

## **Executive summary: Controls and Systems for Sustainable Mining in Karnataka**

### **Background**

Minerals are valuable natural resources which are finite and non-renewable. Mineral exploration and development is closely linked with the development of country's economy and people. However, as it intervenes with the environment and social structure, a harmony and balance is to be maintained between conservation and extraction in the interest of sustainable development.

In India, the responsibility for the management of mineral resources is shared between the Central and State Governments in terms of entry 54 of the Union list and entry 23 and 50 of the State list of the Seventh Schedule of the Constitution of India. The Mines and Minerals (Development and Regulation) (MMDR) Act, 1957, enacted by the Central Government, lays down the legal framework for regulations of mines and development of minerals. The Mineral Concession (MC) rules, 1960, the Mineral Conservation and Development (MCD) Rules, 1988 and the Granite Conservation and Development Rules, 1999 have been framed for conservation and systematic development of minerals and for regulating grant of permits, licences and leases.

The state of Karnataka, in India is abundant in mineral resources. It is said to be one of the most mineral rich states of India. The mineral belt covers an area of 1.92 lakh sq.km including 29 districts of the state. Karnataka is also endowed with the green stone belt with valuable mineral resources such as gold, silver, copper, iron-ore, manganese, limestone, dolomite, asbestos, bauxite, chromite, and kaolin and granite rock.

### **Audit Objectives:**

The main audit objectives were to ascertain whether effective controls and systems were in place for:

- monitoring and implementation of mining policies of the Government;
- levy and collection of fees, rent, royalty, penalty etc;
- grant and renewal of mining and quarrying leases for prevention of illegal excavation of minerals;
- estimation of mineral resources and for fixing targets of production;

- ensuring that environmental and ecological concerns were addressed and preventive measures were useful; and
- addressing the socio-economic concerns of the persons affected by mining.

### **Significant Audit Findings**

- A committee for implementation and monitoring of Karnataka Mineral Policy, 2008 was formed in 2009, however, even after a lapse of three years, the Committee did not formulate any time bound action plan to monitor implementation of the Policy.
- Procedural inconsistencies and lack of transparency in the department of Mines and Geology while considering applications for mining leases triggered a number of court cases.
- Quarry plans in 104, out of 120 granite quarry leases test checked, were not available, leading to non-monitoring of activities of lessees as per the mining plan.
- Rules to prevent illegal mining, transportation and storage of minerals were not framed till April, 2011 which resulted in irregular mining and transportation.
- Mining operations were taken up without obtaining statutory clearances from Ministry of Environment and Forests/Karnataka State Pollution Control Board (KSPCB). Further, National Environmental Engineering Research Institute (NEERI), Nagpur had proposed phase wise production of iron ore compatible with environmental preservation. However, the quantity of mineral valued at Rs.562.79 crore produced was more than the quantity prescribed in environment clearances and the consent issued by KSPCB, which resulted in disregard of environmental concerns.
- High level of air pollution contributed to the growth of diseases like tuberculosis and other respiratory infections in the mining areas.
- The area under cultivation and irrigation in Bellary had declined leading to the increase in the barren land. Cases of violation of the Child Labour Act were indicative of prevalence of child labour which was against the principle of sustainable development.
- Afforestation in degraded forest area at one and half times of the safety zone area was not done to an extent of 281.16 hectare in 81 mines. Regeneration of safety zone area was not done to an extent of 321.51 hectare in 67 mines.
- An area of 900.68 hectare (68.36 percent of 1317.40 Ha covered by overburden waste dumps) was not taken up for reclamation/rehabilitation.

- The authorities did not ascertain the factual position regarding actual number of seedlings raised, as against the total reported seedlings of 35.92 lakh, and their survival rate.
- Waste dumps were not covered with geo-coir mat and plantations were not done on the surface of the waste dumps which led to erosion during rainy season.
- KSPCB did not monitor mandatory spending of two percent of their total turnover towards afforestation, two percent of profit towards road repairing, whether lessees had invested in rainwater harvesting and ground water recharging. Thus, monitoring system of KSPCB was very weak resulting in violation of statutory provisions.

### **Recommendations**

Major audit recommendations were:-

- The Government may consider putting in place a mechanism to prescribe parameters for fixation of targets of annual production of mines giving due importance to the areas proposed for dumping the overburden in the mining plan so as to discourage unauthorised dumping.
- The Government may issue instructions for taking necessary measures for proper accounting of the plantations raised by the lessees in the mining areas and monitor their periodical survival status in coordination with Forest Department.
- The Government may take up the matter for framing the guidelines/standards for controlling air, noise and water pollution in respect of minor mineral quarries with MoEF.
- The Government may consider evolving a participatory approach by involving local population after a thorough study of likely impact on life, lifestyle and livelihood of the communities for greater common good before grant of mining leases.