Mining and its Impact on the Environment

Mining and its Impact on the Environment

Minerals and metals are fundamentally incredibly important to societies all over the world. The activities required to extract minerals, however, often have negative impacts on forest landscapes and habitats. Forest health is not only about deforestation; mining has been found to produce severe impacts on water and soil that can indirectly impact forest health and its ecological integrity. Moreover, impacts of mining can become significant when multiple instances of mining activities happen at the same location simultaneously, as was found in the Indonesian case studies. Therefore, there is still the need to identify and attempt to reduce the impacts of mining even in a landscape dominated by activities like agriculture and forestry. Artisanal mining is typified as formal, informal, or illegal mining operations with predominantly rudimentary technologies in the exploration and extraction by individuals or large groups of people. Small-scale mining operations can also be mechanized, or semi-mechanized, and or have a greater degree of capitalization than artisanal mining. The World Bank’s extractive industries in forest landscapes program seeks to address these challenges by promoting forest-smart extractive investments to ensure that investments in the extractives sector do not erode forest capital and instead generate positive forest outcomes. The artisanal and small-scale
mining (ASM) study and the parallel study on large-scale mining (LSM) share the overarching objective of supporting the World Bank’s efforts to help client countries ensure that resource extraction from forested areas serves as a force for poverty reduction and sustainable development while respecting the environment and the needs of local communities. In order to achieve a forest-smart ASM sector, adopting an integrated approach is recommended.

Contour Coal Mining Overburden as Solid Waste and Its Impact on Environmental Quality

The Impact of Mining on the Landscape

Some Examples of Mining in Ireland and Its Impact on the Environment

As it has grown in length and level through successive editions, the same author’s Introduction to Ore Geology (now Ore Geology and Industrial Minerals) has left behind its original audience: first- and second-year students. This new textbook, designed to fill that niche, was written specifically for introductory courses. Introduction to Economic Geology and Its Environmental Impact covers oil, coal, water and nuclear fuels, as well as economically important ores and bulk minerals. In keeping with current concerns and constraints, particular attention is paid to the impact of mining and drilling on the environment.

Analysis of Mining Activity in Rajsamand Using GIS and Remote Sensing

The importance of corporate social responsibility with a focus on gender diversity has been widely debated in modern businesses. Of specific issue is the importance of gender diversity and its impact on the mining industry including the communities in which they are established. Corporate Social Responsibility and the Inclusivity of Women in the Mining Industry: Emerging Research and Opportunities is a pivotal reference source that explores how multinational mining corporations influence the life of women in international mining communities. While highlighting topics such as corporate social responsibilities, socioeconomics, and management systems, this publication is ideally designed for industry professionals, engineers, managers, policymakers, academicians, and researchers.

Technological Change and Its Impact on Labor in Four Industries

Our National Forests at Risk

Ancient mining activities and its impact on environment and human societies: 2nd Mining in European History-Conference ; special conference of the FZ HiMAT, Innsbruck, November 7th - November 10th 2012 ; conference guide

The impact of mining is too big to ignore in a world of oversubscribed water. This is true of conventional mining as much as - or even more than - hydraulic fracturing (fracking). The legacy issues of such mining on water have not been fully appreciated, especially the irretrievable effects mining has had on communities and ecosystems around the world through its impact on water. Yet this is not an 'us-or-them' problem: the wealth, influence and technical knowledge of mining interests can and must be part of the solution. All of the contributions to this volume either consider the deficiencies of existing governance structures and the need for better ones, or explore the use of new techniques to identify and evaluate social and environmental impacts.
The chapters in this book were originally published in the journal Water International.

Safety and Its Impact on Technical Design and Systems in Coal Mining

Mining and Its Environmental Impact

The issue of mining in Ghana has attracted an important and recent debate. On the beneficial side, there are those who point to state revenue, industrial development, employment opportunities and social amenities such as the building of roads, schools and clinics, and provision of electricity and granting scholarships to children. Adherents to such a stance see mining as the propeller of economic development and growth. However, there are those who see mining as leading to environmental degradation and exploitation. In particular, they point to large tracts of land and forests that are being destroyed by the stripping of the top soil, thereby leading to soil erosion and a destruction of the vegetation. Also mentioned are the significant dust, black smoke, bad odor and other forms of chemicals, which pollute both air and water. Dr. Ofosu-Mensah investigates the extent to which mining in Akyem Abuakwa raised such concerns from Ghanas Pre-Colonial Era up to 1943. Specifically, he meticulously assesses the impact of mining on the state from the pre-colonial era up to the first four decades of the twentieth century. Important questions that Dr. Ofosu-Mensah addresses include: How traditional miners acquired land for mining, the nature of the indigenous technology used in mining, and its impact on the environment. Ofosu-Mensah addresses, explicates and exemplifies the types of benefits and opportunities that scientific mining created for the people of Akyem Abuakwa and the impact of mining on food security in the state of Akyem Abuakwa. Finally, he tackles the problem of the extent to which mining contributed to the problem of land alienation in the state and social, legal, and moral issues raised by such alienation and loss of land rights.

Corporate Social Responsibility and the Inclusivity of Women in the Mining Industry: Emerging Research and Opportunities

“This book explores Native American and Euro-American lead mining in the Midwest. As Europeans flooded North America and moved westward, their own mining practices were greatly informed by Native American mining methods already in place. And while many researchers have explored gold, silver, and copper mining and smelting, lead has not received much scholarly attention, despite a long history of Native American and European desire for the ore. Chambers reflects on how early mining techniques affected the culture clash between Native Americans and European colonists, all the while tracking the impact increased mining had on the environment of what would become the states of Illinois and Missouri”--

The impacts of artisanal gold mining on local livelihoods and the environment in the forested areas of Cameroon

This book investigates the Upper Silesian Coal Basin (USCB), one of the oldest and largest mining areas not only in Poland but also in Europe. Using uniform research methods for the whole study area, it also provides a summary of the landscape transformations. Intensive extraction of hard coal, zinc and lead ores, stowing sands and rock resources have caused such extensive transformations of landscape that it can be considered a model anthropogenic relief. The book has three main focuses: 1) Identifying anthropogenic forms of relief related to mining activity and presenting them from a spatial, genetic and age perspective; 2) Determining the changes in the morphometric characteristics of relief and the conditions for matter circulation in open systems (drainage basins) and closed systems (land-locked basins) caused by the extraction of mineral resources; and 3) Estimating the extent of anthropogenic denudation using two different methods based on raw-material output and morphometric analysis. In
Poland, no other mining area has undergone such intensive mining activity as the Upper Silesian Coal Basin during the last half century. Its share in the total extraction of mineral resources was as high as 32%. The total extraction of hard coal in the Upper Silesian Coal Basin from the mid-18th century until 2009 was the sixth largest in the world, and the permanent, regional effects of mining anthropopressure on the relief are among the most severe in the world. The anthropogenic denudation rate in the Upper Silesian Coal Basin, as well as the Ruhr Coal Basin (Ruhr District) and the Ostrava-Karvina Coal Basin, ranges from several dozen up to several hundred times higher than the rate of natural denudation, irrespective of the calculation method used. It would take the natural denudation processes tens of thousands of years to remove the same amount of material from the substratum as that removed through human mining activity.

Mining Mirror

Winner of the 2007 E.B. Burwell, Jr. Award of the Geological Society of America Mining activity has left a legacy of hazards to the environment, such as waste, unstable ground and contamination, which can be problematic when redeveloping land. This book highlights the effects of past mining and provides information on the types of problems it may cause in both urban and rural areas. By way of example, the book also demonstrates how such problems may be anticipated, investigated, predicted, prevented and controlled. Furthermore, it shows how sites already affected by mining problems and hazards can be remediated and rehabilitated. Covering subsidence, surface mining, disposal of waste, problems resulting from mine closure and mineral processing, Mining and its Impact on the Environment is an excellent reference for practising mining and geotechnical engineers, as well as students in this field.

The Coal Nation

Social science research is emerging on a range of issues around large and small-scale mining, connecting them to broader social, cultural, political, historical and economic factors rather than purely measuring the environmental impacts of mining. Within this broader context of global scholarly attention on extractive industries, this book explores two specific contexts: the cultural politics of coal and coal mining, within the context of one particular country, India, which is the third largest coal producer in the world. Both contexts are special; with its separate Ministry, coal occupies pride of place in contemporary India, shaping the energy future and influencing the economic and political milieu of the country. The supremacy attributed to coal mining in contemporary India represents how ‘coal nationalism’ has replaced ‘coal colonialism’ in the country, turning this commodity into an icon, a national symbol. In recent years the extraction of coal in forest-covered resource peripheries has dispossessed and pauperised many tribal and rural communities who have used these resource-rich lands for their livelihoods for generations. The combustion of coal to produce electricity constitutes the compelling need, and the factor that prevents the Indian state from fully engaging with the impending realities of a climate-changed future. All these reasons make the timing of this book of crucial importance. In particular, The Coal Nation explores the complex history of coal in India; from its colonial legacies to contemporary cultural and social impacts of mining; land ownership and moral resource rights; protective legislation for coal as well as for the indigenous and local communities; the question of legality, illegitimacy and illicit mining and of social justice. Presenting cutting-edge multidisciplinary social science research on coal and mining in India, The Coal Nation initiates a productive dialogue amongst academics and between them and activists.

Mining and Its Impact on the Environment

The Water Legacies of Conventional Mining
Our national forests at risk: the 1872 mining law and its impact on the Santa Rita Mountains of Arizona: oversight field hearing

This first issue in the series contains nine articles written by experts from the mining industry, regulatory authorities, and academia, and incorporates the latest research.

Mine Closure and its Impact on the Community

Termination of Underground Coal Mining and Its Impact on the Environment

The Iron Ore Mining Sector: Its Impact on the Liberian Economy

The Role of Law in Facilitating Mining and Minimizing Its Impact on the Living Environment

International Law of the Sea and the Future of Deep Seabed Mining

Minerals and Mining Regulation in Ghana and Its Impact on Foreign Investment

Mining in European History and Its Impact on Environment and Human Societies

Forest-Smart Mining

Draft Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program

Early Mining and Metalworking: its impact on the Environment

Nearly 25 yrs ago, large-scale mining began in the Rajsamand area. Mining and smelting at its base metal deposits in this region are one of the oldest in the world, dating back to more than 2500 yrs. Mining industry in the region is today deriving and garnering its profitability purely through sustainable exploitation of scarce natural resources. Thus, monitoring of mining activity in this area over years become important. Remote sensing satellite data provide wide area coverage for such events. The present study addresses monitoring of mining activity and its impact on the natural resources using GIS data packages. The study become significant, as the assessment of erratic mining activities would prove helpful in minimizing the hazard it is causing to the ecology and other natural resources by checking them and employing suitable measures to combat the havoc caused by them.

Mandatory Oil Import Control Program, Its Impact Upon the Domestic Minerals Industry and National Security
Gray Gold

**Mining Subsidence and Its Impact on the Environment**

This study assesses the impact of artisanal gold mining in the Ngoyla-Mintom Forest Massif (NMFM) on local livelihoods and the environment. The methodology for the research consisted in a literature review, visits to eight mining camps in the periphery of Mintom, interviews with 95 miners, focus group discussions with actors involved in activities related to gold mining, and stakeholder consultations. The results show that miners earn a minimum of XAF 80,000 (US$ 160) per month, which is about three times the average wage in Cameroon (XAF 28,216 or US$56) and as much as XAF 800,000 (US$ 1600) a month. Mining leads to the creation of many associated activities such as portering, catering and the intensification of hunting, collection of NTFPs, and fishing, among others. The most negative social impact of mining is associated with activities such as prostitution, which leads to the quick spread of sexually transmitted diseases (STDs) including HIV/AIDS. Mining and its associated activities also have negative impacts on the environment such as destruction of fragile forest ecosystems especially swamps, diversion, sedimentation and pollution of small water ways, and soil destruction, although at a relatively small scale.

**Mandatory Oil Import Control Program, Its Impact Upon the Domestic Minerals Industry and National Security**

**AIDS in Africa and Its Impact on the South African Mining Industry**

Winner of the 2007 E.B. Burwell, Jr. Award of the Geological Society of America. Mining activity has left a legacy of hazards to the environment, such as waste, unstable ground and contamination, which can be problematic when redeveloping land. This book highlights the effects of past mining and provides information on the types of problems it may cause in both urban and rural areas. By way of example, the book also demonstrates how such problems may be anticipated, investigated, predicted, prevented and controlled. Furthermore, it shows how sites already affected by mining problems and hazards can be remediated and rehabilitated. Covering subsidence, surface mining, disposal of waste, problems resulting from mine closure and mineral processing, Mining and Its Impact on the Environment is an excellent reference for practising mining and geotechnical engineers, as well as students in this field.


Committee Serial No. 90-25. Considers impact of mandatory oil import program on domestic energy fuel and mineral industries. Includes Interior Dept announcements of oil import allocations to Phillips Petroleum Co. and other oil companies, 1965-1968 (p. 87-137).

**An Introduction to Economic Geology and Its Environmental Impact**

**Valuing the Environmental, Social and Cultural Impacts of Coal Mining Projects in NSW, Australia**

**The Economic, Social and Political Impact of Mining on Akyem Abuakwa from the...**
Pre-colonial Era Up to 1943

Ancient Mining and Its Impact on Modern Mineral Exploration in Saudi Arabia

The abundant and cost effective nature of coal as an energy source is reflected in forecasts of strong growth in global demand for coal, particularly from the non-OECD countries of China and India. New South Wales (NSW), with its abundant coal resources, is well placed to provide coal resources to meet this growth in demand through expansion of existing coal mines and the development of new mines. However, this would have a range of potential environmental, social and cultural impacts and would require Environmental Impact Assessment (EIA) under the NSW Environmental Planning and Assessment Act, 1979. Standard EIA encompasses a range of technical studies to assess the biophysical impacts of projects but provides no theoretical or practical framework for weighing up positive and negative impacts to determine if a project should proceed or not. The application of neoclassical welfare economics through benefit cost analysis (BCA) can remedy the deficiencies of standard EIA and aid in more efficient decision-making. This is particularly the case where nonmarket valuation methods are used to estimate the welfare effects of environmental, social and cultural impacts. Nevertheless, historically BCA and nonmarket valuation have rarely been undertaken as part of the NSW EIA process. This thesis addresses the significant gap that exists in converting the conceptually developed techniques of BCA and nonmarket valuation to practical application in the policy realm. It does this through the application of BCA, including nonmarket valuation, to a sequence of coal mining case studies over an 18 month time frame in a real policy setting. It finds choice modelling (CM) to be the preferred approach for the valuation of multiple impacts and mutually exclusive policy options. The thesis demonstrates that the community hold significant positive values for reducing the impacts of coal mining on streams, Aboriginal heritage, upland swamps, native vegetation and rural villages. The CM case studies also show that community welfare would be significantly reduced by any proposals that decrease the length of time that the mines provide employment. Social and cultural attributes are therefore relevant attributes for inclusion in CM studies of coal mining proposals. The thesis also provides evidence that the community holds positive economic values for the provision of biodiversity offsets, through planting and protection of vegetation in the landscape. Integration of the CM results into BCA demonstrates how nonmarket valuation can enhance the role of BCA as a tool for decision-making. While CM has a number of strengths over other nonmarket valuation methods, its application can also be associated with a number of methodological issues, particularly around the framing of the questionnaire. A number of attribute framing issues in the application of CM are examined. Split sample analysis in the CM applications is used to examine the impact of including additional policy relevant attributes in choice set design, providing cumulative impact information instead of project specific impact information and using different temporal payment vehicles. The nonlinearity of the attribute representing employment provided by the case study mines, is also investigated.

Mining Transportation Policy and Its Impact on Mineral Exploration

The Coal Mining Heritage of Northeaster[n] Pennsylvania and Its Impact on Higher Education

2nd Mining in European History-Conference
Copyright code: ce0b4f21cefd3b024f3803ec47ba0a5d