the correct answer using the code given below:

- 1 and 3 only
- 2 only**
- 2 and 3 only
- 2 and 3 only

Q4. Which of the following is/are the aims of "Digital India" Plan of the Government of India?

- Formation of India's own Internet companies like China did.
- Establish a policy framework to encourage overseas multinational corporations that collect Big Data to build their large data centres within our national geographical boundaries.
- Connect many of our villages to the Internet and bring Wi-Fi to many of our schools, public places and major tourist centres.

Select the correct answer using the code given below:

- 1 and 2 only
- 3 only**
- 2 and 3 only
- 1, 2 and 3

Q5. Consider the following statements about Central Bureau of Investigation (CBI):

- It is India's premier investigating agency and counter-terrorist task force.
- It is functioning under the Ministry of Home Affairs, Government of India.
- It is governed by the Delhi Special Police Establishment Act that makes consent of a state government mandatory for conducting investigation in that state.

Which of the statements given above is/are correct?

- 1 and 2 only
- 3 only**
- 2 and 3 only
- 1, 2 and 3