

1. Sustainable use of the major and minor natural resources can provide fundamental life support, in the form of both consumptive and public, good services. What are the policy initiatives that are undertaken to tackle illegal and inappropriate mining in India? Explain how the Amendment to the Environment Impact Assessment can be helpful in preventing indiscriminate exploitation of natural resources?

**Answer:**

Preservation of the natural environment and its major and minor natural resources is essential for maintaining community sustainability. Resources like building stones, gravel, sand, limestone, Iron, Mg, Al, Cu, among others have been used for both consumption for survival and public good services, often bypassing and subverting the laws and environment balance. So, there is need to protect and maintain sustainable use of these for present and future generation.

Entry 54 of union list – I & Entry 23 of state list – II of seventh schedule of the constitution of India empowers the Union & State Governments respectively for management of minerals. Anybody found extracting or removing any mineral without obtaining permission from any lawful authority amounts to illegal mining and is liable to be punished under the provisions of the rules. For this Government have undertaken following initiative to tackle illegal and inappropriate mining in India.

- 1) **Issue of Transit pass:** Every leaseholder or permit holder has to use transit pass. Such transit passes issued by authority shows the details of the lease holder / permit holder, date, vehicle number transporting the material, quantity, time etc.
- 2) **First National Mineral Policy (NMP)-** Government in 1993 for liberalization of the mining sector. This aimed at encouraging the flow of private investment and introduction of state-of-the-art technology in exploration and mining. This was aims to minimise inappropriate mining, bring transparency and efficiency.
- 3) **Hoda Committee and Sustainable Development Framework (SDF):** - In line with the Hoda Committee recommendations, the Ministry of Mines commissioned which prepared a Sustainable Development Framework Report in November 2011, for which the new MMDR Bill 2011 will provide statutory backing against illegal mining. The Ministry also set up a Steering Committee against illegal mining.
- 4) **The Mines and Minerals (Development and Regulation) (MMDR) Act, 1957** was amended through the MMDR Amendment Act, 2015. The Amendment Act has, inter alia, stringent punitive provisions for combating illegal mining. Illegal mining has been made punishable with imprisonment for a term which may extend to five years and with fine which may extend to five lakh rupees per hectare of the area.
- 5) **Special Courts:** - Provisions have been made for setting up of Special Courts for the purpose of providing speedy trial of offences relating to illegal mining under (MMDR) Act, 1957.

Further Amendment in Environment Impact Assessment (EIA) can be helpful in preventing indiscriminate exploitation of natural resources by following ways.

- 1) **Bring small-scale mining under its ambit of EIA:** -Ministry of Environment, Forest and Climate Change (MoEF&CC) has finally amended the Environment Impact Assessment (EIA) Notification, 2006, to bring small-scale mining projects under its ambit. The amendment will make environmental clearance (EC)

compulsory for mining of minor minerals in areas less than or equal to five hectares to prevent indiscriminate exploitation of natural resources. Both the Supreme Court and the National Green Tribunal issued orders and directives making ECs compulsory for projects less than five ha.

- 2) **Establishment of authorities at the district level to clear projects:** -The latest notification provides for the establishment of the District Environment Impact Assessment Authority (DEIAA) and District Expert Appraisal Committee (DEAC) to evaluate EC proposals for small-scale leases for minor minerals.
- 3) **District Survey Report (DSR):** -The DSR shall be prepared for each minor mineral in the district separately. As clarified, the main objective of the preparation of DSR is the identification of areas where mining can be allowed and also where mining must be prohibited due to geological and physical limits. The report will also help in calculation of annual rate of replenishment and allowing time for replenishment after mining in that area.
- 4) **Use of a unique barcode for transportation permits:** -To curb illegal mining or transportation of sand, it suggests measures such as the use of a unique barcode for transportation permits, details on how the permit should be printed, use of smart phones and CCTV cameras at the mine site, sophisticated weighing equipment to monitor the movement of sand from the mines and tracking vehicles with radio-frequency identification (RFID) tags and GPS.

## PRACTICE QUESTIONS

### **Answer the following Questions**

1. Identify the factors that determine density of ocean waters. Discuss the latitudinal distribution of density and explain the seasonal changes that occur, if any. Also, illustrate its relationship with ocean currents. (150 words)
2. Explain how the scientific understanding of the earth's interior has improved with analysis of seismic waves. (150 words)