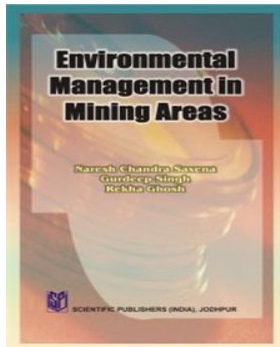


## Environmental Management in Mining Areas



**N.C. Saxena , Gurdeep Singh & Rekha Ghosh**

ISBN	: 9788172332969	Book Format	: Book
Language	: English	Binding	: Hard Bound
Imprint	: Scientific Publishers	Edition	: 1
Pages	: 410	© Year	: 2021
Weight	: 650 Gms	Trim Size	: 5.75 x 8.75

**Print Book** : ~~₹2,450.00~~ **₹2,205.00** **10%Off**

### Blurb

This book, which is a compilation of first hand inputs from the environmental experts, is being put forward to fulfil the much needed requirement of the mineral industry. The book in its seventeen chapters outlines roles of executives in environmental management environmental administration; environmental impacts; societal environment, ecological environment; land environment including subsidence management, and land use planning; environmental implications of mine fires; water environment including water management; air pollution management; noise pollution management; environmental impacts of blasting; environmental impact assessment; application of remote sensing; preparation of environmental management plans, and environmental economics. for the benefit of the mineral industry. It is anticipated that the book will be useful to the executives of the mineral industry; the officials of the regulatory agencies, the researchers and academicians, and the students in undergraduate and post graduate programmes. The book will also be a useful addition to the libraries.

### Table of Contents

1. INTRODUCTION - Naresh Chandra Saxena  
Preamble, Human Environmental Concern; Mining Environment, Indian Scenario; Objectives and Strategy of CIL's Environmental Policy; Environmental Management Ingredients; Management of Mining Environment ; Annexures 1.1 to 1.4
2. ROLES OF EXECUTIVES IN ENVIRONMENTAL MANAGEMENT - Naresh Chandra Saxena  
Preamble, Roles of Executives, Environmental Training, Annexures 2.1-2.3
3. ENVIRONMENTAL ADMINISTRATION WITH SPECIAL REFERENCE TO MINING - Gurdeep Singh & Naresh Chandra Saxena  
Preamble; Central Government Organisations; State Government Organisations; Educational Institutions; Research Organisations; Information System; Mining Companies; Categorisation of Areas; Annexures 3.1 to 3.5
4. ENVIRONMENTAL IMPACTS OF MINING AND ASSOCIATED ACTIVITIES - Naresh Chandra Saxena  
Preamble; Activities in Mining Complexes; Impacts of Activities; Impacts on Societal Environment; Impacts on Ecological Environment ; Impacts on Land ; Impacts on Water Regime; Impacts on Atmosphere; Noise and Vibrations
5. SOCIETAL ENVIRONMENT - Naresh Chandra Saxena  
Preamble; Societal Status; Societal Indicators; Quality of Life Criteria; R&R Policy of CIL; Planning for Societal Development; Sources of Information; Selected Occupational Health and Safety Standards; Annexures 5.1 to 5.2
6. ECOLOGICAL ENVIRONMENT - Subodh Kumar Maiti  
Preamble; Structure and Functions of Ecosystem; Basic Concepts; Ecological Basis of Reclamation; Formulation of Ecological Goals; Site Preparation; Seed Bed Preparation; Seeding; Criteria for Selection of Species and Planting Techniques ; Nursery Development ; Considerations
7. LAND ENVIRONMENT - Rekha Ghosh  
Preamble; Changes in Drainage Pattern; Top-soil and Sub-soil Management ; Reclamation; Land Use Planning and Management; Annexure 7.1
8. SUBSIDENCE MANAGEMENT - Naresh Chandra Saxena  
Preamble, Mechanisms of Subsidence , Dangers to Underground Workings, Subsidence Management, SLMM Planning
9. ENVIRONMENTAL IMPLICATIONS OF MINE FIRES - Durga Charan Panigrahi  
Preamble; Environmental Implications of Mine Fires; Delineation of Mine Fire; Delimiting the Fire Area; Methods for Liquidating Mine Fire; Assessment of Impact from the Proposed Action of Fire Control; Success Story in Some Fire Control Projects
10. WATER MANAGEMENT - Rekha Ghosh, Gurdeep Singh & Naresh Chandra Saxena  
Preamble; Water Pollution ; Water Quality Standards ; Water Pollution Acts ; Water Quality Criteria ; Water Pollution in Mining Areas ; Water Balance; Water Management ; Water Quality Control Issues and Strategies; Augmentation of Pumped out Mine Water; Prevention and Control of Acid Mine Drainage; Water Pollution and its Management in Coal Washeries; Effluents from Workshops and Vehicle Wash Plants; Water Pollution and Management Strategies from Seepage and Run-off from Overburden/ Waste Dumps and Mine Benches; Water Pollution and its Management due to Domestic Effluents/ Sewage
11. AIR POLLUTION MANAGEMENT - Gurdeep Singh & Asim Kumar Pal  
Preamble; Air Pollution; Air Quality Standards; Air Quality Acts; Air Pollution in Mining Complexes; Air Pollution Control ; Air Pollution Monitoring; Micro-meteorology and Air Pollution Dispersion
12. NOISE POLLUTION MANAGEMENT - Asim Kumar Pal  
Preamble; Fundamentals of Noise; Noise Impacts; Noise Pollution in Coal Mining Complexes; Noise Status of Different Mining Complexes; Noise Control; Noise Model; Noise Impact Assessment; A Brief Outline of Systematic Noise Monitoring Procedure for Coal Mining Complex; Noise Monitoring
13. ENVIRONMENTAL IMPACTS OF BLASTING THEIR MITIGATION - Naresh Chandra Saxena  
Preamble; Blast Induced Vibrations; Ground Vibration Prediction; Vibration Standards; Vibration Control; Control of Fly Rock; Selection of

Explosive and Blast Design; Noise and Overpressure; Dust and Fumes

14. ENVIRONMENTAL IMPACT ASSESSMENT - Indra Nath Sinha & Gurdeep Singh

Preamble; Definition of EIA; Impact Mitigation; EIA of Mining Projects; Environmental Policy/Legislation; Mining Technology-Alternatives; Anticipated Environmental Impacts; Significance of Impacts; Environmental Safeguards/Mitigation Measures; Public Participation and Consultation; Decision Making ; Monitoring ; EIA Methodologies ; Adhoc Methods ; Checklist Methods ; Overlay Methods ; Matrix Methods; Network Approach ; Battelle Environmental Evaluation System

15. APPLICATIONS OF REMOTE SENSING TECHNOLOGY - Vinoy Kumar Srivastava

Introduction; Radiation wavelengths important in Remote Sensing; Sensors of prime importance in Remote Sensing; Stages in Remote Sensing; Data Processing; Applications; Environmental Pollution and Mining

16. PREPARATION OF ENVIRONMENTAL MANAGEMENT PLANS - Naresh Chandra Saxena

Preamble; Preparation of EMPs; Part A : Project Objectives, Essentiality, Scope and Screening; Part B : Prevailing Environmental Scenario; Part C : The Project; Part D : Environmental Impact Assessment; Part E : Environmental Impact Mitigation Planning and Analysis; Part F : Corrective Measures; Annexure 16.1

17. ENVIRONMENTAL ECONOMICS - Naresh Chandra Saxena

Preamble; Role of Economics in Environmental Management; Environment as a Capital; Environmental Economics; Economic Policies and Environment; Valuation Techniques; Cost Benefit Analysis (CBA); Concluding Remarks.

This is computer generated document and does not require signature

Scientific Publishers

Date :- Wed Feb 01 2023