ILLEGAL SAND MINING

Why in News

Gujarat government for the first time is planning to deploy drones to crack down illegal sand mining in and around the river beds of Sabarmati, Tapi and Narmada.

Background

Under this plan, the government will conduct a 24x7 surveillance operation.

- *It will protect raid parties from attacks too.*
- *It will help to reach areas of riverbed that are inaccessible.*
- *Now raids would be smarter and more effective.*

SAND MINING IN INDIA

Sand forms **25 %** of the total minerals of Gujarat.

There are about **1200 legal sand mines** in Gujarat, located mostly on riverbeds.

Apprehensions to Illegal Sand Mining in India

- Sand is the fourth most mined minor mineral (source- Indian Bureau of Mines)
- Cases of illegal mining of minor minerals including sand were reached more than 19,000 in 2015 - 16 (source - Ministry of Mines).
- Instances of illegal sand mining constitute 10-12 percent.
- Increasing Urbanization and infrastructure development can further spike the demand of sand and illegal mining activities. As sand is the main ingredient in making concrete and cement.

MMDR ACT

Mines and Minerals (Development and Regulation) Act, 1957 (MMDR)

- Sand is a minor mineral under the MMDR.
- State government under this Act is empowered to prevent illegal mining and related activities.

IMPACTS

LANDSCAPE
Coastal erosion, changes in deltaic structures, quarries, pollution of rivers.

BIODIVERSITY
Impacts on related ecosystems (for example, fisheries).

CLIMATE
Directly through transport emissions.

LAND LOSSES
Both inland and coastal through erosion.

EXTREME EVENTS
Decline of protection against extreme events (flood, drought, storm surge).

HYDROLOGICAL FUNCTIONS
Change in water flows, flood regulation and marine currents.

INFRASTRUCTURES
Damage to Brdiges, River Embankments and Coastal Infrastructures.

WATER SUPPLY
Through lowering of the water table and pollution.

STEPS TAKEN TO PREVENT ILLEGAL SAND MINING

Government has amended the Environment Impact Assessment (EIA) Notification2006. It prescribes for:

a. Mandatory Environmental impact clearance for small-scale sand mines.
b. District-level Expert Appraisal Committee (DEAC) to assess the environmental impact of mines
c. District Environment Impact Assessment Authority (DEIAA) to prepare a District Survey Report for granting clearances for the district

Ministry of Mines with IBM has developed Mining Surveillance System to use the space technology to check illegal mining.

Ministry of Environment, Forest and Climate Change has issued

Sustainable Sand Mining Management Guidelines, 2016

It emphasizes upon the need for

I. promotion of manufactured sand, artificial sand, fly ash etc
II. alternative technologies in construction materials for reducing the dependence on natural sand
III. training of architects and engineers
IV. framing of new laws and regulations
V. providing positive incentives to initiate a shift for lowering dependency on sand

It addresses the issues relating to regulation of sand mining

It prescribes environment clearances for mine lease areas for sand and minor minerals:

i. up to 5 hectare area at the District level.
ii. up to 50 hectares area at State level.
iii. more than 50 hectares area at Central level.

It prescribes bar coding, remote sensing and other uses of technology for stringent monitoring of sand mining

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