

# Chapter

# 12

## Minerals

The mineral potential of Pakistan widely recognized to be excellent but the sector is inadequately developed. This is evident from the fact that its contribution to GNP remained 0.5 percent to 1.0 percent, unchanged over the last many decades. Although many efforts have been and are still being made in developing geological products, institutional, academic and R&D infrastructure, enough remain to be done to enable the sector to take full advantage of its endowment. As a result of these toils, devoted for the development of mineral sector, resources of several minerals have been discovered over the last many decades, including world class resources of lignite coal deposits at Thar; Sindh, porphyry copper gold in Chagai and lead-zinc deposits in Lasbella, Balochistan, gypsum, rock salt, limestone, dolomite, china clays etc in the Indus Basin, ornamental and construction stones in various parts of the country; and about 30 different gems and precious stone deposits in northern Pakistan. There are many other mineral projects in various stages of implementation from grass root through exploration, evaluation to development and utilization stages such as; Energy mineral (coal), Agriculture minerals (rock phosphate, gypsum), Metallic minerals (copper, gold, zinc-lead, chromite, antimong), Refractory minerals (refractory clays, magnesite, chromite, silica sand, dolomite) Glass and Ceramic minerals (kaolin-china clay, nepheline syenite, silica sand), Construction minerals (marble, onyx, granite, sandstones, fossiliferous lime-stones) and gemstones (aquamarine, emerald, topaz, ruby, tourmaline etc.). MTFD 2005-10 covers the full spectrum of minerals industry i.e. objectives and targets, issues, operational strategy for the development of the mineral sector giving emphasis to geological mapping, capacity building of institutions, setting up of geological data base centres, technology upgradation and BIM to mining units, facilitation for the development of small scale mining operations etc. Further identification for the fast track development of a few minerals i.e. copper and gold, use of coal, marble and granite, iron, lead, zinc, chromite and gemstones has been made. Development of porphyry copper deposits in Balochistan by Australian Concern, lead-zinc deposits of Duddar area by a Chinese Company and interest of foreign consultants in the High Mineral potential areas as identified and quantified by German Consultants and documented in MTFD 2005-10 shows the confidence foreign investors repose in the investment oriented policies initiated by the present regime for the development of mineral sector.

### Constraints and Strategy for their Resolution

- Uncertainties in the law and order situations in certain mineral potential areas.
- Inadequate investment in the Mineral sector which is being addressed through provision of funds for the exploration of minerals.
- Insufficient detailed surveying and geological/geophysical mapping (only 37% of the country's area is geologically mapped to a scale of 1:50,000, while geophysical surveys (gravity and magnetic) have even less coverage, at 21% of the total area. This activity has now been accelerated by setting up Remote Sensing Centres in GSP.

- Lack of vision in taking advantages of advancement in geological knowledge, exploration techniques, mining and processing technologies and changing commodity prices. This situation is being addressed by fully utilizing the available physical (institutions, R&D centres and academia) and human infrastructure (trained and highly qualified geo-scientists technologists).
- Inadequate skill levels in the industry, with little opportunity for training, skill development or career progression because of outdated administrative structures. Training and capacity building of personnel in the federal and provincial Mineral Departments are major programs. Value addition of gems and other precious stones is receiving special attention by setting up gems and gemological institute for training of cutting and polishing of gemstone to workers in Peshawar, NWFP.
- The private sector has shown little interest in moving up the value-addition chain, and has relied on low cost in some cases primitive methods of extraction. This situation is being addressed by setting up mine equipment shops in coal mining areas. The health and safety of miners remains an area of concern, which is being tackled through better education and training to mine workers in Mine Rescue Centres.
- Develop awareness of mineral potential of Pakistan through holding of, events, exhibitions, conferences, seminars, production and dissemination of promotional materials both for foreign and local investors.

### **Prospects for 2007-2008**

The focus of the mineral sector during the year, 2007-08 would be on generation of basic geological data and its dissemination through print and electronic media, for attracting international investment particularly in metallic minerals and coal related energy projects by publishing project profiles of world class mineral resources in well reputed mining magazines. Accelerated geological mapping and geochemical exploration of high mineral potential areas of Pakistan would assist in understanding the genesis and geometry of these deposits for their subsequent development. The revised Mineral Policy as and when announced would attract local and foreign investment and accelerate exploration and research activities in the country. Further the minerals that have good chances for export, substitute imports and meet local consumption are being given priority. An allocation of Rs 326 millions has been earmarked for the Minerals (non-fuel) sector. Major projects to be carried out during 2007-08 include: Ground Follow-up Aeromagnetic Anomalies in Chagai District, Balochistan (Rs 35 million), Upgradation/Strengthening of Geoscience Advance Research Laboratories, GSP Islamabad. (Rs 70.180 million), Accelerated Geological Mapping and Geochemical Exploration of the Out-crop area of Pakistan (Rs 40 million), Feasibility Study for Development and Exploration of Chichali Iron ore and Commissioning of Steel Mill at Kalabagh (Rs 52.867 million), Establishment of Project Management Unit (PMU) for PHRD Grant (Rs 44.900 million), Strengthening and Capacity Building of Mineral Wing (Rs 30 million) and others relating to exploration of water in Baluchistan and Gemstones Training oriented projects (Rs 52 million).