

# Ecological Restoration Strategies For Mining Areas of Gujarat

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*Sponsored by*

**Gujarat Ecology Commission**

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GERI Campus, Race Course Road, Vadodara 390 007, India.

**August 1997**

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*Prepared by :*

Gujarat Ecological Society

Vadodara



*For :*

Gujarat Ecology Commission

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GERI Campus, Race Course Road, Vadodara 390 007, India.

*Sponsored by :*

Gujarat Mineral Development Corporation,  
Ahmedabad

**August 1997**



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## FOREWORD

Being a one time concentrated activity mining of minerals has its own environmental and ecological fallout. The adverse consequences manifest in diverse ways like deforestation, soil erosion, air and water pollution, landscape and bio-habitat disturbance and change in quality of life of local people. Hence mining and mineral processing cannot be done with singular economic consideration. It is gratifying to note that because of the growing public concern and legislative and institutional initiatives, it is increasingly being realised that mining and mineral processing should be done with least disturbance to the natural ecosystem. The need of the hour is to evolve strategies for integrating environmental concern and protection with mining activities.

This is our third report on Mining areas of Gujarat prepared at the instance of Gujarat Mineral Development Corporation (GMDC). The report takes stock of the current status of the mining and mineral based industry of Gujarat. The metallic, non-metallic, dimension stone minerals and fuel, along

with their usage, occurrence, quality, production and future prospects, have been documented with the help of experts and agencies working in the field. A comprehensive review of the impact of mining and principles of ecological restoration of mining areas and other major environmental issues which confront the mineral industry have been presented. Various statutes and policies regulating the mineral industry have been analysed. The points for consideration while framing policy guidelines have been indicated keeping in mind the issue of efficient development of mineral resources for sustaining economic well-being of the people without disturbing the balance of nature.

I do hope that this report prepared by Gujarat Ecological Society will provide a basis for evolving policy guidelines to integrate environment concerns with mining activities.

Vadodara  
August 1997

(Hasmukh Shah)

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## LIST OF ABBREVIATIONS

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µg/L	Micrograms per Litre
µg/m <sup>3</sup>	Micrograms per cubic metre
ASI	Archeological Survey of India
BOD	Biological Oxygen demand
CFRI	Central Fuel Research Institute
CSWRTI	Central Soil and Water Conservation, Research and Training Institute
dB	Decibel
DGM	Directorate of Geology and Mining
EEC	European Economic Committee
EMPs	Environment Management plans
GIDB	Gujarat Infrastructure Development Board
GIDC	Gujarat Industrial Development Corporation
GIPCL	Gujarat Industrial Power Corporation Limited
GPCL	Gujarat Power Corporation Limited
GSI	Geological Survey of India
ha	Hectare
ICFRE	Indian Council of Forestry Research and Education.
iNDEXTb	Industrial Extension Bureau
LOI	Loss on Ignition
MCM	Million Cubic Metres
MT	Million Tonnes
MW	Mega Watt
ONGC	Oil and Natural Gas Corporation Ltd.
ppm	Parts per million
PVC	Polyvinyl Chloride
SPM	Solid Particulate Matter
SS	Suspended solids
TDS	Total Dissolved Solids
VM	Volatile matter
WHO	World Health Organisation

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