

MINE CLOSURE

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Dedication

The book is dedicated to

My grandchildren

Ayush, Nishant, Riya, Archit & Subhanshu

My daughters and son-in-laws

Komal-Sunil, Paridhi-Dinesh & Seema-Sridhar

And

My wife

Sudha

For their unending love and affection.

PREFACE

Mining is basically an intermediate use of land because before and after the mining activities the land is of no use to the mining companies. Legally the mining companies get lease for exploitation of minerals/fossil fuels for a definite period of time or till the reserves are exhausted. Mining causes various impacts on all the components of environment. In most situations the impacts on land are severe and may cause the land to become useless for any economic use after mining. Since, the mining companies take land areas which have been in various uses before the onset of mining activities it should have been obligatory for the companies to develop the land areas for uses most suitable for the economic activities after mining. Though this was known right from the inception of the mining activities the efforts towards developing the land after mining were negligible. This has resulted in devastation of mined out land in many locations in the country. Keeping in view the importance and the necessity of development of land areas legislation have been formulated for mine closure.

Since, the legislation in respect of mine closure are recent not many mines have been closed in accordance with the provisions therein. In fact a critical review of the legislation reveals that a lot of work is still required to be done to make mine closure really effective. Keeping in view the future requirement of mine closure the book has been designed to help in mine closure planning and implementation with efforts to integrate mine closure in mine planning. As real indigenous examples of mine closure are not available readily attempts have been made to provide guidelines for planning and implementation.

While designing the book efforts have been made to incorporate necessary knowledge base for assistance in mine closure planning and implementation and wherever necessary reference has been made to relevant literature. Some of the guidelines have been taken from the previous publications of the author.

The author is highly obliged to Dr. Manoj Gupta of Tata Steel for making valuable suggestions and sharing his vast experience in environmental management in opencast coal mines in the formulation of the book.

The book is expected to be useful to the practicing mining engineers and environmentalists in mine planning and design. It should also be useful to the researchers and students of mining and environment.

N.C. Saxena

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