

A REVIEW ON ENVIRONMENTAL IMPACTS OF MINING ON BIODIVERSITY OF ANGUL - TALCHER OPEN MINING SITE

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ABSTRACT

Biodiversity sustains human livelihoods and life itself. An estimated 40 per cent of the global economy is based on biological products and processes. As the biodiversity harbors a great amount of diversity with respect to species diversity, crop diversity, etc. which provides a rich amount of a well evolved system over time background support for rich resources. In Angul-Talcher area, in recent years, intervention of human activities has been very much noticed. Mining is on rise for last few decades in the area, covering huge belt of land and eventually also harming the forest cover of the Angul-Talcher forest division. Environmental Impact Assessment is a study of the effect of a proposed mining project, plan or program on the environment. The present paper attempts to reveal the baseline environmental quality and socio-economic setting in and around such mining sites with special reference to the effects on the biodiversity, air, water, changes of land use pattern and occupational health effects of mine workers etc.

Keywords:- Angul-Talcher, Biodiversity, EIA, Fauna, Flora, Mining

INTRODUCTION

The Angul - Talcher in India is a land rich in variety of resources and dense forests. Environmental impact assessment is an objective analysis of the probable changes in the physical, bio-physical, and socio-economic characteristics of the environment. The prediction and evaluation of the environmental consequences enable the planner to plan better so as to avoid irreparable damage to biodiversity and to ensure sustainable development [1]. Mining tends to make a notable impact on the environment, the impact varying in severity depending on whether the mine is working or abandoned, the mining methods used, and the geological condition (Laura J., Sonter, December 5, 2008). It causes massive damage to landscape and biological communities of the earth. The unscientific way of mining poses a serious threat to the biodiversity, resulting in the reduction of forest cover, erosion of soil in a greater scale, pollution of water, air and land and reduction in forests. The problems of waste rock dumps become devastation to the landscape around mining areas. Mining is achieved through several activities from exploration through exploitation to processing and finally to the consumer. Through every phase of the mining activity, extensive man-made damage is caused to the environment. Due to improper planning and negligence of regulations, mining activities result in an appreciable damage, degradation and deterioration of the biodiversity, some medicinal plants and ecological damage to water, air and soil occurs [5].

STUDY AREA

Angul, a centrally located district of Odisha covers a geographical area of 6232 square kilometers and lies between 20° 31' N and 20° 40' N Latitude, 84° 15' E and 85° 23' E Longitude. The study area is located in Angul-Talcher forest division in the central part of Odisha. The coal fields are present in different areas which are named as Jagannath area, Bharatpur area, Lingaraj area, Hingula area and Talcher area. The present study primarily focuses on the impacts of opencast coal mining in the mining affected areas.

MATERIALS AND METHODS

Field studies were conducted from time to time during both winter and summer. Data and literature were gathered from various sources. The information related to the status of health of the inhabitants and socio-economic impacts were collected by using structured questionnaires. The respondents include randomly selected mine workers and head of families residing in mine areas. The present paper is aimed at