

GEOGRAPHY

Flood Plain Zoning

Recently, a Comptroller and Auditor General of India (CAG) report on preparedness and response to floods was presented in the Kerala assembly. The report was prepared against the backdrop of the devastating Kerala floods of 2018.

The report pointed out that the state is yet to enact flood plain zoning legislation, 45 years after the Union Government circulated to all states a model draft bill for flood plain zoning legislation.

Key Points

About:

- **Concept:** The basic concept of flood plain zoning is to regulate land use in the flood plains to restrict the damage caused by floods.
- **Determining Developmental Activities:** It aims at determining the locations and the extent of areas for developmental activities in such a fashion that the damage is reduced to a minimum.
- **Adds Limitations:** It envisages laying down limitations on development of both the unprotected as well as protected areas.
 1. In the unprotected areas, boundaries of areas in which developmental activities will be banned, are to be established to prevent indiscriminate growth.
 2. In the protected areas, only such developmental activities can be allowed, which will not involve heavy damage in case the protective measures fail.
- **Utility:** Zoning cannot remedy existing situations, although, it will definitely help in minimising flood damage in new developments. Flood plain zoning is not only necessary in the case of floods by rivers but it is also useful in reducing the damage caused by drainage congestion particularly in urban areas.

Vulnerability to Floods:

- India's high risk and vulnerability is highlighted by the fact that 40 million hectares out of a geographical area of 3290 lakh hectares is prone to floods.
- On an average every year, 75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities is Rs. 1805 crores due to floods.

Model Bill for Flood Plain Zoning:

- **About:** The Bill provides clauses about flood zoning authorities, surveys and delineation of flood plain area, notification of limits of flood plains, prohibition of the use of the flood plains, compensation and most importantly removing obstructions to ensure free flow of water. It will seek to replace dwellings in low-lying areas by parks and playgrounds as absence of human settlement in those areas would cut down loss of lives and property.
- **Challenges in Implementation:**
 1. There has been resistance on the part of the states to follow-up the various aspects of floodplain management including possible legislation. The reluctance of the states is mainly due to population pressure and want of alternative livelihood systems.
 2. The lukewarm response of the states towards the enactment and enforcement of the floodplain regulations has fuelled a significant increase in the encroachments into the flood plains, sometimes authorised and duly approved by the town planning authorities.

Related Constitutional Provisions and Other Measures:

- Based on the inclusion of drainage and embankments as entry 17 of List II (State List), flood control has been seen to fall under the purview of the state government, except in the case of "regulation and development of inter-state rivers and river valleys," which is mentioned in entry 56 of List I (Union List).
 1. Floodplain zoning is firmly within the state government's ambit as it deals with the land along the riverbanks and land is a state subject under entry 18 of List II.
 2. The central government's role can only be to issue advisories and prescribe guidelines.
- Flood control and mitigation are not directly mentioned in any of the three legislative lists included in the seventh schedule Constitution.
- The National Disaster Management Authority (NDMA) in 2008 has issued guidelines for states for floodplain zoning as an important "non-structural measure" to mitigate floods.

1. It suggested that areas likely to be affected by floods in a frequency of 10 years should be reserved for green areas like parks, gardens and others while concrete structures should not be allowed there.
2. It also talked about other zones in the floodplain like in areas of flooding in a 25-year frequency and asked states to make plans accordingly in those areas.

Way Forward

As floods cause major damage to life and property every year, it is time the central and the state governments prepare a long-term plan that goes beyond piecemeal measures like building embankments and dredging to control floods.

There is a need for an integrated basin management plan that brings all the river-basin sharing countries as well Indian states on board.

ECONOMICS

RBI's Retail Direct Scheme

Recently, the Prime Minister has launched the Reserve Bank of India (RBI)- Retail Direct Scheme to open up the Government bond market for the retail investors.

Key Points

About:

- In February 2021, RBI proposed to allow retail investors to open gilt accounts with the central bank to invest in Government securities (G-secs) directly.
 - Under the scheme, retail investors (individuals) will have the facility to open and maintain the 'Retail Direct Gilt Account' (RDG Account) with the RBI.
1. Retail Investor is a non-professional investor who buys and sells securities or funds that contain a basket of securities such as mutual funds and Exchange Traded Funds (ETFs).
 2. A Gilt Account can be compared with a bank account, except that the account is debited or credited with treasury bills or government securities instead of money.
- The scheme places India in a list of select few countries offering such a facility.

Aim:

- The move is aimed at diversifying the government securities market, which is dominated by institutional investors such as banks, insurance companies, mutual funds and others.
- While foreign portfolio investors were allowed to invest in G-secs, their holding is around 2-3% in the overall market.

Scope:

- It offers a portal avenue to invest in Central government securities, treasury bills, State development loans and sovereign gold bonds.
- They can invest in primary as well as secondary market government securities markets. Negotiated Dealing System-Order Matching Segment (NDS-OM) means RBI's screen based, anonymous electronic order matching system for trading in Government securities in the secondary market.

Significance:

- **Building an Atmanirbhar Bharat:** So far, in the government securities market, small investors class, salaried class, small traders had to invest through banks and mutual funds in an indirect manner.
- **Improved Ease of Access:** It will make the process of G-sec trading smoother for small investors therefore it will raise retail participation in G-secs and will improve ease of access.
- **Facilitate Government Borrowings:** This measure together with relaxation in mandatory Hold To Maturity (securities that are purchased to be owned until maturity) provisions will facilitate smooth completion of the government borrowing programme in 2021-22.
- **Financialise Domestic Savings:** Allowing direct retail participation in the G-Sec market will promote financialisation of a vast pool of domestic savings and could be a game-changer in India's investment market.

Other Measures Taken to Increase Retail Investment in Government Securities:

- Introduction of non-competitive bidding in primary auctions. Non-competitive bidding means the bidder would be able to participate in the auctions of dated government securities without having to quote the yield or price in the bid.
 - Stock exchanges to act as aggregators and facilitators of retail bids.
 - Allowing a specific retail segment in the secondary market.
1. The secondary market is the market where investors buy and sell securities they already own.
 2. Primary market deals with new securities being issued for the first time.

2. Rising Current Account Deficit

According to a recent report by British brokerage Barclays, India's trade deficit has been jumping continuously since July 2021. The widening Current Account Deficit (CAD) is driven by the massive spike in commodity prices led by crude oil.

The CAD is expected to reach \$45 billion or 1.4% of GDP by March 2021. This will put pressure on the fragile economic recovery.

Key Points

Definition: A current account deficit occurs when the total value of goods and services a country imports exceeds the total value of goods and services it exports. The balance of exports and imports of goods is referred to as the trade balance. Trade Balance is a part of 'Current Account Balance'.

Factor involved in India's Current Account Deficit:

- **High Oil Imports:** In India, close to 85% of the oil demand is met through imports. Due to this it is estimated that every \$10 per barrel rise in global crude prices will widen the trade deficit by \$12 billion or 35 bps of Gross Domestic Product (GDP).
- **High Gold Imports:** Another force driving down the foreign exchange is gold imports.
 1. Recovering domestic demand and the ongoing festive season are boosting Gold imports.
 2. The World Gold Council expects gold demand this year to surpass the 2020 levels and it expects the demand for gold to remain high given the rising wealth effects and incomes.
- **Services, the Positive side:** The report held that the monthly services surplus has improved from an average of \$6.6 billion in 2019 to \$7 billion in 2020, and to \$8 billion in the first nine months of 2021.
- **Overall Impact:** The report ruled out an alarming situation and said that with record high foreign reserves, there are no major risks to macro stability or balance of payments conditions. However, the widening deficit trend may continue for some time as a combination of demand recovery and rising commodity prices will continue to widen the trade deficit sharply.

Balance of Payments

Definition: Balance of Payments (BoP) of a country can be defined as a systematic statement of all economic transactions of a country with the rest of the world during a specific period usually one year.

Purposes of Calculation of BoP:

- Reveals the financial and economic status of a country.
- Can be used as an indicator to determine whether the country's currency value is appreciating or depreciating.
- Helps the Government to decide on fiscal and trade policies.
- Provides important information to analyze and understand the economic dealings of a country with other countries.

Components of BoP:

- For preparing BoP accounts, economic transactions between a country and the rest of the world are grouped under - Current account, Capital account and Errors and Omissions. It also shows changes in Foreign Exchange Reserves.
- **Current Account:** It shows export and import of visibles (also called merchandise or goods - represent trade balance) and invisibles (also called non-merchandise). Invisibles include services, transfers and income.

- **Capital Account:** It shows a capital expenditure and income for a country.
 1. It gives a summary of the net flow of both private and public investment into an economy.
 2. External Commercial Borrowing (ECB), Foreign Direct Investment, Foreign Portfolio Investment, etc form a part of capital account.
- **Errors and Omissions:** Sometimes the balance of payments does not balance. This imbalance is shown in the BoP as errors and omissions. It reflects the country's inability to record all international transactions accurately.
- **Changes in Foreign Exchange Reserves:** Movements in the reserves comprises changes in the foreign currency assets held by the Reserve Bank of India (RBI) and also in Special Drawing Rights (SDR) balances.
- Overall the BoP account can be a surplus or a deficit. If there is a deficit then it can be bridged by taking money from the Foreign Exchange (Forex) Account. If the reserves in the forex account are falling short then this scenario is referred to as BoP crisis.

IMPORTANT FACTS FOR PRELIM**First Joint Naval Exercise: US, UAE, Bahrain and Israel**

Forces from the United Arab Emirates, Bahrain, Israel and the United States Naval Forces Central Command (NAVCENT) began a multilateral maritime security operations exercise in the Red Sea. This is the first publicly acknowledged naval exercise between the United States, Israel and the two Gulf countries.

Key Points**About:**

- The UAE and Bahrain in 2020 normalised diplomatic relations with Israel under a US-brokered deal known as the Abraham Accords, brought together by shared worries about Iran and hopes of economic gains. The US 5th Fleet/NAVCENT is based in the Gulf island state of Bahrain and operates in the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean.
- Since February 2021, Iran and Israel have been accused of engaging in what analysts have called a "shadow war", in which vessels linked to each nation have come under attack in waters around the Gulf in tit-for-tat exchanges.
- Negotiations between Iran and major powers (P5+1) on reviving a 2015 nuclear deal will resume in Vienna on 29th November 2021, with failure carrying the risk of a sharp spike in regional tensions.
- The five-day exercise in the Red Sea is intended to enhance interoperability between participating forces. Maritime collaboration helps safeguard freedom of navigation and the free flow of trade, which are essential to regional security and stability.
- The exercises include boarding, search and seizure training on the USS Portland, an amphibious transport dock ship.

Red Sea:

- The Red Sea is a semi-enclosed tropical basin, bounded by northeastern Africa, to the west, and the Arabian peninsula, to the east.
- The elongated and narrow-shaped basin extends between the Mediterranean Sea, to the north-west, and the Indian Ocean, to the south-east.
- At the northern end, it separates into the Gulf of Aqaba and the Gulf of Suez, which is connected to the Mediterranean Sea via the Suez Canal.
- At the southern end, it is connected to the Gulf of Aden, and the outer Indian Ocean, via the Strait of Bab-el-Mandeb.
- It is surrounded by desert or semi-desert areas, with no major freshwater inflow.
- 6 Bordering Countries: Yemen; Saudi Arabia; Egypt; Sudan; Eritrea; Djibouti.

DAILY ANSWER WRITING PRACTICE

Qns. Given its inclusive development aspirations, can India's ambitious plan of net zero emissions by 2070 and other pledges at COP-26 summit in Glasgow be achieved? Critically examine. (250 words)

Ans:

Introduction

India announced that it will reach carbon neutrality by 2070 as part of a five-point action plan that included reducing emissions to 50% by 2030. India made this pledge at the Conference of the Parties (COP) 26 climate summit in Glasgow, where it also urged developed countries to deliver on their promise of climate financing.

Body

India's performance in Nationally Determined Contributions

- At the fifth anniversary of the Paris Agreement on Climate Change (December 2020), India was the only G20 nation compliant with the agreement.
- India has been ranked within the top 10 for two years consecutively in the Climate Change Performance Index.
- The Unnat Jyoti by Affordable LEDs for All (UJALA) scheme is the world's largest zero-subsidy LED bulb programme for domestic consumers.
- India provided leadership for setting up the International Solar Alliance, a coalition of solar-resource-rich countries, and the Coalition for Disaster Resilient Infrastructure.

Can India achieve carbon neutrality by 2070?

- Exceeding the NDC commitment: India is on track (as reports/documents show) to meet and exceed the NDC commitment to achieve 40% electric power installed capacity from non-fossil fuel-based sources by 2030.
- Reduction in emission intensity of GDP: Against the voluntary declaration for reducing the emission intensity of GDP by 20%-25% by 2020, India has reduced it by 24% between 2005-2016.
- More importantly, we achieved these targets with around 2% out of the U.S.\$100 billion committed to developing nations in Copenhagen (2009), realised by 2015.
- Renewable energy expansion: India is implementing one of the most extensive renewable energy expansion programmes to achieve 175 GW of renewable energy capacity by 2022 and 450 GW by 2030.
- Investment in green measures: As part of the fiscal stimulus after the pandemic, the Government announced several green measures, including:
 - a \$26.5-billion investment in biogas and cleaner fuels,
 - \$3.5 billion in incentives for producing efficient solar photovoltaic (PV)
 - and advanced chemistry cell battery, and \$780 million towards an afforestation programme.
- India's contribution to global emissions is well below its equitable share of the worldwide carbon budget by any equity criterion.

Challenges for India to achieve carbon neutrality

- Any self-sacrificial declaration of carbon neutrality today in the current international scenario would be a wasted gesture reducing the burden of the developed world and transferring it to the backs of the Indian people.
- India's twin burden of low-carbon development and adaptation to climate impacts, is onerous and no doubt requires serious, concerted action.
- India's approach to eventual net-zero emissions is contingent on deep first world emissions reductions and an adequate and unambiguous global carbon budget.
- Meanwhile, India must reject any attempt to restrict its options and be led into a low-development trap, based on pseudo-scientific narratives.

Way forward

- According to the Council on Energy, Environment and Waters implications of a Net-zero Target for India's Sectoral Energy Transitions and Climate Policy' study, India's total installed solar power capacity would need to increase to over 5,600 gigawatts to achieve net-zero by 2070.
- The usage of coal, especially for power generation, would need to drop by 99% by 2060, for India to achieve net-zero by 2070.

- Consumption of crude oil, across sectors, would need to peak by 2050 and fall substantially by 90% between 2050 and 2070.
- Green hydrogen must contribute 19% of the total energy needs of the industrial sector.

DAILY QUIZ

Q1. Consider the following statements:

1. Mullayar River is a tributary of the Periyar River.
2. It originates in Varusanadu Hills.

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

Q2. Consider the following statements about Competition Commission of India:

1. It was established under the Competition Act, 2002.
2. Its chairman and members are appointed by the President of India.

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

Q3. Consider the following statements about Dengue:

1. It is a highly contagious disease caused by a virus that attacks the liver.
2. It is an easily treatable disease.

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**

Q4. Consider the following statements:

1. In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
2. Sexual transmission of Zika virus disease is possible.

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

Q5. With reference to Creative Cities Network, consider the following statements:

1. It is a project of UNESCO launched in 2004.
2. It was created to promote cooperation with and among cities that have identified creativity as a strategic factor for sustainable urban development.

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