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GEO-ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS OF MINING OF CONSTRUCTION MATERIAL: A REVIEW OF LITERATURE

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Abstract

Nature is being mercilessly exploited by mankind in various ways for greed and short-term benefits without realizing its consequences. Degradation of environment due to population explosion, rapid industrialization, unplanned urbanization and destruction of natural resources, has made the life of human beings miserable on the earth. The main intent of the present paper is to introduce the academicians, policy makers and planners to recent research trends in the field of extraction of construction material from earth. It presents a detailed review of literature on the processes and patterns of extraction of construction material and their potential geo-environmental and socio-economic impacts world over since 1990s. A detailed survey of literature on this theme has been categorized into three major groups and the case studies pertaining to each group have been succinctly described in subsequent sections. The review is based on literature available through internet and manual library consultation of national and international database of peer-reviewed scientific journals, reports, monographs, newspapers and M.Sc, M.Phil and Ph.D dissertations. The study reveals that the bulk of the literature relates to impacts of extraction of construction material on geo-environmental, socio-political-economic, health hazard and safety issues. There are some studies which deal with processing stages of raw materials such as stone crushers. There are also studies relating to large-scale mining and only a limited number of them belong to developing countries. Respiratory impacts and problematic occupational health hazards relating to mining are widely studied. There are evidences of long-term impacts of mining on health of workers. There has been a rapid increase in use of new techniques (such as Remote Sensing and GIS) in mineral extraction studies since early nineties but most applications are still in their infancy. Based on this review, the study also provides some fundamental methodological recommendations for studies on mineral exploitation in developing nations.

Introduction

Minerals cover a wide variety of naturally occurring substances which are generally extracted for human use. Mining is defined by UNEP as "the extraction of minerals from the earth". The extraction of valuable minerals or other geological materials from the earth is a process that begins with the

exploration and discovery of mineral deposits and continues through processing to the closure and remediation of worked-out sites. The minerals extracted in the greatest quantities are those used in construction industry. Mining of construction material mainly include sand, clay, sandstone, slate, marble and lime stone. But extraction of construction material from the earth crust is being done on heavy environmental and social costs. There is a plenty of literature available to highlight the geo-environmental and socio-economic impacts of mining of construction material in different parts of the world.

The physical environment is being exploited recklessly by human beings world over, particularly since the advent of industrial societies. The issues pertaining to environmental degradation have become a prime concern to the society and researchers since the Earth Summit, 1992 (Gutti, et al., 2012). There is an urgent need of maintaining focus on environmental issues as these are directly linked to survival of human civilization. The environmental degradation caused by mining of construction material has been central theme of many studies (Mayers, 1999; Mortin, 1999; Kartam et al., 2004; Katz, 2006). In 21st century world, many regions are witnessing a spurt in construction and building of infrastructure (Singh et al., 2007). In 1800, Beijing was the only city with a population exceeding one million and worldwide only seventy four cities had population more than one lakh (Johnson et al., 2007). No matter what are the driving forces of urbanization, today over two hundred metropolitan areas have population in excess of 1 million. To meet this ever growing demand for housing and infrastructure, construction material like sand, stone, clay and cement are needed in large quantities (Tepordei, 1995; Marh and Pathania, 2008; Padmalal et al., 2008; Leeuw et al., 2010). It is estimated that some 13 billion tons of stone, 10 billion tons of sand and gravel, and 500 million tons of clay are used annually (Monforton and Windsor, 2010). With the rapidly growing world population and increasing mega infrastructure projects, these figures are expected to increase. The extraction of construction material at such a large scale is driven by the demand created in the process of construction of high rise group housing and commercial complexes, growth of new private townships, adding more lanes to highways, expressways, flyovers, bridges, modernization of airports, metro railways and other major infrastructure projects (Singh et al., 2007). Due to all these factors demand of extraction material has increased manifold which has given ample impetus to mining of construction material in large quantity. This demand for construction material is growing around the world, particularly in newly developing countries, where the rapid economic development causes strong growth of the construction industry (Leeuw, et al., 2010).

For deriving the construction materials mining operations include drilling, blasting, extraction, loading, transportation of mined material, dumping of waste materials etc. All these activities involved in availing the construction material usually amount to environmental deterioration of various degrees (Chandrasekaran and Ramkumar, 1991; Agarwal and Gupta, 2006; Padmalal, 2006; Bhadra et al., 2007; Bahrami et al., 2008; Ahmed et al., 2010; Zhang et al., 2012; Hussain, 2013).Destructive effects of extractive industry start with exploration, extend through the extraction and processing of minerals, and may continue even after closure of mine (Drew et al., 2002; Maheshwari and Badola, 2007; Badola, 2008; Maheshwari,

2008; Pal, 2009; Obeng, 2010). Extractive activities affect almost all environmental factors namely land, air, water, flora and fauna and human environment including community health and safety, local community lifestyles, cultural survival, social order and economic well-being (Hilson, 2002; Labonne, 2002; Donoghue, 2004, 2005; Haritash et al., 2006; Badenhorst, 2009; Musah and Barkarson, 2009; Monforton and Windsor, 2010; Nanda et al., 2010; Khandelwal, 2011; Saini et al., 2011; Dasgupta et al., 2012; Padhy, 2013). Adverse effects of mining of construction material include permanent loss of natural resources, alteration in land-uses, degradation of ecosystem, destruction of key flora and fauna, displacement of population, desertion of settlement, crime and diversion of individuals and communities from traditional practices to boom-bust employment and mining (Clark, 1996; Kumar, 1996; Macfarlane and Mitchell, 2003; Dutt, 2003, 2009; Choudri and Chachadi, 2006; Connors, 2007; Shareef, 2007; Badola, 2008; Maheshwari, 2008; Maheshwari and Intodia, 2010; Chauhan, 2010; Govindaraj et al., 2013). The mining sites of construction material directly or indirectly pose serious threats to both the living as well as non-living beings through physical and chemical modification of the environment. It is one of the ways which leads to soil pollution (Ghose, 2004; Haritash et al., 2006; Adewole and Adesina, 2011). Mining also leads to diminishing of essential nutrients and organic matter in soils and deters biological activity and biomass productivity (Pandey and Kumar, 1996; Saha and Padhy, 2011). Spurt in quarrying, mining and construction activities have resulted in more landslides, land slip and debris fall in hilly areas (Rao and Rao, 1990). Blasting increases the frequency of hazards due to vibration in the loose and fragile soil and earth surface (Kahriman et al., 2002; Folchi, 2003; Kuzu and Ergin, 2005; Kesimal et al., 2008). It also poses serious problems for human health and induces various diseases among mine workers and local residents (Donoghue, 2004, 2005; Semple et al., 2008; Tiwari et al., 2010; Yadav et al., 2011). Thus, the mining activities not only cause adverse impact on surrounding environment but also lead to deterioration in the quality of life of people (Naronha and Nairy, 2005; Mishra et al., 2008). However, it is important to elucidate that in spite of its contribution in environment and health related problems; mining for construction material significantly contributes to national revenues and plays a pivotal role in alleviating poverty (Venkataraman, 1995; Hegde et al., 2008; Govindaraj et al., 2013).

The negative impact of the extractive industry is well known and adequately documented, not only by conservation bodies and environmental activists but also by governments and the mining industry. Extraction of sand, silt, stone and clay resources has environmental impacts which were first reported in the developed world (Sonak et al. 2006; Kondolf 1994, 1997). But with the expansion of infrastructure in developing countries, concern about extraction induced environmental impacts has been raised increasingly world over (Mensah, 2002; Lu et al., 2007; Wu et al., 2007; Padmalal et al., 2008; Govindaraj et al., 2013). It has also been argued that globalization driven spurt in extraction of construction material has resulted in universalization of environmental degradation (Sonak et al 2006).

Objectives of the Study

In the present study an attempt has been made to present an overview of literature and an exhaustive list of studies pertaining to

extraction of construction material and its impacts on the geo-environmental and socio-economic conditions. The study brings out a detailed literature review and compilation of 721 references contributed by eminent scholars with different backgrounds. The cited references relate to various aspects of mining of construction material and their impacts on environment and society. The study is designed to provide information on nature of studies carried out world over on the theme geo-environmental and socio-economic impacts of mining of contruction material.

Methods of Accessing and Reviewing Literature

The studies on societal and environmental impacts of mining activity draw greater interest today than ever before. Large scale environmental degradation caused by extraction activities is now considered as a major factor seriously disturbing the natural eco-balance which is most essential for the survival of all types of living organisms on the earth surface (Pollin and Sinding, 1993). Keeping this in the view, reviews of literature on mining and associated activities and their impact on the environment and socio-economic conditions have been presented by several researchers since early nineties (Singh et al., 1991; Farmer, 1993; Bovenzi and Hulshof, 1999; Warhurst et al., 1999; Agrawal, 2000; Hnizdo and Vallyathan 2003, and Pavloudakis, 2013). These studies indicate that extractive industry related reviews are essential for providing inputs in environment and mining management and minimizing adverse effects of mining on geo-environmental and socio-economic conditions. In the present study an attempt has been made to present a review of the concerned literature compiled from scattered locations and different sources. There is only a limited literature available on the selected theme prior to 1990s. Hence, the literature reviewed in the present study pertains to the period 1990s onward.

The review is based on literature available through internet and manual library consultations from national and international database of peer-reviewed science journals, reports, monographs, newspapers and M.Sc, M.Phil and Ph.D dissertations. The resourceful libraries of reputed Indian universities, National Remote Sensing Centre, Hyderabad and Indian School of Mines, Dhanbad have been accessed to search the literature. During the manual consultation, the online data bases of these libraries/centers have also been used. Online data resources of UGC consortium for national and international journals and books at Jawaharlal Nehru Library, Kurukshetra University, Kurukshetrahave have been extensively consulted to obtain the concerned literature. Health related literature was accessed through PubMed, an international database of peer-reviewed scientific journals related to health, occupation and environment (http://www.ncbi.nlm.nih.gov/pubmed). Through these search methods more than 1000 full papers, reports and abstracts were retrieved and downloaded. Finally, on the basis of their relevance to the theme, 721 studies were selected for review. Themes-wise, these studies have been categorized into three major groups (I) Mining induced geo-environmental impacts, (II) Mining induced socio-economic impacts and (III) Innovation, technology and application of geospatial approach in studies on mining.

I. Mining Induced Geo-environmental Impacts

Mining of construction material creates vast stretches of derelict lands which are

technically areas of "no value" or to be more precise areas of "negative value" (Soni et al., 1992). It implies that the mining affected areas on one side lose ecological and socio-economic yields and on other side become a threat to the ecological and socio-economic stability in adjoining area. The mining operations have led to a number of environmental problems namely deforestation, removal of fertile top soil, unsuitable and unstable slopes prone to sliding and erosion, siltation of water bodies due to wash of mineral overburden dumps; air pollution due to discharge of dust, ground vibration caused by heavy blasting and finally the socio-economic status of local people (Fig.1).

In the past, mining particularly surface mining, has rendered vast stretches wastelands across the world. It is not only responsible for our declining biological productivity but also a threat to our ecological and socio-economical security. This section includes the studies related to geo-environmental impacts of extractive and processing industries. There is a long list of studies on this theme such as Chowdary et al., 1990; Erskine, 1990; Garg, 1990; Nath and Nath, 1990; Rajvanshi and Srivastava, 1990; Rao and Rao, 1990; Whitlow, 1990; Chandrasekaran and Ramkumar, 1991; Beckerman, 1992; Chaulya et al., 1992; Pant and Singh, 1992; Priester and Hentschel, 1992; Dhar and Mobin, 1993; Heath et al., 1993; Poulin and Sinding, 1993; Kondolf, 1994a; Poulin et al., 1994; Rai, 1994; Bruce, 1995; Goudies, 1995; Krishna, 1995; Pandey et al., 1995; Soni and Dube, 1995; Dissanayake and Rupasinghe, 1996; Jhanwar, 1996; Kumar, 1996; Pant and Kharkwal, 1996; Roy et al., 1996; Saritha et al., 1996; Murthy et al., 1997; Gaiero et al., 1998; Iwanoff, 1998; Kondolf, l998a; Meador and Layher, 1998; Boni et al., 1999; Maiti, 1999; Manaf, 1999; Ren and

Geo-Environmental Impacts of Mining

Fig. 1

Reddish, 1999; Verma, 1999; Willis and Garrod, 1999; Agarwal, 2000; Bell et al., 2000; Bridge and McManus, 2000; Harding et al., 2000; Kumar and Rawat, 2000; Kumar et al., 2000; Morgan, 2000; Rao et al., 2000; Singh and Rastogi, 2000; Sinha et al., 2000; Anoop, 2001; Iqbal and Shafig, 2001; Nnabo and Taiwo, 2; Halvorson, 2002; Ibrahim, 2002; Mensah, 2002; Merchant, 2002; Yadav, 2002; Ghose, 2003; Lapcik, 2003; Macfarlane and Mitchell, 2003; Sebastian, 2003; Sheeba and Arun, 2003; Sreeja et al., 2003; Ghose and Kumar, 2004; Martinec and Schejbalova, 2004; Sreekumar and Thomas, 2004; Steve, 2004; Wang, 2004; Xiaohong et al., 2004; Chatterji, 2005; ICN, 2005; Kuzu and Ergin, 2005; Lin et al., 2005; MPCB, 2005; Rinaldi et al., 2005; Singh, 2005; Vagholikar, 2005; Agarwal and Gupta, 2006; ICN, 2006; Kahriman et al., 2006; Kitula, 2006; Paull et al., 2006; Sonak et al., 2006; Sreebha and Padmalal, 2006; Aigbedon, and Iyayi, 2007; Bhadra et al., 2007; Connors, 2007; Maheshwari and Badola, 2007; Ranade, 2007; Celik and Sabah, 2008; Hegde et al., 2008; Jordan et al., 2008; Kesimal et al., 2008; Lobo, 2008; Marh and Pathania, 2008; Padmalal et al., 2008; Van-Kruchten, 2008; Woldai and Taranik, 2008; Chaurasia et al., 2009; Chi and Hoa, 2009; Ghosh, 2009 ; Koul, 2009; Monjezi et al., 2009; Musah and Barkarson, 2009; My and Hoa, 2009; Pal, 2009; Yadav et al., 2009; Yadav and Sengupta, 2009; Zhou et al., 2009; Chatterjee, 2010; Chauhan, 2010; Chevrel et al., 2010; Obeng, 2010; Singh and Sood, 2011; Sreebha and Padmalal, 2011; Thakur, 2011; Dasgupta et al., 2012; Gutti, et al., 2012; Zhang et al., 2012; Hussain, 2013; Pavloudakis, 2013; White, 2013. Studies on this major theme are further sub-divided into following sub-themes:

(i) Mining and Water Resources

Impacts of extractive industry on water resources can be classified as (a) Groundwater Resources and (b) Surface Water Resources.

(a) **Mining and Groundwater Resources** (water quantity and quality)

Pandey et al., 1995; Apaydin et al., 1996; Sengupta, 1997; Antonopoulos and Wyseure, 1998; Mas-Pla et al., 1999; Chatterjee et al., 2000; Dasgupta and Purohit, 2001a; Dasgupta and Purohit, 2001b; Dasgupta and Purohit, 2001c; Rice et al., 2001; Blodgett and Kuipers, 2002; Arun et al., 2003; Limaye, 2003; Choudri and Chachadi, 2006; Cooper et al., 2006; Obiekezie et al., 2006; Rao, 2006; Sonak et al., 2006; Adnani, et al., 2007; Ardejani et al., 2007; Naik et al., 2007a; Navarro and Carbonel, 2007; Lai-gui et al., 2008; Rizzo et al., 2008; Selvakumar et al., 2008; Dash, 2009; Dogaru et al., 2009; Nair, 2009; NEERI, 2009; Peckenham et al., 2009; Sudhakar, 2009b; Anonymous, 2010d; Maheshwari and Intodia, 2010; Apaydm, 2012; Aromolaran, 2012.

(b) **Mining and Surface Water Resources** (water quantity, river ecosystem, river geomorphology, channel degradation, channel incisions, channel adjustment, river pollution, sediment supply, bed load transport, river dredging and channel dynamics, acid mine drainage, geomorphic effects, coastal environment, marine and off-shore, hydro-chemical, hydro-geological, flood control and wet lands)

Anonymous, I985; Kondolf, l998a; Anctil and Quellet, 1990; Benke, 1990; Erskine, 1990; O'flynn, 1990; Collins, 1991; Brown and Lyttle, 1992; Jinxiu et al., 1992; Kanehl and Lyons, 1992; Kondolf, 1993; Kondolf and Swanson, 1993; Kwan and Abbey, 1993; Poulin et al., 1994; Sivakumar et al., 1994; Kondolf, 1994a; Kondolf, 1994b; Collins, 1995; Mohan, 1995; Zhou, 1995; Kondolf and Larson, 1995; Petit et al., 1996;

Saritha et al., 1996; Dunn, 1997; Hartfield, 1997; Jacobson, 1997; Mossa and McLean, 1997; Paul, 1997; Yuan and Chenkang, 1997; Kitetu and Rowan, 1997; Kondolf, 1997; Li and Chen, 1997; Peiffer et al., 1997; Singh et al., 1997; Brown et al., 1998; Florsheim et al., 1998; Harvey and Smith. 1998; Meador and Layher, 1998; Mossa and Autin, 1998; Sear and Archer, 1998; Kondolf, 1998b; Decker et al., 1999; Gaillot and Piegay, 1999; Willis and Garrod, 1999; Zhangren et al., 1999; Bayley and Baker, 2000; Erskine and Green, 2000; Nnabo and Taiwo, 2001; Charlier, 2002; Drew et al., 2002; Femmer, 2002; Healey and Wo, 2002; Pandey et al., 2002; Sainz et al., 2002; Williams et al., 2002; Kondolf et al., 2002; Yang et al., 2002; Farrant et al., 2003; Marston et al., 2003; Sheeba and Arun, 2003; Sreeja et al., 2003; Weeks et al., 2003; Macfarlane and Mitchell, 2003; Padmalal et al., 2003; Byrnes et al., 2004; Kumar and John, 2004; Lopez, 2004; Maa et al., 2004; Mao and Huang, 2004; Sreekumar and Thomas, 2004; Carey et al., 2005; Gob et al., 2005; Hallberg and Johnson, 2005; Hemalatha et al., 2005; Rinaldi et al., 2005; Rovira et al., 2005; Simonini et al., 2005; Kim, 2005; Lin et al., 2005; Silva et al., 2005; Chen et al., 2006; Mitchell, 2006; Sebastian, 2006; Sreebha and Padmalal, 2006; Sreekumar and Thomas, 2006; Padmalal, 2006; Cidu, 2007; Garcia et al., 2007; Hanamgond, 2007; HARSAC, 2007; Jia and Luo, 2007; Kumar and Gopalan, 2007; Liangwen et al., 2007; Lu et al., 2007; Marquez et al., 2007; Soni, 2007; Warhate et al., 2007; Chunmel et al., 2008; Erskine, 2008; Maheshwari, 2008; Padmalal et al., 2008; Charya, 2009; Jacob and Lala, 2009; Naydenova and Roumenina, 2009; Yadav et al., 2009; Arivanantham, 2010; Bagchi, 2010; Charou et al., 2010; Pathania et al., 2010; Leeuw et al., 2010b; Nair, 2010a; Nair, 2010b; Ashraf et al., 2011; Lawal, 2011; Naja et al., 2011; Sreebha and Padmalal, 2011; Anonymous, 2012; Tamang, 2013.

(ii) Mining and Air Pollution

Chowdary et al., 1990; Pandey and Simba, 1990; Prasad and Inamdar, 1990; Chatter, 1991; Gunamani and Arjunan, 1991; Prasad and Inamdar, 1991; Prasad et al., 1991; Rao, 1991; Sharma and Sharma, 1991; Aslam et al., 1992; Saralabai and Vivekanandan, 1992; Sifakis and Deschamps, 1992; Farmer, 1993; Mishra et al., 1993; Satao et al., 1993; Pandey and Nand, 1995; Saralabai and Vivekanandan, 1995; Trivedi and Singh, 1995; Wahid et al., 1995a; Wahid et al., 1995b; Pandey and Kumar, 1996; Uma and Rao, 1996; Liu et al., 1997; CMRI, 1997; Pandey et al., 1999; Somashekar et al., 1999; Agrawal, 2000; Landfield and Karra, 2000; Singh, 2000; Banerjee et al., 2001; Chaulya et al., 2001; Rego et al., 2001; Salami et al., 2002; Howel et al., 2003; Kissell and Chekan, 2003; Mishra et al., 2003; Pandey et al., 2003; Organiscak and Reed, 2004; Rajlakshmi, 2004; Pandey et al., 2005; Naik et al., 2007b; Green et al., 2008; Raina et al., 2008; Chaurasia et al., 2009; Chudnovsky et al., 2009; Sivacoumar et al., 2009; Ahmed et al., 2010; Nanda et al., 2010; Raajasubramanian et al., 2011; Saha and Padhy, 2011; Saini et al., 2011; Padhy, 2013.

(iii) Mining and Noise Pollution (blasting, fly stone)

Felice, 1993; Singh, 1993; Johnston and Durucan, 1994; Jimeno et al., 1995; Mukhopadhyay and Dey, 1998; Chatterjee et al., 2000; Kahriman et al., 2002; Folchi, 2003; Tuncer et al., 2003; Kahriman et al., 2004; Kahriman et al., 2005; Kecojevic and Radomsky, 2005; Kesimal et al., 2005a; Kuzu and Ergin, 2005; MPCB, 2005; Kahriman et al., 2006; Kahriman et al., 2006; Kecojevic et al.,

2006; Kesimal et al., 2008; Ozer et al., 2008; Maheshwari, 2008; Fisne et al., 2011; Khandelwal, 2011.

(iv) Mining Impacts on Forest and Wildlife

Rao, 1991; Sharma and Sharma, 1991; Kanehl and Lyons, 1992; Farmer, 1993; Heath et al., 1993; Mishra et al., 1993; Dixon and Hambler, 1993; Saralabai and Vivekanandan, 1995; Trivedi and Singh, 1995; Nieman and Tamerkin, 1995; Uma and Rao, 1996; Charya, 2009; Decker et al., 1999; Somashekar et al., 1999; Harding et al., 2000; Morgan, 2000; Pant et al., 2000; Rao et al., 2000; Iqbal and Shafig, 2001; Nnabo and Taiwo, 2001; Conrad et al., 2002; Mahajan and Kohli, 2002; Rao and Tak, 2002; Salami et al., 2002; Sanderson et al., 2002; Marston et al., 2003; Padmalal et al., 2003; Sheeba and Arun, 2003; Byrnes et al., 2004; Simonini et al., 2005; Arun et al., 2006;Padmalal, 2006; Ronnie, 2006; Chattopadhyay, 2007; Kuecker, 2007; Naik et al., 2007b; Badola, 2008; Ahuja, 2009; Koul, 2009; Kuemmerle et al., 2009; Liu et al., 2009; Shank, 2009; Zhou et al., 2009; Dash and Chowdhury, 2010; Mahapatra, 2010; Singh, 2010; Anonymous, 2010e; Anonymous, 2010c; Moudgil, 2011; Saha and Padhy, 2011; Saini et al., 2011; Moudgil, 2011; Padhy, 2013.

(v) Mining and Land Degradation (aesthetic and physical changes)

Bradshaw, 1990; Rao and Rao, 1990; Chowdary et al., 1990; Chandrasekaran and Ramkumar, 1991; Soni et al., 1992; Priester and Hentschel, 1992; Rai, 1994; Soni and Dube, 1995; Kumar, 1996; CMRI, 1997; Wright and Stow, 1999; Morgan, 2000; Kumar and Rawat, 2000; Mukhopadhyay and Sinha, 2002; Pandey et al., 2002; Viswanath, 2002; Nawaz et al., 2003; Soni and Loveson, 2003; Lapcik, 2003; Meulen et al., 2004; Steve, 2004; Hemalatha et al., 2005; Batty, 2005; Choudri and Chachadi, 2006; Kaliampakos and Mavrikos, 2006; Agarwal and Gupta, 2006; Berhe, 2007; Maheshwari and Badola, 2007; Connors, 2007; Shareef, 2007; Maheshwari and Badola, 2007; Badola, 2008; Maheshwari, 2008; Pal, 2009; Musah and Barkarson, 2009; Maheshwari and Intodia, 2010; Chauhan, 2010; Singh and Sood, 2011.

(vi) Mining and Agriculture

Pandey and Simba, 1990; Prasad and Inamdar, 1990; Chatter, 1991; Prasad and Inamdar, 1991; Prasad et al., 1991; Rao, 1991; Chandrasekaran and Ramkumar, 1991; Saralabai and Vivekanandan, 1992; Soni et al., 1992; Davis et al., 1993; Satao et al., 1993; Darmody, 1995; Pandey and Nand, 1995; Wahid et al., 1995a; Wahid et al., 1995b; Soni and Dube, 1995; Darmody, 1995; Alexander, 1996; Pandey and Kumar, 1996; Jhanwar, 1996; Kumar, 1996; Liu et al., 1997; Dunn, 1997; Pandey et al., 1999; Ravikumar et al., 2000; Singh, 2000; Hemalatha, 2003; Kandrika and Dwivedi, 2003; Pandey et al., 2003; Lapcik, 2003; Sebastian, 2003; Ghose, 2004; Sreekumar and Thomas, 2004; Hemalatha et al., 2005; Lin et al., 2005; Pandey et al., 2005; Silva et al., 2005; Rao, 2006; Agarwal and Gupta, 2006; Sebastian, 2006; Hareef, 2007; Naik et al., 2007b; Singh et al., 2007; Shareef, 2007; Maheshwari and Badola, 2007; Hegde et al., 2008; Padmalal et al., 2008; Raina et al., 2008; Selvakumar et al., 2008; Rizzo et al., 2008; Maheshwari, 2008; Selvakumar et al., 2008; Govindaraj et al., 2009; Hatsingimari, 2009; Musah and Barkarson, 2009; Govindaraj et al., 2009; Jacob and Lala, 2009; Songara and Rai, 2009; Pal, 2009; Onwuchekwa et al., 2009; Charou et al., 2010; Pathania et al., 2010; Maheshwari and Intodia, 2010; Raajasubramanian et al., 2011; Saha and Padhy,

2011; Aromolaran, 2012; Govindaraj et al., 2013; Padhy, 2013.

(vii) Mining and Soil Health (soil erosion)
Asubiojo et al., 1991; Soni et al., 1992; Alexander, 1996; Dissanayake and Rupasinghe, 1996; Hartfield, 1997; Liu et al., 1997; Peiffer et al., 1997; Yuan and Chenkang, 1997; Antonopoulos and Wyseure, 1998; Meador and Layher, 1998; Gaillot and Piegay, 1999; Maiti, 1999; Kumar and Rawat, 2000;Loch, 2000; Ravikumar et al., 2000; Desiderius, 2002; Femmer, 2002; Masalu, 2002; Williams et al., 2002; Hemalatha, 2003; Kandrika and Dwivedi, 2003; Weeks et al., 2003; Ghose, 2004; Graham and Haynes, 2004; Lopez, 2004; Bowen et al., 2005; Fulton and Wells, 2005; Agarwal and Gupta, 2006; Haritash et al., 2006; Hemalatha et al., 2005;Ibanga et al., 2005; MPCB, 2005; Pandey et al., 2005; Silva et al., 2005; Rao, 2006; Sinnett et al., 2006; Yuan et al., 2006; Hareef, 2007; Warhate et al., 2007; Abakumov, 2008; Burke, 2008; Hegde et al., 2008; Padmalal et al., 2008; Rizzo et al., 2008; Musah and Barkarson, 2009; Onwuchekwa et al., 2009; Pal, 2009; Songara and Rai, 2009; Pathania et al., 2010; Adewole and Adesina, 2011; Ozturkmen and Kavdir, 2012;Tamang, 2013.

(viii) Mining and Danger/Safety (landslide, vibration, slope instability)
Thomas and Clarke, 1992; Johnston and Durucan, 1994; Dasgupta and Harrison, 1996; Dhar, 1996; Wasserman et al., 1997; Ahuja, 1997; Bovenzi and Hulshof, 1999; Schiffbauer, 1999; Kahriman et al., 2002; Viswanath, 2002; Tuncer et al., 2003; Kahriman et al., 2004; Joy, 2004; Kesimal et al., 2005; Kecojevic and Radomsky, 2005; Kesimal et al., 2005b; Kahriman et al., 2006; Mandal and Srivastava, 2006; Ozer et al., 2008; Suwa et al., 2008; Foster et al., 2008; Kesimal et al., 2008; Anonymous, 2009b; Badenhorst, 2009; Anonymous, 2010b; Monforton and Windsor, 2010; Khandelwal, 2011.

(ix) Mining and Land Management (sustainability analysis, optimization, alternative use, waste management, sustainable development)
Campbell, 1992; Dhar, 1994; Kondolf, 1994b; Nieman and Tamerkin, 1995; Stern, 1995; Csoke et al., 1996; Hudson, 1996a; Hudson, 1996b; Rao, 1996; Chaulya, 1997; Dhar, 1997; Kitetu and Rowan, 1997; Fasihuddin, 1998; Hudson, 1998; Kondolf, 1998b; Cowell et al., 1999; Hart et al., 1999; Wernstedt and Cumming, 1999; Bose, 2000; Flynn, 2000; Landfield and Karra, 2000; O'flynn, 2000; Peiter et al., 2000; Chaulya et al., 2001; Maponga and Munyanduri, 2001; Patil, 2001; Wilson, 2002; Ghose, 2003; Harrison and Steadman, 2003; Kissell and Chekan, 2003; Kumar et al., 2003; Rao and Sapare, 2003; Vijayalakshmi et al., 2003; Kartam et al., 2004; Kumar et al., 2004; Monteiro et al., 2004; Singh et al., 2004; Batty, 2005; Deshpande and Shekdar, 2005; Jena et al., 2005; Menezes et al., 2005; Amin and Shwarby, 2006; Chen et al., 2006; IUCN, 2006; Jayawardhane and Dissanayake, 2006; Katz, 2006; Almeida et al., 2007; Ghose and Roy, 2007; Mbamali, 2007; Mukhopadhyay et al., 2007; Saboya et al., 2007; Shareef, 2007; Bhushan and Hazra, 2008; Ghose, 2008; Gottesfeld et al., 2008; Ilangovana et al., 2008; Lamelas et al., 2008; Deelgado et al., 2009; Hameed and Sekar, 2009; Sivacoumar et al., 2009; Torres et al., 2009; Ahmed et al., 2010a; Ahmed et al., 2010b; Corinaldesi et al., 2010; Ilyas and Rasheed, 2010; Nanda et al., 2010; Hamza et al., 2011; Jha et al., 2012; Koruyan et al., 2012; Tamang, 2013.

(x) Mining and Rehabilitation (reclamation, restoration and re-vegetation)

Bradshaw, 1990; Jha and Singh, 1991; Campbell, 1992; White et al., 1992; Davis et al., 1993; Dixon and Hambler, 1993; Gardiner, 1993; Gunn and Bailey, 1993; Kondolf, 1993; Gorsira and Risenhoover, 1994; Skousen et al., 1994; Daily, 1995; Hambler et al., 1995; Jha et al., 1995; Kondolf and Larson, 1995; Cloke et al., 1996; Bradshaw, 1997; Dobson et al., 1997; Ursic et al., 1997; Wheater and Cullen, 1997; Cullen et al., 1998; Dadhwal et al., 1998; Kaliampakos, 1998; Fierro et al., 1999; Sharma et al., 1999; Chaulya et al., 2000; Leavitt et al., 2000; Loch, 2000; Panwar and Bhardwaj, 2000; Rao et al., 2000; Sharma et al., 2000; Wheater et al., 2000; Guebert and Gardner, 2001; Hobbs and Harris, 2001; Holmes, 2001; Jim, 2001; Uniyal, 2001; Wang et al., 2001; Conrad et al., 2002; Grant et al., 2002; Ingold, 2002; Mukhopadhyay and Sinha, 2002; Pinto et al., 2002; Rao and Tak, 2002; Walker, 2002; Frenedozo-Soave, 2003; Hall et al., 2003; Hartmann and Keplin, 2003; Khater et al., 2003; MacDonald et al., 2003; Novak and Prach, 2003; Chamblin et al., 2004; Graham and Haynes, 2004; Moreno-Penaranda at al., 2004; Bowen et al., 2005; Cummings et al., 2005; Fulton and Wells, 2005; Huxtable et al., 2005; Ibarra and de-las-Heras, 2005; Jason et al., 2005; Owen et al., 2005; Rowe et al., 2005; Walker, 2005; Wilcox et al., 2005; Caruso, 2006; Kaliampakos and Mavrikos, 2006; Sinnett et al., 2006; Thompson and McKinney, 2006; Yuan et al., 2006;Almendro-Candel et al., 2007; Dean et al., 2007; Pereira et al., 2007; Ashmole and Motloung, 2008; Duan et al., 2008; Grandlic et al., 2008; Jordan et al., 2008; Mendez and Maier, 2008; Shrestha and Lal, 2008; Sheoran, and Sheoran, 2009; Sinclair et al., 2009; Townsend et al., 2009; Chowdhury, 2010.

(xi) Mining Products Demand and Environmental Clearance

Singh et al., 1991; Tepordei, 1995; Venkataraman, 1995; Thornton, 1996; Kurz, 1997; Doublet, 1998; Nelles, 1998; Martin, 1999; Wernstedt and Cumming, 1999; Florea and Fodor, 2000; Suri, 2000; William and Wilson, 2002; Kecojevic et al., 2004; Rao, 2004; Bauer and Ziaran, 2005; Groninger et al., 2006; Jeong, 2006; Katz, 2006; Audu and Muhammad, 2007; Degryes, 2007; Mutluturk, 2007; Ashmole and Motloung, 2008; Deb et al., 2008; David, 2010; Pathania et al., 2010.

II. Mining Induced Socio-economic Impacts

In spite of its share in environment and health related problems that adversely impact human quality of life, small scale mining plays a significant role in alleviating poverty in the developing countries and contributes significantly to national revenues and foreign exchange (Venkataraman, 1995). The mining activities connected with allied industries and trades of the excavated material have contributed in several ways to the economy of the regions. To cater the needs mine workers the surrounding settlements supply items of daily use as well as opened tea stalls and shops. This has helped in the improvement of the cash economy of the surrounding areas. The studies related to the impact of mining on the socio-economic condition of the people are further grouped as under:

(i) Socio-cultural Impacts of Mining (violation, social-justice, harassment, threat to livelihood, quality of life)

Rao and Rao, 1990; Mendelsohn, 1991; Kanjilal, 1992; Priester and Hentschel, 1992; Poulin and Sinding, 1993; Collins, 1995; Manjeet, 1995; Venkataraman, 1995; Clark, 1996; Labonne, 1996; Ostenson, 1996; Thornton, 1996; Kurz, 1997; Iwanoff, 1998;

Doublet, 1998; Myers, 1999; Warhurst et al., 1999; Jiefeng and Liu, 2000; Kumar et al., 2000; Rao et al., 2000; Naronha, 2001; Veiga et al., 2001; Wilson, 2001; Maponga and Munyanduri, 2001; Desiderius, 2002; Halvorson, 2002 ; Hilson, 2002; Labonne, 2002; Masalu, 2002; Wilson, 2002; Yadav, 2002; Dutt, 2003; Macfarlane and Mitchell, 2003; Brereton and Forbes, 2004; Ghose, 2004; Kecojevic et al., 2004; Rao, 2004; Chatterji, 2005; ICN, 2005; Naronha and Nairy, 2005; Vagholikar, 2005; Hemalatha et al., 2005; Kuzu and Ergin, 2005; Bauer and Ziaran, 2005; Ahmad and Dutt, 2006; Dutt, 2006; Kitula, 2006; Sebastian, 2006; Kaliampakos and Mavrikos, 2006; Ghose and Roy, 2007; Naik et al., 2007b; Garcia et al., 2007; Bhushan and Hazra, 2008; Mishra et al., 2008; Nasab and Mahesh, 2008; Selvakumar et al., 2008; Yirenkyi, 2008; Biswas and Bagchi, 2009; Dash, 2009a, 2009b, 2009c; Dogaru et al., 2009; Dutt, 2009; Ghose and Dash, 2009; Govindaraj et al., 2009; Jacob and Lala, 2009; Madikeri, 2009; Musah and Barkarson, 2009; Pal, 2009; Sukanya, 2009; Anonymous, 2010a; Anonymous. 2010f; Chatterjee, 2010; Dash and Chowdhury, 2010; Deshpande, 2010; Gupta, 2010; Kadekodi, 2010; Kunwar, 2010; Mahapatra, 2010; Mohan, 2010; Obeng, 2010; Patil, 2010; Suryawanshi, 2011; Abdulali, 2012; Dasgupta et al., 2012; Owen and Kemp, 2013; Pavloudakis, 2013; White, 2013.

(ii) Mining and Economy

Beckerman, 1992; Kanjilal, 1992; Poulin and Sinding, 1993; Dorian and Humphreys, 1994; Campbell and Clapp, 1995; Emefurieta and Ekuajemi, 1995; Labonne, 1996; Warhurst et al., 1999; Anoop, 2001; Kahn et al., 2001; Naronha, 2001; Nnabo and Taiwo, 2001; Freudenburg and Wilson, 2002; Hilson, 2002; Labonne, 2002; Masalu, 2002; William and Wilson, 2002; Wilson, 2002; Hemalatha, 2003; Belgaumkar, 2005; Chatterji, 2005; Hemalatha et al., 2005; Vagholikar, 2005; Kitula, 2006; Hareef, 2007; Hegde et al., 2008; Selvakumar et al., 2008; Yirenkyi, 2008; Chowdhury, 2009; Kuemmerle et al., 2009; Markuna, 2009; Sudhakar, 2009a; Kadekodi, 2010; Obeng, 2010; Singh and Sood, 2011; Thakur, 2011; Govindaraj et al., 2013.

(iii) Mining and Health (occupational health, injuries, noise induced hearing loss, fatal and non-fatal impacts)

Balmes, 1990; Mehnert et al., 1990; Swami and Malik, 1990; Graham et al., 1991; Ng and Chan, 1992; Priester and Hentschel, 1992; Thomas and Clarke, 1992; Bernaldo et al., 1993; Hansen, 1993; Malmberg et al., 1993; Graham et al., 1994; Love et al., 1994; Swami et al., 1994; Abou-Taleb et al., 1995; Costello et al., 1995; Ghotkar et al., 1995;Kullman et al., 1995;Manjeet, 1995; Sullivan et al., 1995; Franks, 1996; Mathur, 1996; Yang et al., 1996; Abudhaise et al., 1997; Greskevitck et al., 1997; Nicieza et al., 1997; Wasserman et al., 1997; Bang and Suhr, 1998; Friis et al., 1998; Swami and Malik, 1998; Alvear, 1999; Checkoway et al., 1999; Ulm et al., 1999; Love et al., 1999; Finkelstein, 2000; Shukla, 2000; Greaves, 2000; Jennings, 2000; Lutman and Hall, 2000; NIOSH, 2000; Al-Neaimi et al., 2001; Churchyard and Corbett, 2001; Pyatt and Grattan, 2001; Rego et al., 2001; Steenland and Sanderson, 2001; Hughes et al., 2001; Meijer et al., 2001; Naronha, 2001; Das and Nandi, 2002; DMRC, 2002; Ulm, 2002; Halvorson, 2002; Laraqui et al., 2002; Wong, 2002; Buchanan et al., 2003; Nij et al., 2003; Suhr et al., 2003; Hemalatha, 2003; Hnizdo and Vallyathan, 2003; Howel et al., 2003; Jarvholm and Silverman, 2003; Donoghue, 2004; Rajlakshmi, 2004; Ross and Murray, 2004;

Gerein et al., 2004; Kecojevic et al., 2004; Mcbride, 2004; McPhee, 2004; Tiwari et al., 2004; Ulm et al., 2004; Campbell et al., 2005; Donoghue, 2005; Eweje, 2005; Steenland, 2005; Tiwari et al., 2005; Kecojevic and Radomsky, 2005; Mathur, 2005; Akgun et al., 2006; COEH, 2006; Singh et al., 2006; Kecojevic et al., 2006; Mandal and Srivastava, 2006; Reddy et al., 2007; Singh et al., 2007; Suarthana et al., 2007; Kulkarni, 2007; Miller and Soutar, 2007; Tiwari et al., 2007; Ademola, et al., 2008; Bahrami et al., 2008; Baviskar, 2008; Semple et al., 2008; Green et al., 2008; Badenhorst, 2009; Brown, 2009; Singh et al., 2009; Webber-Youngman and vanWyk, 2009; Gangopadhyay and Chattopadhya, 2009; Yadav and Sengupta, 2009; Tiwari et al., 2010; Gurung, 2010; Ilyas and Rasheed, 2010; Kadekodi, 2010; Kant et al., 2010; Monforton and Windsor, 2010; Yadav et al., 2011.

(iv) Mining and Infrastructure (damage and access to infrastructure)

Labonne, 1996; Dunn, 1997; Kurz, 1997; Meador and Layher, 1998; Wernstedt and Cumming, 1999; Sinha et al., 2000; Morgan, 2000; Maponga and Munyanduri, 2001; Patil, 2001; Viswanath, 2002; Femmer, 2002; Padmalal et al., 2003; Lapcik, 2003; Steve, 2004; Hemalatha et al., 2005; Bauer and Ziaran, 2005; Rovira et al., 2005; Arun et al., 2006; Padmalal, 2006; Rao, 2006; Maheshwari and Badola, 2007; Mishra et al., 2008; Anonymous, 2009a; Govindaraj et al., 2009; Leeuw et al., 2010b; Bagchi, 2010.

III. Innovation, Technology and Application of Geospatial Approach in Studies on Mining

The geospatial technology can play an important role in environmental monitoring and reclamation of mining affected areas. The satellite monitoring and geo-ecological mapping is an effective and highly economical method for environmental and ecological impact studies. A number of recently published papers have demonstrated the usefulness of monitoring the environmental impact of mining using various geospatial methods. A few worth mentioning are:

(i) Mining and Geospatial Approach (remote sensing, GIS, and modelling)

Chanda, 1990; Mirnova, 1990; Anctil and Quellet, 1990; Rao and Rao, 1990; Bradshaw, 1990; Chowdary et al., 1990; Pant and Singh, 1992; Sifakis and Deschamps, 1992; Soni et al., 1992; Elroi, 1993; Johnston and Durucan, 1994; Darmody, 1995; Pandey et al., 1995; Csoke et al., 1996; Jhanwar, 1996; Kojovic, 1996; Sharma et al., 1996; CMRI, 1997; Murthy et al., 1997; Sengupta, 1997; Costa, 1999; Ferrier, 1999; Ren and Reddish, 1999; Schiffbauer, 1999; Wright and Stow, 1999; Crosta and deSouza, 2000; Liu et al., 2000; Marsh, 2000; Pant et al., 2000; Kumar and Rawat, 2000; Pinto et al., 2002; Santo and Sanchez, 2002; Singh and Chauhan, 2002; Kandrika and Dwivedi, 2003; Limpitlaw, 2003; Mars and Crowley, 2003; Basu and Kumar, 2004; Cutaia et al., 2004; Matias et al., 2004; Xiaohong et al., 2004; Crosta and deSouza, 2005; Kahriman et al., 2005; Amin and Shwarby, 2006; Hancock and Turley, 2006; Lau et al., 2006; Paull et al., 2006; Agarwal and Gupta, 2006; Ge et al., 2007; HARSAC, 2007; Ranade, 2007; Naik et al., 2007a; Maheshwari and Badola, 2007; Celik and Sabah, 2008; Chevrel et al., 2008; Nasab and Mahesh, 2008; Ololade et al., 2008; Raghavswamy et al., 2008; Woldai and Taranik, 2008; Chudnovsky et al., 2009; Liu et al., 2009; Naydenova and Roumenina, 2009; Shank, 2009; Webber-Youngman, and vanWyk, 2009; Gangopadhyay and Chattopadhya, 2009; Sivacoumar et al.,

2009; Charou et al., 2010; Chevrel et al., 2010; Leeuw et al., 2010a; Maheshwari and Intodia, 2010; Fisne et al., 2011; Khandelwal, 2011; Jha et al., 2012; Koruyan et al., 2012; Zhang et al., 2012; Tamang, 2013.

(ii) Mining and change in land use/ land cover

Pant and Singh, 1992; Sharma et al., 1996; Dunn, 1997; Mossa and McLean, 1997; Andronikos et al., 1998; Gaillot and Piegay, 1999; Morgan, 2000; Pant et al., 2000; Marston et al., 2003; Meulen et al., 2004; Latifovic et al., 2005; Choudri and Chachadi, 2006; Kaliampakos and Mavrikos, 2006; Ranade, 2007; Dean et al., 2007; Maheshwari and Badola, 2007; Raghavswamy et al., 2008; Sheoran et al., 2008; Shrestha and Lal, 2008; Hatsingimari, 2009; Govindaraj et al., 2009; Chitade and Katyar, 2010; Kangalawe, 2010; Pathania et al., 2010.

Sum Up

Mining has been an important economic activity in almost all human civilizations. It is a mode of natural resource exploitation that modifies the environment extensively. The mining for construction material has a considerable impact on the parameters of physical, biological and cultural environment. This is manifested in deteriorating quality of air and water, loss of biodiversity and destruction of the biological potential of land, destruction of ecosystem, displacement of people etc.

There are various studies which bring out that mining of construction material has adverse effects on environment. Land degradation, large scale denudation of forest cover and depletion of biodiversity, pollution of air, water and soil, degradation of agricultural land, change in drainage and soil conditions are some of the serious environmental implications of the extractive activities while waste disposal has parallel effects which may cause pollution problems elsewhere.

- The studies show that dust is emitted in the atmosphere by mining of construction material from open pits, crushing and grinding operations. Workers and communities living in the vicinity of mines are affected by increase of concentration of dust in the atmosphere. In addition, particle fall-out around mine sites also contaminates soils and water on one hand and damages vegetation cover on the other.
- Studies reveal that excavations also influence the hydrology around the mining sites. It leads to rapid seepage of water, rendering nearby streams or wells dry. Similarly, the action of rainwater on piles of mining waste transfers pollutants to freshwater supplies. Furthermore, mine wastewater contains large amounts of suspended solids from waste material and these solids can affect aquatic flora and fauna and physically choke local waterways.
- There are many studies relating to mining blasts induced ground vibrations and slope failure. It is a serious problem in the mining industry and causes severe damage to nearby structures and plants.
- Few studies have also discussed the positive impacts of mining on local communities. Mining remains an important industrial sector in many parts of the world. It has been observed that mining is a useful economic pursuit of local communities which broadly contributes in poverty alleviation.
- There is a large amount of literature which reveals that mining remains as one of the most difficult, dirty and

hazardous occupation causing more fatalities than other occupations even in the developed countries of the world. It is responsible for physical, chemical, biological, ergonomic and psycho-social occupational health hazard.

- In the peer-reviewed literature there are many studies on occupational health in the mining sector. The bulk of the literature discusses health and safety in the mines and at the stage of extraction of mineral. The respiratory diseases are found to be the most problematic occupational health hazard.
- The debate on the impact of the mining sector on worker and community health is polarized. On the one hand the industry tends to highlight the benefits of the mining sector, whilst on the other, community groups and NGOs disclose that the sector is detrimental to community health and sustainable development.
- A number of studies have demonstrated the usefulness of new technologies for monitoring the geo-environmental impact of mining. The use of Remote Sensing and GIS in mineral extraction studies has rapidly increased. These studies prove that the satellite monitoring and geo-ecological mapping is highly economical method for studying environmental impacts of mining.

Missing Gaps and Areas of Future Research Investigation

Mining of construction material is a very important development activity in modern day world. It is evident from the review of literature that there are numerous studies on the theme geo-environmental and socio-economic impacts of mining of construction material. But there are very few studies that have been carried out with a perspective of sustainable development of mining and construction material. The research on environmental impact assessment of mining of construction material needs to be oriented towards overall sustainable development of resources.

The profound significance of the socio-economic impact assessments and social planning studies in mining operations is another theme that is missing from available literature. There are not many studies on determinants of gender bias in participation of women in mining activities and exclusion of other marginalized groups from mining process. The studies on these issues would form crucial input in policy making.

The linkages between ecology, socio-cultural conditions, human health and safety with special reference to the changes induced in natural environment by mining activities are other relevant areas of research. There is a need for in-depth long-term evaluation of the impacts of mining on health of workers and local communities.

There is also an urgent need for use of innovative geospatial research technology such as virtual mapping and equipment operational simulation for comprehensive evaluation and monitoring of mining activities and their impacts on bio-physical and cultural environment.

References

Abakumov, E.V. 2008. Accumulation and transformation of organic matter in different-aged dumps from sand quarries. *Eurasian Soil Science*, 41: 844-851.

Abdulali, L. 2012. The link between politicians and sand mining in and around Mumbai. http://www.awaaz.org/Awaaz_Foundation/Sand_dredging/Entries/2012/10/4_the_link_between_politicians_and_sand_minin_gin_and_around_Mumbai_by_Laika_Abdulali.html. Accessed on Nov. 19, 2012.

Abou-Taleb, A.N., Musaiger, A.O. and Abdelmoneim, R.B. 1995.Health status of cement workers in the United Arab Emirates. *Journal of the Royal Society of Health*, 115:378-381.

Abudhaise, B.A., Rabi, A.Z., alZwairy, M.A., elHader, A.F. and elQaderi, S. 1997. Pulmonary manifestations in cement workers in Jordan. *International Journal of Occupational Medicine and Environmental Health*, 10: 417-428.

Ademola, A.K., Hammed, O.S. and Adejumobi, C.A. 2008.Radioactivity and dose assessment of marble samples from Igbeti mines, Nigeria. *Radiation Protection Dosimetry*, 132(1): 94-99.

Adewole, M.B. and Adesina, M.A. 2011. Impact of marble mining on soil properties in a part of Guinea Savanna zone of Southwestern Nigeria. *Ethiopian Journal of Environmental Studies and Management*, 4(2): 1-8.

Adnani, E.L.M., Boughrous, A.A., Khebiza, M.Y., El-Gharmali, A., Sbai, M.L., Errouane, A.S., Idrissi, L.L. and Nejmeddine, A. 2007. Impact of mining wastes on the physicochemical and biological characteristics of groundwater in a mining area in Marrakech (Morocco). *Environmental Technology*, 28(1): 71-82.

Agarwal, L.C. and Gupta, A.K. 2006. Environmental impacts of Kota stone mining (a case study of Ramganjmandi tehsil, District Kota (Rajastan). *Annals of the Rajasthan Geographical Association*, 28: 49-54.

Agarwal, S.C. 2000. Environmental protection by management of waste in Kotah stone mining, In *Earth Resources and Environmental Issues*, eds., Sinha A.K. and Srivastva, P., ABD Publishers, Jaipur, India: 119-128.

Agrawal, M. 2000. Researches on air pollution effects on vegetation in India: a review. *The Botanica*, 50: 75-83.

Ahmad, N. and Dutt, K.L. 2006.Engendering mining communities. *Gender, Technology and Development*, 10(3): 313-339.

Ahmed, A.A.M., Mahzuz, H.M.A. and Yusuf, M.A. 2010. Minimizing the stone dust through a sustainable way: a case study of stone crushing industry of Sylhet. http://www.benjapan.org/iceab10/58.pdf. Accessed on Sept. 26, 2012.

Ahmed, A.A.M., Mahzuz, H.M.A. and Yusuf, M.A. 2010. Using of stone powder as an alternative of sand in concrete and Mortar. Presented at International Conference on Engineering Research, Innovation and Education (CERIE), School of Applied Science, Shahjalal University of Science and Technology, Sylhet, Bangladesh, January 11-13, 2010, Abstract Book: 57.

Ahuja, M.S. 1997. History of mines safety in India vis-a-vis present status. In *Mines Safety*, eds., Dhar B.B. and Bhowmick, B.C., A.A. Balkema Publisher, New York, 1: 97-108.

Ahuja, S.K. 2009.An unstoppable green death.http://www.haryali.org/unstoppable-green-death.html. Accessed on January 16, 2012.

Aigbedon, I.N. and Iyayi, S.E. 2007. Environmental effect of mineral exploration in Nigeria. *International Journal of Physical Sciences*, 2(2): 33-38.

Akgun, M., Mirici, A., Ucar, E.Y., Kantarci, M., Araz, O. and Gorguner, M. 2006. Silicosis in Turkish denim sandblasters. *Journal of Occupational Medicine*, 56: 554-558.

Alexander, M.J. 1996. The effectiveness of small-scale irrigated agriculture in the reclamation of mine lands soils on the Jos Plateau of Nigeria. *Land Degradation and Development*, 7: 77-85.

Almeida, N., Branco, F., and Santos, J. 2007.Recycling of stone slurry in industrial activities: application to concrete mixtures. *Building and Environment*, 42: 810-819.

Almendro-Candel, M.B., Jordan, M.M., Navarro-Pedreno, J., Mataix-Solera, J. and Gomez-Lucas, I. 2007.Environmental evaluation of sewage sludge application to reclaim limestone quarries wastes as soil amendments. *Soil Biology and Biochemistry*, 39: 1328-1332.

Al-Neaimi, Y.I., Gomes, J. and Lloyd, O.L. 2001. Respiratory illnesses and ventilator function among workers at a cement factory in a rapidly developing country. *Occupational Medicine (London)*, 51: 367-373.

Alvear, G.M.G., Mendez, R.I., Villegas, R.J.A., Chapela, M.R., Eslava, C.C.A. and Laurell, A.C. 1999. Risk indicator of dust exposure and health effects in cement plant workers. *Journal of Occupational and Environmental Medicine*, 41(8): 654-661.

Amin, N. and Shwarby, A. 2006.GIS and other tools as instruments for improved site protection and management-a national quarry map of Egypt. In *Proceedings of the QuarryScapes 1st Symposium on Conservation of Ancient Stone Quarry Landscapes in the Eastern Mediterranean*, ed., Degryse, P., Antalya, Turkey: 15.

Anctil, F. and Quellet, Y. 1990.Preliminary evaluation of impacts of sand extraction near Iles-de-la-Medeleine Archipelago, Quebec, Canada. *Journal of Coastal Research*, 6(1): 37-51.

Andronikos, G.J., Koumantaraki, I. and Kaliampakos, D.C. 1998. Implication of land use planning considerations in the rehabilitation of quarries in urban areas. In *Proceedings of the International Conference on Urban, Regional, Environmental Planning and Informatics to Planning in an*

Era of Transition, eds., Sellis, T. and Georgoulis, D., National Technical University of Athens. Faculty of Architecture. Department of Urban and Regional Planning, Athens, Greece: 587-602.

Anonymous. I985. Attacks on the Otaki-Gravel or grants'? *Soil and Water magazine, National Water and Soil Conservation Authority, Wellington, New Zealand*, 21: 2-6.

Anonymous.2009a. Granite quarrying near heritage monuments to be curbed. *Mining and Environment, Centre for Science and Environment-India Green File*, 261: 16-17.

Anonymous.2009b. Illegal quarrying posing danger to public. *Mining and Environment, Centre for Science and Environment-India Green File*, 257: 16.

Anonymous. 2010a. Haryana imposes ban on mining of major minerals. *Mining and Environment, Centre for Science and Environment-India Green File*, 267: 20.

Anonymous. 2010b. Illegal mining endangers life in Chamoli. *Mining and Environment, Centre for Science and Environment-India Green File*, 267: 21.

Anonymous. 2010c. Illegal quarrying threatens Ghaggar wildlife. *Mining and Environment, Centre for Science and Environment-India Green File*, 269: 18.

Anonymous. 2010d. In Faridabad, water table up after mining was stopped, says study. *Mining and Environment, Centre for Science and Environment-India Green File*, 267: 20.

Anonymous. 2010e. Sand mafia strikes again, assaults forest officials in Chandigarh periphery. *Mining and Environment, Centre for Science and Environment-India Green File*, 275: 21.

Anonymous. 2010f. Sand mining: residents demand blanket ban. *Mining and Environment, Centre for Science and Environment-India Green File*, 266: 30.

Anonymous. 2012. India's illegal sand mining fuels boom, ravages rivers. http://www.awaazfoundation.org/Awaaz_Foundation/Sand_mining_Press_coverage/Entries/2012/5/31_Indias_illegal_sand_mining_fuels_boom,_ravages_rivers.html. Accessed on March 27, 2013.

Anoop, G. 2001. *Sand mining in river basins of Kerala: an analysis of economic and environmental implications*. M.Phil. dissertation, Department of Agriculture, Tamilnadu Agricultural University, Coimbatore, India: 86-116.

Antonopoulos, V.Z. and Wyseure, G.C.L. 1998. Modelling of water and nitrogen dynamics on an undisturbed soil and a restored soil after open-cast mining. *Agricultural Water Management*, 37: 21-40.

Apaydin, A., Taner. O., Kavakli, T. and Guner, B. 1996. A striking example to negative effects of sand-gravel pits on environment; particularly on groundwaters: Murted Plain-Ankara. *Geological Engneering Journal of Chamber of Geological Engneering, Turkey*, 50: 33-38.

Apaydm, A. 2012.Dual impact on the ground water aquifer in the Kazan Plain (Ankara, Turkey) sand gravel mining and over obstruction. *Environment Earth Science*, 65:241-255.

Ardejani, F.D., Baafi, E.Y. and Shafaei, S.Z. 2007.Modeling of ground water recovery process for prediction of land settlements in surface mines. *International Journal of Mining, Reclamation and Environment*, 21(4): 271-281.

Arivanantham, R. 2010. Illegal sand mining on the rise in Krishnagiri district. *Mining and Environment, Centre for Science and Environment-India Green File*, 265: 29.

Aromolaran, A.K. 2012.Effects of sand mining activities on land in agrarian communities of Ogun State, Nigeria. *Continental Journal of Agricultural Science*, 6(1): 41-49.

Arun, P.R., Sreeja R., Srecbha S., Maya K. and Padmalal D. 2006. River sand mining and its impact on physical and biological environments of Kerala Rivers, Southwest coast of India, *Eco-Chronicle*, 1: l-6.

Arun, P.R., Mini, S.R., Reghunath, R. and Padmalal, D. 2003. Mining of construction grade fine aggregates from river basins: a case analysis. In *Proceedings of the 15th Kerala Science Congress on Human Resource Development and Management*, ed., Valiathan, M.S., Thiruvananthapuram, India: 586-590.

Ashmole.and Motloung, M. 2008. Dimension stone: the latest trends in exploration and production technology, http://www.saimm.co.za/Conferences/SurfaceMining2008/035-070_Ashmole.pdf. Accessed on March 27, 2013.

Ashmole.and Motloung, M. 2008. Reclamation and environmental management in dimension stone mining. http://www.saimm.co.za/Conferences/SurfaceMining2008/155-178_Ashmole.pdf.Accessed on March 27, 2013.

Ashraf, M.A., Maah, M.J., Yusaff, I., Wajid, A. and Mahmood, K. 2011. Sand mining effects, cause and concern: a case study from Bestari Jaya, Selangor, Peninsular Malaysia. *Scientific Research and Essays*, 6(6): 1216-1231.

Aslam, M. Minocha, A.K. Kalra, P.D. and Srivastava, R.S. 1992. Fugitive dust emission from stone crushers. *Indian Journal Environmental Health*, 34: 187-191.

Asubiojo, O.I., Aina, P.O. and Oluwole, A.F. 1991. Effect of cement production on the elemental composition of soil in

the neighborhood of tow cement factories. *Water Air and Soil Pollution*, 57-58: 819-828.

Audu, A.A. and Muhammad, A.A. 2007. Analysis of limestone samples sourced from the middle belt zone of Nigeria. *International Journal of Pure and Applied Sciences*,1(2): 1-8.

Badenhorst, C.J. 2009. Occupational health and safety considerations for the employment of female workers in hard rock mines. http://www.saimm.co.za/Conferences/HardRockSafety2009/055-074_Badenhorst.pdf. Accessed on June 12, 2012.

Badola, S. 2008. Impact of marble mining on forest: a case study of Rajsamand Tehsil. *Annals of Rajasthan Geographers Association*, 25: 27-32.

Bagchi, P. 2010. Unregulated sand mining threatens Indian rivers. http://www.merinews.com/article/unregulated-sand-mining-threatens-indian-rivers/15798050.shtml. Accessed on March 14, 2011.

Bahrami, A.R., Golbabai, F., Mahjub, H., Qorbani, F., Aldabadi, M. and Bargi, M. 2008.Determination of exposure to repairable quartz in the stone crushing units at Azendorian, West of Iran. *Journal of Industrial Health*, 46(4): 404-408.

Balmes, J. 1990. Silica exposure and tuberculosis: an old problem with some new twists. *Journal of Occupational Medicine*, 32:114-115.

Banerjee, G.K., Srivastava, K.K. and Chakraborty, M.K. 2001. SPM is the major pollution in open cast mining: Case study. *Journal of Scientific and Industrial Research*, 60(5): 416-420.

Bang, B. and Shur, H. 1998. Quartz exposure in the slate industry in northern Norway. *Annals of Occupational Hygiene*, 42: 557-563.

Basu, A.J. and Kumar, U. 2004. Innovation and technology driven sustainability performance management framework (ITSPM) for the mining and minerals sector. *International Journal of Surface Mining, Reclamation and Environment*, 18(2): 135-149.

Batty, L.C. 2005. The potential importance of mine sites for biodiversity. *Journal of Mine, Water and Environment*, 24: 101-103.

Bauer, V. and Ziaran, V. 2005. The present state and future of the development of dimension stone mining in Slovok conditions. *Acta Montanistica Slovaca*, 10(1): 25-28.

Baviskar, A. 2008. Contract killing: silicosis among *Adivasi* migrant workers. *Economic and Political Weekly*, 43(25): 8-10.

Bayley, P.B. and Baker, C.F. 2000. Floodplain restoration in off-channel habitats used for gravel mining in the Williamette River basin. www.fws.gov/oregonfwo/...../GravelMining-sedimentRemoval. Accessed on Nov. 8, 2010.

Beckerman, W. 1992. Economic growth and the environment: whose growth? Whose environment? *World Development*, 20(4): 481-496.

Belgaumkar, G.D. 2005. Sand mining: middlemen make merry. http://www.hindu.com/pp/2005/06/25/stories/2005062501040100.htm. Accessed on March 18, 2012.

Bell, F., Stacey, T. and Genske, D. 2000. Mining subsidence and its effect on the environment: some differing examples. *Environmental Geology*, 40(1-2): 135-152.

Benke, A.C. 1990. A perspective on America's vanishing streams. *Journal of the North American Benthological Society*, 9: 77-88.

Berhe, A.A. 2007. The contribution of landmines to land degradation. *Land Degradation and Development*, 18: 1-15.

Bernaldo, Q.G.C., Fernandez, R.G. and Martinez, G.C. 1993. Pneumoconiosis in slate workers. *European Respiratory Journal*, 6(17): 349.

Bhadra, B.K., Gupta, A.K., Sharma, J.R. and Choudhary, B.R. 2007. Mining activity and its impact on the environment: study from Makrana marble and Jodhpur sandstone mining areas of Rajasthan. *Journal of the Geological Society of India*, 70: 557-570.

Bhushan, C. and Hazra, M.Z. 2008. *Rich Lands Poor People: Is Sustainable Mining Possible (State of India's Environment: A Citizen's Report)*. Centre for Science and Environment, Excellent Printing House, New Delhi: 268-273.

Biswas, S. and Bagchi, D. 2009. Fertility levels among women of stone crushing industry form Matigara block of Darjeeling district, West Bengal. *Journal of Human Ecology*, 25(2): 87-92.

Blodgett, S. and Kuipers, J.R. 2002. Underground hard-rock mining: subsidence and hydrologic environmental impacts. http://www.csp2.org/files/reports/Subsidence%20and%20Hydrologic%20Environmental%20Impacts.pdf. Accessed on March 18, 2012.

Boni, M., Costabile, S., DeVivo, B. and Gasparrini, M. 1999.Potential environmental hazard in the mining district of Southern Iglesiente (SW Sardinia, Italy). *Journal of Geochemical Exploration*, 67(1-3): 417-430.

Bose, A.N. 2000.Challenges for the Indian mining in 21st Century. In *Mining: Challenges of 21st Century*, eds., Ghose, A.K. and Dhar, B.B., APH Publishing Corporation, New Delhi, India: 59-72.

Bovenzi, M. and Hulshof, C.T. 1999.Un-updated review of epidemiologic studies on the relationship between exposure to whole-body vibration and low back pain (1986-1997). *International Archive of Occupational and Environmental Health*, 72: 351-365.

Bowen, C.K., Schuman, G.E., Olson, RA. and Ingram, L. J. 2005. Influence of topsoil depth on plant and soil attributes of 24-year old reclaimed mined lands. *Arid Land Research and Management*, 19: 267-284.

Bradshaw, A.D. 1997. Restoration of mined lands-using natural process. *Ecological Engineering*, 8: 255-269.

Bradshaw, A.D. 1990. Ecological approaches to the handling of mine waste. *Journal of Mine and Mineral World*, June 90: 22-28.

Brereton, D. and Forbes, P. 2004. Monitoring the impacts of mining on local communities: a Hunter valley case study.http://www.csrm.uq.edu.au/docs/Hunter_Valley.pdf. Accessed on Dec. 11, 2012.

Bridge, G. and McManus, P. 2000. Sticks and stones: environmental narratives and discursive regulation in the forestry and mining sectors. *Antipode*, 32(1): 10-47.

Brown, A.V. and Lyttle, M.M. 1992. Impacts of gravel mining of Ozark stream ecosystems: a final report. http://www.worldcat.org/title/impacts-of-gravel-mining-of-ozark-stream-ecosystems-a-final-report/oclc/28312963. Accessed on June 9, 2010.

Brown, A.V., Lyttle, M.M. and Brown, K.B. 1998. Impacts of gravel mining on gravel bed streams. *Transactions of the American Fisheries Society*, 127: 979-994.

Brown, T. 2009. Silica exposure, smoking, silicosis and lung cancer-complex interactions. *Journal of Occupational Medicine*, 59: 89-95.

Bruce, R. 1995. *Mortgaging the Earth: the World Bank, Environmental Impoverishment and the Crisis of Development*. Beacon Press, Boston, USA: 376.

Buchanan, D., Miller, B.G. and Soutar, C.A. 2003.Quantitative relations between exposure to respirable quartz and risk of silicosis. *Journal of Occupational Environmental Medicine*, 60: 159-164.

Burke, A. 2008. The effect of topsoil treatment on the recovery of rocky plain and outcrop plant communities in Namibia. *Journal of Arid Environments*, 72: 1531-1536.

Byrnes, M.R., Hammer, R.M., Thibaut, T.D. and Snyder, D.B. 2004. Potential effects of sand mining on physical processes and biological communities offshore New Jersey, U.S.A. *Journal of Coastal Research*, 20(1): 25-43.

Campbell, B. and Clapp, J. 1995. Guinea's economic performance under structural adjustment: importance of mining and agricultural. *The Journal of Modern African Studies*, 33(3): 425-449.

Campbell, D.B. 1992. Re-sloping of waste rock dumps. *International Mine Waste Management News*, 2(2): 7-10.

Campbell, M., Thomas, H., Hodges, N., Paul, A. and Williams, J. 2005.A 24 year cohort study of mortality in slate workers in North Wales. *Occupational Medicine (London)*, 55: 448-453.

Carey, S.K., Barbour, S.L. and Hendry, M.M. 2005. Evaporation from a waste-rock surface, Key Lake, Saskatchewan. *Canadian Geotechnical Journal*, 42: 1189-1199.

Caruso, B.S. 2006. Effectiveness of braided, gravel-bed river restoration in the Upper Waitaki basin, New Zealand.River, *Research and Applications*, 22: 905.

Celik, M. and Sabah E. 2008.Geological and technical characterization of Iscehisar (Afyon-Turkey) marble deposits and the impact of marble waste on environment pollution. *Journal of Environmental Management*, 87: 106-116.

Central Mining Research Institute (CMRI). 1997. *Scientific approach for mining of slates in Khanyara slate mine of Kangra Valley, District Dharmshala, Himachal Pradesh*. Department of Industries, Govt. of India, CMRI Technical report: 46.

Centre for Occupational and Environmental Health (COEH). 2006. Health survey of Lal-Kuan victims: final report of health assessment of Lal-Kuan subjects. http://www.okinternational.org/docs/LKscan2.pdf. Accessed on July.5, 2013.

Chamblin, H.D., Wood, P.B. and Edwards, J.W. 2004. Allegheny woodrat (Neotomamagister) use of rock drainage channels on reclaimed mines in southern West Virginia. *American Midland Naturalist*, 151: 346-354.

Chanda, E.C.K. 1990. An application of goal programming to production planning in the crushed stone industry. *International Journal of Mining Reclamation and Environment*, 4(3): 125-129.

Chandrasekaran, V.A. and Ramkumar, M. 1991. Environmental impact of limestone mining near Ariyalur, Tamil Nadu, India. *The Indian Geographical Journal*, 66(2): 120-127.

Charlier, R.H. 2002. Impact on the coastal environment of marine aggregates mining. *International Journal of Environmental Studies*, 59(3): 297-322.

Charou, E., Stefouli, M., Dimitrakopoulos, D., Vasiliou, E. and Mavrantza, O. 2010.Using remote sensing to assess impact of mining activities on land and water resources. *Mine Water and the Environment*, 29: 45-52.

Charya, S.V.U. 2009. River sand mining poses eco-threat, mining and environment. *Centre for Science and Environment-India Green File*, 254: 19.

Chatter, H. 1991. Effect of cement dust on the enzymatic activity in the levels of triticum aestivum. *Acta Ecologica Sinca*, 13: 113-119.

Chatterjee, N. 2010. The basalt stone quarries of eastern India. International *Journal of Environmental Studies*, 63(3): 439-457.

Chatterjee, V.P., Roy, B.S. and Raina, S.J. 2000. Studies on ground water vibration due to eco-friendly blasting operations: a case study. In *Mining Challenges of the 21st Century*, eds., Ghose, A.K. and Dhar, B.B., APH Publishing Corporation, Delhi, India: 711-718.

Chatterji, A. 2005. Who benefits? At what cost? State tyranny in Orissa, India. http://www.sikhspectrum.com/022005/orissa.htm.Accessed on Sept. 26, 2012.

Chattopadhyay, S. 2007. Delhi ridge invaded, *Geography and You*, 7(7): 6-7.

Chauhan, S.S. 2010. Mining development and environment: a case study of Bijolia mining area in Rajasthan, India. *Journal of Human Ecology*, 31(1): 65-72.

Chaulya, S.K. 1997. *Environment management of overburden dump stability: an integrated study*. Ph.D. dissertation, Department of Mining Engineering, Institute of Technology, Banaras Hindu University, Varanasi, India: 52.

Chaulya, S.K., Chakraborty, and Singh, R.B. 2001.Air pollution modeling for proposed lime stone quarry.*Water, Air and Soil Pollution*, 126: 171-191.

Chaulya, S.K., Singh, R.S. Chakraborty, M.K. and Srivastava, B.K. 2000.Quantification of stability improvement of a dump through biological reclamation. *Geotechnical and Geological Engineering*, 18: 193-207.

Chaulya, S.K., Singh, T.N. and Sharma, Y.C. 1992. Environmental pollution and its prevention in limestone quarries. *Indian Journal of Cement Review*, 7(9): 9-16.

Chaurasia, S., Signh, R. and Pathak, V. 2009.Environmental study of stone crushers. *Indian Journal of Environmental Protection*, 29(7): 653-656.

Checkoway, H., Hughes, J.M., Weill, H., Seixas, N.S. and Demers, P.A. 1999.Crystalline silica exposure, radiological silicosis, and lung cancer mortality in diatomaceous earth industry workers.*Thorax*, 54: 56-59.

Chen, X., Zhou, Q. and Zhang, E. 2006. In-channel sand extraction from the mid-lower Yangtze channels and its management: problems and challenge. *Journal of Environmental Planning and Management*, 49(12): 309-320.

Chevrel, S., Belocky, R. and Grosel, K. 2010. Monitoring and assessing the environmental impacts of mining in Europe using Advanced Earth Observation Techniques-MINEO. http://www.brgm.fr/mineo.Accessed on Aug. 19, 2011.

Chevrel, S., Kopackova, V., Bourguignon, A., Rojik, P. and Metelka, V. 2008. Application of high altitude and ground-based spectro-radiometry in the monitoring of hazardous waste derived from Sokolov open-pit mine. http://www.imwa.info/docs/imwa_2008/IMWA2008_223_Chevrel.pdf. Accessed on January 16, 2012.

Chi, M.V. and Hoa, M.P.V. 2009. The effect of mining exploit for environment in Quang-Nich province. http://www.fig.net/pub/vietnam/papers/ts06f/ts06f_my_hoa_3721.pdf. Accessed on January 16, 2012.

Chitade, A.Z. and Katyar, S.K. 2010. Impact analysis of open cast mines on land use and land cover using remote sensing and GIS techniques: a case study. *International Journal of Engineering Science and Technology*, 2(12): 7171-7176.

Choudri, B.S. and Chachadi, A.G, 2006. Status of groundwater availability and recharge in mining watersheds of North Goa. In *Multiple Dimensions of Global Environmental Change*, ed., Sonak, S., Teri Press, New Delhi, India: 623-649.

Chowdary, G.V.V.S., Satyanarayana, G. and Rao, B.R. 1990. Environmental problems due to quarrying in Visakhapatnam area, Andhra Pradesh. *The Indian Geographical Journal*, 65(2): 171-174.

Chowdhury, T.R. 2009. Illegal mining on near Gurgaon, says forest conservator. *Mining and Environment, Centre for Science and Environment-India Green File*, 254: 15-16.

Chowdhury, T.R. 2010. Haryana proposes long rehab for ravaged mines. *Mining and Environment, Centre for Science and Environment-India Green File*, 275: 20.

Chudnovsky, A., Ben-Dor, E., Kostinski, A. and Koren, I. 2009. Mineral content analysis of atmospheric dust using hyper-spectral information from space. *Geophysical Research Letters*, 8: 36.

Chunmel, M., Cheng, Z., Chengkun, L. and Kangjing, P. 2008. New recognitions to genesis and exploitation of the Xuxi River in Jiangsu province. *Journal of Geographical Science*, 15(3): 367-374.

Churchyard, G.J. and Corbett, E.L. 2001.Tuberculosis and associated diseases. In *Handbook of Occupational Health Practice in the South African Mining Industry*, eds., Guild, R., SIMRAC, Johannesburg: 153-192.

Cidu, R. 2007. Influence of past mining on the quality of surface waters at Funtana Raminosa (Sardinia). *Mine Water and Environment*, 26 (4): 199-208.

Clark, A. 1996.Economic, social and cultural issues in mineral development in Vietnam. *Asia Pacific Management Review*, 4:177-191.

Cloke, P., Milbourne, P. and Thomas, C. 1996. From wasteland to wonderland: opencast mining, regeneration and the English National Forest. *Geoforum*, 27: 159-174.

Collins, B. 1991.River *geomorphology and gravel mining in the Pilehuck River, Snohomish County, Washington*. Govt. of U.S., Washington, Report prepared for the Pilchuek River Coalition: 30.

Collins, B. 1995.Riverine *gravel mining in Washington state, overview of effects on Salmonid habitat, and a summary of government regulations*. Govt. of U.S., Seattle, EPA Technical Report: 1-27.

Connors, J. 2007. Abandoned mines cause environmental devastation. http://www.summitdaily.com/article/20070911/NEWS/109110078. Accessed on Sept. 11, 2010.

Conrad, P.W., Sweigard, R.J., Graves, O.H., Ringe, J.M. and Pelkki, M.H. 2002. Impacts of spoil conditions on reforestation of surface mined land. *Mining Engineering*, 54: 39-46.

Cooper, S., Mehra, Y. and Joshi, A. 2006. Depletion of fresh water in the mining regions of Goa, India: Gendered impacts and responses. In *Multiple Dimensions of Global Environmental Change*, ed., Sonak, S., Teri Press, New Delhi, India: 623-649.

Corinaldesi, V., Moriconi, G. and Naik, T. 2010.Characterization of marble powder for its use in mortar concrete. *Construction and Building Materials*, 24: 113-117.

Costa, M. 1999. Numerical modeling of slope behaviour of Delabole slate quarry (Cornwall, UK). *International Journal of Surface Mining Reclamation and Environment*, 13: 11-18.

Costello, J., Castellan, R.M., Swecker, G.S. and Kullman, G.J. 1995. Mortality of a cohort of US workers employed in the crushed stone industry, 1940-1980. *American Journal of Industrial Medicine*, 27: 625-640.

Cowell, S.J., Wehrmeyer, W., Argust, P.W., Graham, J. and Robertson, S. 1999. Sustainability and the primary extraction industries: theories and practice. *Resources Policy*, 29: 277-286.

Crosta, A. and deSouza F.C. 2000. Hyper-spectral remote sensing for mineral mapping: a case-study at Alto Paraiso-De-Goias, Central Brazil. *Revista Brasileira de Geociencias*, 30(3): 551-554.

Crosta, A. and deSouza F.C. 2005. Remote sensing in mineral exploration: South American examples of benefits gained from recent advances in sensor and processing techniques. In *Window to the World*, eds., Rhoden, H., Steininger, R. and Vikre, P., Geological Society of Nevada, Reno, Nevada, USA: 66-71.

Csoke, B., Petho, S., Foldesl, J. and Meszaros, L. 1996. Optimization of stone quarry techniques. *International Journal of Mineral Processing*, 44-45: 447-459.

Cullen, W.R., Wheater, C.P. and Dunleavy, P.J. 1998. Establishment of species-rich vegetation on reclaimed limestone quarry faces in Derbyshire, UK. *Biological Conservation*, 84: 25-33.

Cummings, J., Reid, N., Davies, I. and Grant, C. 2005. Adaptive restoration of sand-mined areas for biological conservation. *Journal of Applied Ecology*, 42: 160-170.

Cutaia, L., Massacci, P. and Roselli, I. 2004. Analysis of Landsat 5 TM images for monitoring the state of restoration of abandoned quarries. *International Journal of Surface Mining, Reclamation and Environment*, 18(2): 122-134.

Dadhwal, K.S., Juyal, G.P., Katiyar, V.S. and Joshie, P. 1998. Characterization and stabilization of limestone mine spoils. In *Soil and Water Conservation: Challenge and opportunities*, eds., Bhusan, L.S., Abrol, I.P. and Ramamohan, M.S.R., Indian Association of Soil and Water Conservations, Dehradun: 1345-1354.

Daily, G.C. 1995. Restoring value to the worlds degraded lands. *Science*, 269: 350-354.

Darmody, R.G. 1995. Modeling agricultural impacts of Longwall mine subsidence: a GIS approach. *International Journal of Surface Mining Reclamation and Environment*, 9: 63-68.

Das, D.K. and Nandi, A. 2002. Health hazard in stone quarries and crushers. Govt. of India, NISM, Kolkata, Science and Technology Project Report: 1-26.

Dasgupta, A., Sastry, K.L.N. and Dhinwa, P.S. 2012.Impact of mining on rural environment and economy-a case study, Kota district, Rajasthan. *International Journal of Remote Sensing and Geosciences*, 2(3): 21-26.

Dasgupta, A.K. and Harrison, J. 1996. Effects of vibration on the hand-arm system of miners in India. *Occupational Medicine*, 46: 71-78.

Dasgupta, A.M. and Purohit, K.M. 2001. Status of surface and ground water quality of Mandiakudar-Part I: physico-chemical parameters. *Pollution Research*, 20(1): 103-110.

Dasgupta, A.M. and Purohit, K.M. 2001. Status of surface and ground water quality of Mandiakudar-Part II: agricultural utilities. *Pollution Research*, 20(2): 219-225.

Dasgupta, A.M. and Purohit, K.M. 2001. Status of surfaces and ground water quality of Mandiakudar-Part III: correlation coefficient and regression equations. *Pollution Research*, 20(2): 227-232.

Dash, D.K. 2009. Aravalli mining to stop tonight, mining activities have depleted water table in Sirigao. *Mining and Environment, Centre for Science and Environment-India Green File*, 254: 15.

Dash, D.K. 2009. List changed to get forest land into mining zone. *Mining and Environment, Centre for Science and Environment-India Green File*, 254: 17.

Dash, D.K. 2009.Major mineral mining banned in Haryana ahead of polls. *Mining and Environment, Centre for Science and Environment-India Green File*, 260: 18.

Dash, D.K. and Chowdhury, T.R, 2010. Haryana may allow stone crushers near Aravalli plantations. *Mining and Environment, Centre for Science and Environment-India Green File*, 275: 20.

David, L. 2010. Quarrying and other minerals. In *Anthropogenic Geomorphology: A Guide to Man-Made Landforms*, eds., Szabo, J., David, L. and Loczi, D., Springer Science+Business Media, Hungary: 113-130.

Davis, B.N.K., Lakhani, K.H. and Brown, M.C. 1993. Experiments on the effects of fertilizer and rabbit grazing treatments upon the vegetation of a limestone quarry floor. *Journal of Applied Ecology*, 30: 615-628.

Dean, A.M., Hughes, S., Gibbons, W., Tsui, O., Syed, A., Dow, D. and Boivin, T. 2007. Mine development and reclamation: monitoring sustainable development using satellite imagery. http://www.eomd.esa.int/files/docs/131-176-149-30_20071011135614.pdf. Accessed on April 26, 2013.

Deb, M., Tiwari, G. and Dutt, K.L. 2008. Artisanal and small scale mining in India: selected studies and an overview of the issues. *International Journal of Mining, Reclamation and Environment*, vol. 22(3):194-209.

Decker, C., Keyes, J., Jackson, C.R., Shelton, J. and Jackson, B. 1999. Effects of sand dredging on channel morphology, invertebrate communities and fish communities in urban Dekalab County. https://smartech.gatech.edu/bitstream/handle/1853/47978/DeckerC-99.pdf?sequence=1. Accessed on April 26, 2013.

Deelgado, J., Sarmiento, A.M., Melo, M.T.C. and Nieto, J.M. 2009.Environmental impact of mining activities in the southern sector of Guadiana Basin (SW of the Iberian Peninsula). *International Journal of Water, Air and Soil Pollution*, 199: 323-341.

Degryes, P. 2007. The Sagalassos quarry landscape: bringing quarries in context. http://www.quarryscapes.no/text/publications/qs_del3_report_wp3.pdf. Accessed on April 26, 2013.

Desert Medicine Research Centre (DMRC). 2002. *Feasibility study of Measures for prevention of silicosis in sandstone quarry workers of Western Rajasthan. Govt. of Rajasthan,* Jodhpur, India, DMRC Technical Report: 5-25.

Deshpande, S. 2010. Supreme Court stops quarrying near Sanjay Gandhi National Park. *Mining and Environment, Centre for Science and Environment-India Green File*, 275: 22.

Deshpande, V.P. and Shekdar, A.V. 2005. Sustainable waste management in the Indian mining industry. *Waste Management and Research*, 23(4): 343-355.

Desiderius, C.P. 2002. Coastal erosion and its social and environmental aspects in Tanzania: a case study in illegal sand mining. *Coastal Management*, 30: 347-359.

Dhar, B.B. 1996. Mines safety-new and emerging technology. *Indian Mining and Engineering Journal*, 36(2-3): 29-33.

Dhar, B.B. 1994. Changing environmental scenario in mining industry. *Journal of Mines, Metals and Fuels*, 42(11-12): 309-314.

Dhar, B.B. 1997. Environmental friendly approaches for mining. *Indian Mining and Engineering Journal*, 36(5): 19-21.

Dhar, B.B. and Mobin, A. 1993. Impact of mining and processing activities on surrounding environment-case study. *Journal of Mining Research*, 2(2): 34-41.

Dhar, S. and Dhar, B.L. 2002.Geo-environmental impact of slate mining in the Dhauladhar Himalaya, District Kangra, Himachal Pradesh. In *Proceedings of the National Seminar on Aspects of Geology and Natural Environment of the Lesser Himalaya: Present Status and Future Strategy*, eds., Pant, C.C. and Sharma A.K., Gyanodaya Prakshan, Nainital: 329-334.

Dissanayake, C.B. and Rupasinghe, M.S. 1996. Environmental impact of mining, erosion and sedimentation in Sri Lanka. *International Journal of Environmental Studies*, 51(1): 35-50.

Dixon, J.M. and Hambler, D.J. 1993. Wildlife and reclamation ecology-rabbit middens on seeded limestone quarry-spoil. *Environmental Conservation*, 20: 65-73.

Dobson, A.P., Bradshaw, A.D. and Baker, A.J.M. 1997. Hopes for the future: restoration ecology and conservation biology. *Science*, 277: 515-522.

Dogaru, D., Zobrist, J., Balteanu, D., Popescu, C., Sima, M., Amini, M. and Yand, H. 2009. Community perception of water quality in mining affected area: a case study for the

Certej catchment in the Apuseni mountains in Romania, *Environmental Management*, 43(6): 1131-1145.

Donoghue, A.M. 2004. Occupational health hazard in mining: an overview. *Occupational Medicine*, 54: 283-289.

Donoghue, A.M. 2005. Mortality in slate workers and silicosis. *Occupational Medicine*, 55: 415-416.

Dorian, J.P. and Humphreys, H.B. 1994. Economic impacts of mining: a changing role in transitional economies. *Natural Resources Forum*, 18(1): 17-30.

Doublet, J.A. 1998. *The scoping process in the extractive industry in Malta: a case study for soft stone and hard stone quarries*. M. Sc. dissertation, Institute of Biological Science, Malta: 88-99.

Drew, L.J., Langer, W.H. and Sachs, J.S. 2002.Environmental and natural aggregate mining. *Natural Resource Research*, 11(1): 19-28.

Duan, W.J., Ren, H., Fu, S.L., Wang, J., Yang, L. and Zhang, J.P. 2008. Natural recovery of different areas of a deserted quarry in South China. *Journal of Environmental Sciences-China*, 20: 476-481.

Dunn, D.D. 1997. Influence of sand and gravel mining on sediment transport in the Brazos River, Texas. Presented at the Southern Division of the American Fisheries Society (AFS) Mid-year Meeting, Camberley, Gunter Hotel, San Antonio, Texas, February 13-16, 1997, Abstract Book: 22-27.

Dutt, K.L. 2003. Not small Job: stone quarrying and women workers in Rajmahal traps in Eastern India. In *The Socio-economic Impacts of Artisanal and Small Scale Mining in Developing Countries*, ed., Hilson, G., Taylor & Francis, A.A. Balkeama, Swets Publishers, Netherlands: 403-424.

Dutt, K.L. 2009. Role and status of women in extractive industries in India: making a place for a gender sensitive mining development. *Social Change*, 37(4): 37-64.

Dutt, K.L., 2006. Gendered livelihood in small mines and quarries in India: living on the edges. https://crawford.anu.edu.au/rmap/pdf/_docs/Smallscalemining.pdf. Accessed on April 13, 2012.

Elroi, D. 1993. Applications of geographic information systems to the production and post-production phases of a mine.Presented at National Western Mining Association Conference, Denver, CO, October 16-18, 1993, Abstract Book: 29.

Emefurieta, W.O. and Ekuajemi, V.O. 1995. Lime products and economic aspects of Igbeti, Ososo and Jakuta deposits in Southwestern Nigeria. *Journal of Mining and Geology*, 31(1): 78-89.

Erskine, W.D, and Green, D. 2000. Geomorphic effects of extractive industries and their implications for river management: the case of the Hawkesbury-Nepean River, New South Wales. In *River Management: the Australian Experience*, eds., Brizga, S. and Finlayson, B., Wiley Publishers, Chichester, UK: 123-149.

Erskine, W.D. 1990. Environmental impacts of sand and gravel extraction on river systems. In The Brisbane River: *The Source Book for the Future*, eds., Davie, P., Stock, E. and Choy, D.L., Australian Littoral Society and Queensland Museum, Brisbane: 295-302.

Erskine, W.D. 2008. Channel incision and sand compartmentalization in an Australian sandstone drainage basin subject to high flood variability. http://wage.org.au/documents/doc-45-erskine-icce-christchurch-2008.pdf. Accessed on Feb. 19, 2013.

Eweje, G. 2005. Hazardous employment and regulatory regimes in the South African mining industry: arguments for corporate ethics at workplace. *Journal of Business Ethics*, 56: 163-183.

Farmer, A.M. 1993. Effect of dust on vegetation-a review. *Environmental Pollution*, 79: 63-75.

Farrant, A.R., Mathers, S.J. and Harrison, D.J. 2003. *River mining: sand and gravel resources of the lower Rio Minho and Yallahs fan-delta, Jamaica*. British Geological Survey, Nottingham, UK, Commissioned Report No. CR/03/161N: 1-15.

Fasihuddin, M. 1998. Renewed strategies in environment management in mines. *The Indian Mining and Engineering Journal*, 37(9): 21-27.

Felice, J.J. 1993. Applications of modeling to reduce vibration and air-blast levels. Presented at 4th International Symposium on Rock Fragmentation by Blasting, Vienna, Austria, July 5-8, 1993, Abstract Book: 28-29.

Femmer, S.R. 2002. *In Stream Gravel Mining and Related Issues in Southern Missouri*. Geological Survey, Govt. of US, USGS Fact Sheet No, 012-02: 1-4.

Ferrier, G. 1999.Application of imaging spectrometer data in identifying environmental pollution caused by mining at Rodaquilar, Spain. *Remote Sensing of Environment*, 68(2): 125-137.

Fierro, A., Angers, D.A. and Beauchamp, C.J. 1999. Restoration of ecosystem function in an abandoned sandpit: plant and soil responses to paper de-inking sludge. *Journal of Applied Ecology*, 36: 244-253.

Finkelstein, M.M. 2000. Silica, silicosis, and lung cancer: a risk assessment. *American Journal of Industrial Medicine*, 38: 8-18.

Fisne, A., Kuzu, C. and Hudaverdi, T. 2011. Prediction of environmental impacts of quarry blasting operation using fuzzy logic. *Environmental Monitoring Assessment*, 174: 461-470.

Florea, A. and Fodor, D. 2000. Dimensional stone industry from Romania in the new millennium. In *Mining: Challenges of 21st Century*, eds., Ghose, A.K. and Dhar, B.B. APH Publishing Corporation, New Delhi, India: 183-189.

Florsheim, J., Goodwin, P. and Marcus, L. 1998. Geomorphic effects of gravel extraction in the Russian River, California. In *Aggregate Resources: A Global Perspective*, ed., Bobrowsky, P.T., A.A. Balkema Publishers, Rotterdam: 87-99.

Flynn, M.L.O. 2000.Manufactured sands from hard rock's quarries: environmental solution or dilemma for Southeast Queensland. *Australian Journal of Earth Science*, 47: 65-73.

Folchi, R. 2003. Environmental impact statement for mining with explosive: a quantities method. http://www.euexcert.it/wp-content/uploads/2011/10/2003.02-ENVIRONMENTAL-IMPACT-STATEMENT-FOR-MINING-WITH-EXPLOSIVES.pdf. Accessed on September 10, 2012.

Foster P.J., Parand, A. and Bennett, J. 2008.Improving the safety performance of the UK quarrying industry through a behavioral based safety intervention.http://www.saimm.co.za/Conferences/SurfaceMining2008/265-282_Foster.pdf. Accessed on March 18, 2012.

Franks, J.R. 1996. *Analysis of audiograms for a large cohort of noise-exposed miners. Cincinnati*. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Division of Biomedical and Behavior Science, Technical Report: 12-28.

Frenedozo-Soave, R.D. 2003. Phytosociological studies on natural establishment of vegetation in an un-reclaimed limestone mining. *Brazilian Archives of Biology and Technology*, 46: 259-269.

Freudenburg, W.R. and Wilson, L.J. 2002. Mining the data: analyzing the economic implications of mining for monmetropolitan regions. *Sociological Inquiry*, 72(4): 549-575.

Friis, L., Carter, N. and Edling, C. 1998. Self-reported health problems among Swedish miners one year after un-employment. *Occupational Medicine*, 48(5): 297-301.

Fulton, J.P. and Wells, L.G. 2005. Evaluation of a mechanical system for reconstructing soil on surface mined land. *Applied Engineering in Agriculture*, 21: 43-51.

Gaiero, D.M., Pesci, H.E. and Depetris, P.J. 1998. Effects of quarry mining and of other environmental impacts in the mountainous Chicam-toctina drainage basin (Cordoba, Argentina). *Environmental Geology*, 34(2-3): 159-166.

Gaillot, S. and Piegay, H. 1999. Impact of gravel mining on stream channel and coastal sediment supply: example of Calvi Bay in Corsica (France). *Journal of Coastal Research,* 15(3): 774-788.

Gangopadhyay, P.K. and Chattopadhya, B.P. 2009. Occupational health problems of stone crushers in West Bengal-a pilot study at Birbhum District. http://icmr.nic.in/annual/nioh/2003-04/ROHC%20(E)%20Kolkata/02-Stone%20Crusher.pdf.Accessed on March 11, 2011.

Garcia, B., Rodas, M., Sanchez, C.J. and Azcarate, J.A. 2007. Gravel washing waste from Jarama River deposits (Spain): an under-valued natural raw material. *Environmental Geology*, 52(6): 1097-1115.

Gardiner, D.T. 1993. Re-vegetation status of reclaimed abandoned mined land in western North-Dakota. *Arid Soil Research and Rehabilitation*, 7: 79-84.

Garg, J.K. 1990. Impact of mining activities and super thermal power stations on environment. http://moef.nic.in/sites/default/files/EIA-Summaries.pdf. Accessed on Oct. 15, 2012.

Ge, L., Chang, H.C. and Rizos, C. 2007. Mine subsidence monitoring using multi-source satellite SAR images. *Photogrammetric Engineering and Remote Sensing*, 73(3): 259-266.

Gerein, K.U.P., Eigenthaler, J., Schmidt, S. and Ehnes, H. 2004. Silica, silicosis and lung cancer: results from a cohort study in the stone and quarry industry. *International Archives of Occupational and Environmental Health*, 77(7): 313-318.

Ghose, A. and Dash, D.K. 2009. Haryana set to start more mining even as CM vows to fill up Lakes. *Mining and Environment, Centre for Science and Environment-India Green File*, 254: 16.

Ghose, M. 2004. Impact of mining on the female community: a perspective of female miners in the Indian context. *Minerals and Energy-Raw Materials Report*, 19(4): 16-24.

Ghose, M.K. 2003. Environmental impacts of Indian small-scale mining industry-an overview. *Minerals and Energy*, 18: 24-33.

Ghose, M.K. 2003.Indian small-scale mining with special emphasis on environment management. *Journal of Cleaner Production*, 11(2): 159-165.

Ghose, M.K. 2004.Effects of open cast mining on soil fertility. *Journal of Scientific and Industrial Research*, 63(4): 1006-1009.

Ghose, M.K. 2008. Application of the self life concept to the renewal of mine degraded land. *Land Contamination and Reclamation*, 16(2): 155-167.

Ghose, M.K. and Kumar, A. 2004. Mineral industries and environmental aspects in Indian context. *Indian Journal of Engineering and Material Sciences*, 11: 433-437.

Ghose, M.K. and Roy, S. 2007. Contribution of small-scale mining to employment, development and sustainability-an Indian scenario. *Environment, Development and Sustainability*, 9: 283-303.

Ghosh, A. 2009.Uncovering the rape of Aravalli's.http://blogs.timesofindia.indiatime.com/justso/entry/uncovering-the-rape-of-aravalis. Accessed on May 09, 2009.

Ghotkar, V.B., Maldhure, B.R. and Zodpey, S.P. 1995. Involvement of lung and lung function tests in stone quarry workers. *International Journal of Tuberculosis*, 42: 155-160.

Gob, F., Houbrechts, G., Hiver, J.M. and Petit, F. 2005. River dredging, channel dynamics and bedload transport in an incised meandering channel (The River Semois Belgium). *River Research and Applications*, 21: 791-804.

Gorsira, B. and Risenhoover, K.L. 1994. An evaluation of woodland reclamation on strip-mined lands in east Texas. *Environmental Management*, 18: 787-793.

Gottesfeld, P., Kephart, J., Balakrishnan, K. and Rinehart, R. 2008. Reduction of respirable following the introduction of water spray applications in Indian stone crusher's mills. *International Journal of Occupational and Environmental Health*, 14(2): 94-103.

Goudies, A. 1995.Human agency in geomorphology. In *The Human Impact on the Natural Environment*, ed., Goudie, A., Blackwell Publishers, London, UK: 235-247.

Govindaraj, G., Raveesha, S., Ahmed, T., Suryaprakash, S. and Harsha, K.N. 2009. Impact of sand mining in agricultural and common property land in peri-urban areas of Bangalore, India. Presented at the International Association of Agricultural Economists Conference, Beijing, China, August 16-22, 2002, Abstract Book: 32.

Govindaraj, G., Raveesha, S., Ahmed, T., Suryaprakash, S., Rajan, K. and Harsha, K.N. 2013. Sand mining from agricultural and common property lands in peri-urban areas: an assessment of economic loss and factors responsible for transformation from agriculture to mining. *Indian Journal of Soil Conservation*, 41 (1): 61-68.

Graham, M.H. and Haynes, R.J. 2004.Organic matter status and the size, activity and metabolic diversity of the soil microflora as indicators of the success of rehabilitation of mined sand dunes. *Biology and Fertility of Soils*, 39: 429-437.

Graham, W.G., Ashikaga, T., Hemenway, D., Weaver, S., O'Grady, R.V. 1991. Radiographic abnormalities in Vermont granite workers exposed to low levels of granite dust. *Chest*, 100(6): 1507-1514.

Graham, W.G., Weaver, S., Ashikaga, T., O'Grady, R.V. 1994. Longitudinal pulmonary function losses in Vermont granite workers. A re-evaluation. *Chest*, 106(1): 125-130.

Grandlic, C.J., Mendez, M.O., Chorover, J., Machado, B. and Maier, R.M. 2008.Plant growth-promoting bacteria for phyto-stabilization of mine tailings. *Environmental Science and Technology*, 42: 2079-2084.

Grant, C.D., Campbell, C.J. and Charnock, N.R. 2002. Selection of species suitable for derelict mine site rehabilitation in New South Wales, Australia. *Water Air and Soil Pollution*, 139: 215-235.

Greaves, I.A. 2000. Not-so-simple silicosis: a case for public health action. *American Journal of Industrial Medicine*, 37: 245-251.

Green, D.A., McAlpine, G., Semple, S., Cowi, H. and Seaton, A. 2008. Mineral dust exposure in young Indian adults: an effects on lung growth. *Occupational and Environmental Medicine*, 65(5): 306-310.

Greskevitck, M.F., Bajpayee, S.S., Hale, J.M. and Groce, D.M. 1997. Results from the national occupational health survey of mining. *Applied Occupational and Environmental Hygiene*, 12: 924-931.

Groninger, J.W., Fillmore, S.D. and Rathfon, R.A. 2006. Stand characteristics and productivity potential of Indiana surface mines reclaimed under SMCRA. *Northern Journal of Applied Forestry*, 23: 94-99.

Guebert, M.D. and Gardner, T.W. 2001 Macropore flow on a reclaimed surface mine: infiltration and hillslope hydrology. *Geomorphology*, 39: 151-169.

Gunamani, T. and Arjunan, M.C. 1991. Studies on the cement dust induced abnormalities in some timber yielding plants. *Botle Club*, 8: 87-96.

Gunn, J. and Bailey, D. 1993. Limestone quarrying and quarry reclamation in Britain. *Environmental Geology*, 21(3): 167-172.

Gupta, Y. 2010. Green clearance only for Haryana. *Mining and Environment, Centre for Science and Environment-India Green File*, 272: 14.

Gurung, M. 2010. Washing out Silicosis. http://www.civilsocietyonline.com/Archive/jan10/jan105.asp. Accessed on May 16, 2010.

Gutti B., Aji, M.M. and Magaji G. 2012.Environmental impact of natural resources exploitation in Nigeria and the way forward. *Journal of Applied Technology in Environmental Sanitation*, 2(2): 95-102.

Hall, A.R., duPreez, D.R. and Campbell, E.E. 2003.Recovery of thicket in a re-vegetated limestone mine. *South African Journal of Botany*, 69: 434-445.

Hallberg, K.B. and Johnson, D.B. 2005. Mine water microbiology. *Mine Water and Environment*, 4(1): 28-32.

Halvorson, S.J. 2002 Environmental health risks and gender in the Karakoram Himalaya, Northern Pakistan. *The Geographical Review*, 92(2): 257-281.

Hambler, D.J., Dixon, J.M. and Hale, W.H.G. 1995. Ten years in rehabilitation of spoil: Appearance, plant colonists, and the dominant herbivore. *Environmental Conservation*, 22: 323-334.

Hameed, M.S. and Sekar, A.S.S. 2009. Properties of green concrete containing quarry rock dust and marble sludge powder as fine aggregates. *ARPN Journal of Engineering and applied Science*, 4(4): 83-89.

Hamza, R.A., El-Haggar, S. and Khedr, S. 2011. Marble and granite waste: characterization and utilization in concrete bricks. *International Journal of Bioscience, Biochemistry and Bioinformatics*, 1(4): 286-291.

Hanamgond, P.T. 2007. Sand mining photographs. *Journal of Coastal Research*, 23: 949-950.

Hancock, G.R. and Turley, E. 2006.Evaluation of proposed waste rock dump design using the SIBERIA erosion *Model. Environmental Geology*, 49: 765-779.

Hansen, E.S. 1993. A follow-up study on the mortality of truck drivers. *American Journal of Industrial Medicine*, 23: 811-821.

Harding, J., Quinn, J. and Hickey, C. 2000. Effects of mining and production forestry. In *New Zeeland stream invertebrates: ecology and implications for management*, eds., Collier, K. and Winterbourn, M., New Zealand Limnological Society, Christchurch: 230-259.

Hareef, N.M.S. 2007.Correspondences.*Current Sciences*, 93(4): 443-444.

Haritash, A.K., Baskar, R., Sharma, N. and Paliwal, S. 2006. Impact of Slate quarrying on soil properties in semi-arid Mahendergarh in India. *Environmental Geology*. 51(1): 1439-1445.

Harrison, D.J. and Steadman, E.J. 2003. *Alternative sources of aggregates*. British Geological Survey, Nottingham, UK, Commissioned Report No. CR/03/95N: 21.

Hart, P.B.S., West, A.W., Kings, J.A., Watts, H.M. and Howe, J.C. 1999. Land restoration management after topsoil mining and implications for restoration policy guidelines in New Zealand. *Land Degradation and Development*, 10: 435-453.

Hartfield, P. 1997. The Consequences of sand and gravel mining within and adjacent to river stream channels in Mississippi and Louisiana. Presented at the Southern Division of the American Fisheries Society (AFS) Mid-year Meeting, Camberley, Gunter Hotel, San Antonio, Texas, February 13-16, 1997, Abstract Book: 101.

Hartmann, R. and Keplin, B. 2003. Nutrition and early growth of Pinus Sylvestris L. on extensively meliorated sandy mine spoil soils. *Forstwissenschaftliches Centralblatt*, 122: 205-218.

Harvey, M.D. and Smith.T.W. 1998. Gravel mining impacts on San Benito River, California. https://www.sciencebase.gov/catalog/item/505360afe4b097cd4fcd69ff. Accessed on Dec. 27, 2012.

Haryana Space Applications Centre (HARSAC). 2007. Environmental impact of sand mining along the Yamunanagar district: a geo-informatics approach. Department of Mines and Geology, Govt. of Haryana, India, Technical Report No. HARSAC/TR/01/2007: 12-16.

Hatsingimari, 2009.Growing number of quarries creating barren lands. *Mining and Environment, Centre for Science and Environment-India Green File*, 258: 19.

Healey, T. and Wo, K. 2002. Sediment characteristics and bed level changes in relation to sand extraction and damming of a sand-gravel river: the lower Waikato River, New Zealand. *Journal of Hydrology, New Zealand*, 41: 175-196.

Heath, M.J., Merefield, J.R. and Paithankar, A.G. 1993. Environmental impact of mining on tropical forest. *Mining Environmental Management*, 37: 14-16.

Hegde, R., Kumar, S.C.R., Kumar, K.S.A., Srinivas, S. and Ramamurtly, V. 2008. Sand extraction from agricultural fields around Bangalore, ecological disaster or economic boon. *Current Science*, 95(2): 243-248.

Hemalatha, A.C. 2003. Estimation of externalities due to sand mining in water streams in affected riparian areas of Karnataka. M.Sc. Dissertation, Department of Agricultural, University of Agricultural Science, Bangalore, India: 78-89.

Hemalatha, A.C., Chandrakanth, M.G. and Nagaraj, N. 2005.Effects of sand mining on groundwater depletion in Karnataka.http://ageconsearch.umn.edu/bitstream/43619/2/sand%20mining%20hemalatha%2c%20mgc%2c%20nn%20article.pdf. Accessed on June 20, 2013.

Hilson, G. 2002. Small scale mining and its socio-economic impacts in developing countries. *Natural Resource Forum*, 26(1): 3-13.

Hnizdo, E. and Vallyathan, V. 2003. Chronic Obstructive pulmonary disease due to occupational exposure to silica dust: a review of epidemiological and pathological evidences. *British Journal of Industrial Medicine*, 60(4): 237-243.

Hobbs, R.J. and Harris, J.A. 2001. Restoration ecology: repairing the Earth's ecosystems in the new millennium. *Restoration Ecology*, 2: 239-246.

Holmes, P.M. 2001 Shrubland restoration following woody alien invasion and mining: Effects of topsoil depth, seed source, and fertilizer addition. *Restoration Ecology*, 9: 71-84.

Howel, D., Moffatt, S., Bush, J., Dunn, C.E. and Prince, H. 2003. Public views on the links between air pollution and health in Northeast England. *Environmental Research*, 91: 163-171.

Hudson, B. 1996a. Manufactured sand-how it affects concrete. *Quarry*, 4(5): 30-39.

Hudson, B. 1996b.Flour power-fines, particle shape and manufactured sand. *Quarry*, 4(10): 64-84.

Hudson, B. 1998.Impact of manufactured sand in concrete. *Quarry*, 6(12): 31-34.

Hughes, J.M., Weill, H., Rando, R.J., Shi, R., McDonald, A.D. and McDonald, J.C. 2001.Cohort mortality study of North American industrial sand workers. II. Case-referent analysis of lung cancer and silicosis deaths. *The Annals of Occupational Hygiene*, 45: 201-207.

Hussain A. 2013. Kota stone mining: environmental issues. http://www.slideshare.net/AkhtarHUssain10/kota-stone-mining-environmental-issues. Accessed on March 27, 2013.

Huxtable, C.H.A., Koen, T.B. and Waterhouse, D. 2005. Establishment of native and exotic grasses on mine overburden and topsoil in the Hunter Valley, New South Wales. *Rangeland Journal*, 27: 73-88.

Ibanga, I.J., Udoma, G.H., Edet, A.B. and Akpan, F.S. 2005 Physico-chemical properties of some limestone soils in Southeastern Nigeria. *Nigerian Journal of Soil Science*, 15: 81-86.

Ibarra, J.M.N. and de-las-Heras, M.M. 2005.Open-cast mining reclamation. In *Forest Restoration in Landscapes: Beyond Planting Trees*, eds., Mansourian, S., Vallauri, D. and Dudley, N., Springer, New York: 370-376.

Ibrahim, R. 2002. Environmental Impacts of quarrying activities on stone crushers: a case study of Mewat region in Haryana. *The Deccan Geographer*, 40(2): 55-62.

Ilangovana, R., Mahendrana, N. and Nagamanib, K. 2008. Strength and durability properties of concrete containing quarry rock dust as fine aggregates. *ARPN Journal of Engineering and Applied Science*, 3(5): 20-26.

Ilyas, M. and Rasheed, F. 2010. Health and environment related issues in stone crushing in Pakistan. Presented at 10th Round Regional Research Competition, South Asia Network of Economic Research Institutes Islamabad, Pakistan: 1-17.

India Committee of the Netherlands (ICN). 2005. Budhpura 'ground zero' sandstone quarrying in India. India Committee of the Netherlands. http://www.indianet.nl/english.html.Accessed on May 5, 2008.

India Committee of the Netherlands (ICN). 2006. From quarry to Graveyard. India Committee of the Netherlands.http://www.indianet.nl/english.html.Accessed on May 5, 2008.

Ingold, D.J. 2002.Use of a reclaimed strip-mine by grassland nesting birds in east-central Ohio. *Ohio Journal of Science*, 102: 56-62.

International Union for Conservation of Nature (IUCN). 2006. Environmental Fiscal Reform in Abbottabad: Mining and Quarrying. http://cmsdata.iucn.org/downloads/pk_efr_mining_quarrying.pdf. Accessed on August 12, 2012.

Iqbal, M.Z. and Shafig, M. 2001. Periodical effect of cement dust pollution on the growth of some plants. *Turkey Journal of Botany*, 25: 19-24.

Ittekkot, V. and Lanne, R.W.P.M. 1991.Fate of riverine particulate organic matter. In Biogeochemistry of major World Rivers, eds.,Degens, E.T., Kempe, S. and Richey, J.E. SCOPE, Wiley, New York: 233-243.

Iwanoff, A. 1998. Environmental impacts of deep opencast limestone mines in Laegerdoref, Northern Germany, *Mine, Water and the Environment*, 17(1): 52-61.

Jacob, N. and Lala, S. 2009. Mining induced conflicts over water- experiences, examples: solution, exchange for the water community consolidated reply. http://www.indiawaterportal.org/sites/indiawaterportal.org/files/cr-se-wes-20020901.pdf. Accessed on August 12, 2012.

Jacobson, R.B. 1997. Sand and gravel mining in alluvial system. Presented at the Southern Division of the American Fisheries Society (AFS) Mid-year Meeting, Gunter Hotel, Camberley, San Antonio, Texas, February 13-16, 1997, Abstract Book: 67.

Jarvholm, B., Silverman, D. 2003. Lung cancer in heavy equipment operators and truck drivers with diesel exhaust exposure in the construction industry. *Occupational and Environmental Medicine*, 60: 516-520.

Jason, C., Nick, R., Ian, D. and Carl, G. 2005. Adaptive restoration of sand-mined areas for biological conservation. *Journal of Applied Ecology*, 42(1): 160-170.

Jayawardhane, U.D. and Dissanayake, D.M.S. 2006.Use of quarry dust instead of river sand for future construction in Sri Lanka. The Geological Society of London, UK, AEG 200E, 38: 14.

Jena, P.K., Ray, P., Mohanty, M. and Jena, S. 2005.Mine resource conservation and environmental management. Presented at International Symposium Manage Mining Metallurgical Industries, Bhubaneshwar, Odisha, India, December11-14, 2005, Abstract Book: 87.

Jennings, N.S. 2000. Occupational health and safety in Mining: Some issues for the 21st Century. In *Mining Challenges of the 21st Century*, eds., Ghose, A.K. and Dhar, B.B., APH Publishing Corporation, Delhi, India: 3-14.

Jeong, G.Y. 2006. Mineralogy and geochemistry of metalliferous black slates in the Okcheon metamorphic belt, Korea: a metamorphic analogue of black shales in the South China block. *Mineralium Deposita*, 41: 469-481.

Jha, A.K. and Singh, J.S. 1991. Spoil characteristics and vegetation development on an age series of mine spoils in a dry tropical environment. *Vegetatio*, 97: 63-76.

Jha, M.P. Panwar, M. and Khandelwal, D. 2012.Mining and land management of Kishangarh (Rajasthan) with the integration of GIS technique. *International Journal of Remote Sensing and Geosciences*, 1(2): 13-18.

Jha, P.K., Nair, S., Gopinathan, M.C. and Babu, C. R. 1995. Suitability of Rhizobiainoculated wild legumes Argyrolobium flaccidum, Astragalus graveolens, Indigofera gangetica and Lespedeza stenocarpa in providing a vegetational cover in an un-reclaimed limestone quarry. *Plant and Soil*, 177: 139-149.

Jhanwar, M.L. 1996. Applications of remote sensing for environmental monitoring in Bijolia mining area of Rajasthan. *Journal of the Indian Society of Remote Sensing*, 24(4): 255-264.

Jia, L. and Luo, Z. 2007. Impacts of the large amount of sand mining on riverbed morphology and tidal dynamics in lower reaches and delta of the Dongjiang River. *Journal of Geographical Science*, 17: 197-211.

Jiefeng, Y. and Liu, Z. 2000. Study on the policy, laws and regulations of sand dredging management of the Changjiang River. *Yangtze River*, 31(11): 22-24.

Jim, C.Y. 2001.Ecological and landscape rehabilitation of a quarry site in Hong Kong. *Restoration Ecology*, 9: 85-94.

Jimeno, L.C., Jimeno, L.E. and Carcedo, F.J.A. 1995. Drilling and blasting of Rocks. Geo-mining, Technological Institute of Spain, 12: 345-351.

Jinxiu, L., Xiao, Z. and Xia, X. 1992. Discussions on the exploitation and management of sand resource in the middle and lower reach of the Changjiang River. *Yangtze River*, 23(9): 7-10.

Johnston, G.J. and Durucan, S. 1994. The numerical prediction, analysis and modeling of ground vibration induced by blasting. Presented at 3rd International Symposium on Mine Planning and Equipment Selection, Istanbul, Turkey, October 18-20, 1994, Abstract Book: 62.

Jordan, M.M., Pina, S., Garcia-Orenes, F., Almendro-Candel, M.B. and Garcia-Sanchez, E. 2008. Environmental risk evaluation of the use of mine spoils and treated sewage sludge in the ecological restoration of limestone quarries. *Environmental Geology*, 55: 453-462.

Joy, J. 2004. Occupational safety risk management in Australian mining. *Occupational Medicine*, 54: 311-315.

Kadekodi, G.K. 2010.The health of mining and wealth of miners. *Economic and Political Weekly*, 30: 14-15.

Kahn, J.R., Franceschi, D., Curi, A. and Vale, E. 2001.Economical and financial aspects of mines closure. *Natural Resources Forum*, 25: 265-274.

Kahriman, A., Karadogan, A. and Ozdemir, K. 2004. *Prediction and investigation from point of view damage risk of ground vibration and air blast values induced by blasting excavation*. The Research Fund of the University of Istanbul, Turkey, Project No. 39/11092002: 16-22.

Kahriman, A., Ozer, U., Aksoy, M., Karadogan, A. and Tuncer, G. 2006. Environmental impacts of bench blasting at Hisarcik boron open pit mine in Turkey. *Environmental Geology*, 50: 1015-1023.

Kahriman, A., Tuncer, G., Gorgun, S. and Karadogan, A. 2002. Monitoring and analyzing ground vibration induced by different blasting excavation activities. Presented at 7th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production, Cagliari, Italy, October 7-10, 2002, Abstract Book: 385-394.

Kahriman, A., Tuncer, G., Karadogan, A. and Ozdemir, K. 2005. KuzRam and digital image processing system combination to determine specific blasting parameters. Presented at the 31st Annual Conference on Explosives and Blasting Technique, Orlando, FL, USA, February 6-9, 2005, Abstract Book 1: 399-407.

Kahriman, A., Tuncer, G., Karadogan, A., Ozer, U. and Aksoy, M. 2006. Investigation of ground vibration induced by blasting at Hisarcik boron open pit mine in Turkey. Presented at the 32nd Annual Conference on Explosives and Blasting Technique, Dallas, TX, USA, January 29-February 1, 2006: 2: 142-146.

Kaliampakos, D.C. 1998. Rehabilitation of an abandoned quarry used as uncontrolled landfill. *International Journal Surface Mining Reclamation and Environment*, 12: 61-65.

Kaliampakos, D.C. and Mavrikos, A.A. 2006.Introducing a new aspect in marble quarry rehabilitation in Greece. *Environmental Geology*, 50: 353-359.

Kandrika, S. and Dwivedi, R.S. 2003.Assessment of the impact of mining on agricultural land using erosion-deposition model and space borne multi spectral data. *Journal of Spatial Hydrology*, 3(2): 1-17.

Kanehl, P. and Lyons, J. 1992. Impacts of in-stream sand and gravel mining on stream habitat and fish communities including a survey on the Big Rib River, Marathon County, Wisconsin. Wisconsin Department of Natural Resources, Govt. of USA, Wisconsin, USA, Research Report 155: 58.

Kangalawe, R.Y.M. 2010.Changing landuse/cover pattern and implications for sustainable environmental management in the Irangi Hills, Central Tanania. *Environmental Development Sustainable*, 12: 449-461.

Kanjilal, P. 1992. Closure of stone crushers leaves labour high and dry.http://www.downtoearth.org.in/node/29868. Accessed on August 12, 2012.

Kant, K., Kuriakose, S., Rashmi.and Sharma, G.S. 2010. Radon Activity and radiation dose level in the slate mines in Aravalli range in India. *Indian Journal of Pure and Applied Physics*, 48: 463-465.

Kartam, N., Al-Mutairi, N., Al-Ghusain, I. and Al-Humoud, J. 2004.Environmental management of construction and demolition waste in Kwait. *Waste Management*, 24: 1049-1059.

Katz, M. 2006. Stone quarry operations. In *Land, Water and Mineral Resources in Science Education (Science and Technology Education and Future Human Needs)*, ed., Norman, J.G., Pergamum Press, London, UK, 1: 4272-275.

Kecojevic, V. and Radomsky, M. 2005. Fly rock phenomena and area security in blasting related accidents. *Safety Science*, 43(9): 739-750.

Kecojevic, V., Komljenovic, D., Groves, W. and Radomsky, M. 2006. Equipment-related fatal accidents in US mining operations: 1995-2005. *Safety Science*, 45(8): 864-874.

Kecojevic, V., Nelson, T. and Schissler, A. 2004.An analysis of aggregate production in the United States. *Miner Energy*, 19: 25-33.

Kesimal, A., Ercikdi, B. and Cihangir, F. 2005. An evaluation of the results of ground vibration induced by blasting at Arakh-Tasonu limestone quarry in Trabzon. Govt. of Trabzon Province, Turkey, Project Report No. 2: 25.

Kesimal, A., Ercikdi, B. and Cihangir, F. 2005. Analysis of bench instability resulted from the planar failure at Arakh-Tasonu limestone quarry in Trabzon. Govt. of Trabzon Province, Turkey, Project Report No. 3: 72.

Kesimal, A., Ercikdi, B. and Cihangir, F. 2008. Environmental impacts of blast induced acceleration on slope instability at a limestone quarry. *Environmental Geology,* 54: 381-389.

Khandelwal, M. 2011. Blast-induced ground vibration prediction using support vector machine. *Engineering with Computers*, 27: 193-200.

Khater, C., Martin, A. and Maillet, J. 2003.Spontaneous vegetation dynamics and restoration prospects for limestone quarries in Lebanon. *Applied Vegetation Science*, 6: 199-204.

Kim, C. 2005. Impact analysis of river aggregate mining on river environment. *Water Engineering*, 9(1): 45-48.

Kissell, F.N. and Chekan, G.J. 2003. Dust control in stone mines. In *Handbook for Dust Control in Mining*, ed., Kissell, F.N., NIOSH-Publishers, Pittsburgh, PA, USA: 57-71.

Kitetu, J. and Rowan, J. 1997. Integrated environmental assessment applied to river sand harvesting in Kenya. In *Sustainable Development in a Developing World: Integrated Socio-economic Appraisal and Environmental Assessment*, eds., Kirkpatric, C.H. and Lee, N., Edward Elgar Publishers, Cheltenham, UK: 189-199.

Kitula A.G.N. 2006. The environmental and socio-economic impacts of mining on local livelihoods in Tanzania: A case study of Geita District. *Journal of Cleaner Production*, 14(3-4): 405-414.

Kojovic, T. 1996. Autogenous crusher for manufactured sand. *Quarry*, 4(10): 89-90.

Kondolf, G.M. 1993. The reclamation concept in regulation of gravel mining in California. *Journal of Environmental Planning and Management*, 36: 397-409.

Kondolf, G.M. 1994a. Geomorphic and environmental effects of in-stream gravel mining. *Landscape and Urban Planning*, 28(2-3): 225-243.

Kondolf, G.M. 1994b. Environmental planning in regulation and management of in-stream gravel mining in California. *Landscape and Urban Planning*, 29: 185-199.

Kondolf, G.M. 1997. Hungry water: effects of dams and gravel mining on river channels. *Environmental Management*, 21: 533-551.

Kondolf, G.M. 1998a.Environmental effects of aggregate extraction from river channels and floodplains. In *Aggregate resources: a global perspective*, ed.,

Bobrowsky, P.T., A.A. Balkema, Brookfield: 113-129.

Kondolf, G.M. 1998. Large scale extraction of alluvial deposits from rivers in California: geomorphic effects and regulatory strategies. In *Gravel bed rivers in the environment*, eds., Klingeman, P.C., Beschta, R.L., Komar, P.D. and Bradley, J .B., Water Resources Publications, Colorado, 455-470.

Kondolf, G.M. and Larson, M. 1995. Historical channel analysis and its application to riparian and aquatic habitat restoration. *Aquatic Conservation*, 5: 109-126.

Kondolf, G.M. and Swanson, M.L. 1993. Channel adjustment to reservoir construction and gravel extraction along stony creek, California. *Environmental Geology and Water Science*, 21: 256-269.

Kondolf, G.M., Smeltzer, M. and Kimball, L. 2002. *Freshwater gravel mining and dredging issues*. Center for Environmental Design and Research, University of California, Berkeley Washington Department of Fish and wildlife, Washington Department of Ecology and Washington Department of Transportation, Technical Report: 122.

Koruyan, K., Deliormanli, A.H., Karaca, Z., Momayez, M., Lu, H. and Yalcin, E. 2012.Remote sensing in management of mining land and proximate habitat. *The Journal of the Southern African Institute of Mining and Metallurgy*, 112: 667-672.

Koul, A.A. 2009. Now stone quarries threaten valley's green gold. *Mining and Environment, Centre for Science and Environment-India Green File*, 258: 25.

Krishna, A.P. 1995. Environmental assessment and monitoring of mining in Himalayan region-a remote sensing approach. In Proceedings *ISRS Silver Jubilee Year Symposium on Remote Sensing for Environmental Monitoring and Management with Special Emphasis on Hill Regions and Annual Convention of Indian Society of Remote Sensing,IIRS, Dehradun*, ed., Indian Society of Remote Sensing, A Joint ISRS-NNRMS Publication, Dehradun, Uttrakhand, India: 10-11.

Kuecker, G.D. 2007. Fighting for the forests: Grassroots resistance to mining in northern Ecuador. *Latin American Perspective*, 34(2): 94-107.

Kuemmerle, T., Chaskovskyy, O., Knorn, J., Radeloff, V.C., Kruhlov, I., Keeton, W.S. and Hostert, P. 2009. Forest covers change and illegal logging in the Ukrainian Carpathians in the transition period from 1988 to 2007. *Remote Sensing of Environment*, 113(6): 1194-1207.

Kulkarni, G.K. 2007. Prevention and control of silicosis: a national challenge. *Indian Journal of Occupational and Environmental Medicine*, 11(3): 95-96.

Kullman, G.J., Greife, A.L., Costello, J. and Hearl, F.J. 1995. Occupational exposures to fibers and quartz at 19 crushed stone mining and milling operations. *American Journal of Industrial Medicine*, 27: 641-660.

Kumar, A., Agrawal, R.K. and Rai, P. 2004. Surface mine closure planning. *The Indian Mining and Engineering Journal*, 43(8-9): 16-19.

Kumar, K. and Rawat, D.S. 2000. Environmental impacts of mineral extraction in Kumaun Himalaya. In *Earth Resources and Environmental Issues*, eds., Sinha A.K. and Srivastva, P., ABD Publishers, Jaipur, Rajasthan, India: 47-56.

Kumar, M., Suryanarayana, K. and Venkatesh, T. 2003. Value added products from marble slurry waste. http://www.cdos-india.com/Papers%20technical.htm. Accessed on Oct. 18, 2011.

Kumar, P.S. and Gopalan, R. 2007.Impact of mining on water availability and quality experience. *Environment, Water and Community*, 2: 1-17.

Kumar, R. 1996. Impact of silica sand mining activity on environment in Faridabad district, Haryana. Presented at Symposium on Earth Science in Environmental Assessment and Management, Bangalore, India, May 17, 1996, Abstract Book: 91.

Kumar, R.R., Shadaksharasamy, N. and Srinivas, G. 2000. Impacts of granite quarrying on environment in Bangalore district with reference to socioeconomic status of workers. *Pollution Research*, 19: 51- 54.

Kumar, S.S. and John, T.K. 2004.Metamorphism of Muryad Kayal within Vembanand-Kal-Wetland system due to Human Intervention. *Nature, Environment and Pollution Technology*, 3(2): 179-184.

Kunwar, D.S. 2010. Quarrying despite Supreme Court ban in Uttarakhand. *Mining and Environment, Centre for Science and Environment-India Green File*, 270: 12.

Kurz, D. 1997. Sand and gravel mining: an industry overview. Presented at the Southern Division of the American Fisheries Society (AFS) Mid-year Meeting, Gunter Hotel, Camberley, San Antonio, Texas, February 13-16, 1997, Abstract Book: 82.

Kuzu, C. and Ergin, H. 2005. An assessment of environmental impacts of quarry blasting operations: a case study in Istanbul, Turkey. *Environmental Geology*, 48: 211-217.

Kwan, R.T.F. and Abbey, S. 1993. Impact of sand and gravel extraction on stability of Leichhardt River at Mounth Isa, Queensland. http://search.informit.com.au /documentSummary;dn=400399214791346;res=IELENG . Accessed on May 8, 2009.

Labonne, B. 1996. Artisanal mining: an economic stepping stone for women. *Natural Resources Forum*, 20(2): 117-122.

Labonne, B. 2002. Commentary: harnessing mining for poverty reduction, especially in Africa. *Natural Resources Forum*, 26: 69-73.

Lai-gui, W., Xi-lin, L., Ling, L. and Liang, H. 2008. Research on mechanism of groundwater pollution from mine water in abandoned mines. *Journal of Cole Science and Engineering*, 14(2): 294-298.

Lamb, A.D. 2000. Earth observation technology applied to mining related environmental issues. *Transactions of Institute Mining and Metallurgy (Section A: Mining Technology)*, 109: A153-A156.

Lamelas, M.T., Marinoni, O., Hoppe, A. and de-la-Riva, J. 2008.Sustainability analysis for sand and gravel extraction site locations in the context of a sustainable development in the surrounding of Zaragoza (Spain). *Environmental Geology*, 55(8): 1673-1686.

Landfield, A.H. and Karra, V. 2000.Life cycle assessment of a rock crusher. *Resources, Conservation and Recycling*, 28: 207-217.

Lapcik, V. 2003. Environmental impact assessment in branch of surface mining of raw material: a tool for rehabilitation. http://www.innotool.hu /innotool2/hun/pdf/pres/lapcik_vladimir_dr.pdf. Accessed on Oct. 13, 2012.

Laraqui, H.C.H., Laraqui, H.O., Rahhali, A.E., Tripodi, D., Caubet, A., Belamallem, I., Verger, C., Hakam, K. and Alaoui, Y.A. 2002. Respiratory symptoms and ventilator disorder among a group of cement workers in Morocco. *Revue des Maladies Respiratoires*, 19(1-2): 183-189.

Latifovic, R., Fytas, K., Chen, J. and Paraszczak, J. 2005. Assessing land cover change resulting from large surface mining development. *International Journal on Applied Earth Observation and Geo-information*, 7(1): 29-48.

Lau, W., Ge, L. and Jia, X. 2006. The possibility of using multi-temporal Landsat images for mining monitoring: a preliminary study. http://citeseerx.ist.psu.edu /viewdoc/summary?doi=10.1.1.117.1829. Accessed on June 4, 2012.

Lawal, P.O. 2011.Effects of sand/gravel mining in Minna Emirate area of Nigeria on stakeholders. *Journal of Sustainable Development*, 4(1): 193-199.

Leavitt, K.J., Fernandez, G.C.J. and Nowak, R.S. 2000. Plant establishment on angle of repose mine waste dumps. *Journal of Range Management*, 53: 442-452.

Leeuw, J.D., Georgiadon, Y., Kerle, N., Gier, A.D., Inoue, Y., Ferwerda, J., Smies, M. and Narantuya, D. 2010a.The function of remote sensing in support of environmental policy. *Remote Sensing*, 2: 1731-1750.

Leeuw, J.D., Shankmam, D., Wu, G., De Boer, W.F., Burnham, J., HeQing, Yesoy, H. and Xiao, J. 2010b. Strategic assessment of the magnitude and impacts of sand mining in Poyang lake, China. *Regional Environmental Change*, 10: 95-102.

Li, N. and Chen, H. 1997. Impacts of sand dredging on the flood control of the Daqinghe River. *Yellow River*, 28(3): 29-32.

Liangwen, J., Zhangren, L., Quingshu, O.S. and Yaping, L. 2007. Impacts of the large amount of sand mining on riverbed morphology and tidal dynamics in lower reaches and delta of the Dongjiang River. *Journal of Geographical Science*, 21(2): 197-211.

Limaye, S.D. 2003. Groundwater and cement industry: an Indian experience. *RMZ-Materials and Geo-environment*, 50(1): 189-191.

Limpitlaw, D. 2003. Mapping mine waste and environmental impacts in Zambia with Landsat. http://www.csmi.co.za/papers1/Mapping_mining_waste_ using_landsat_feb04.pdf. Accessed on February 3, 2009.

Lin, C., Tong, X., Lu, W., Yan, L., Wu, Y., Nie, C., Chu, C. and Long, J. 2005. Environmental impacts of surface mining on mined lands affected streams and agricultural lands in the Dabaoshan mine region, Southern China. *Land Degradation and Development*, 16: 463-474.

Liu, C.C., Sousa, M. de A. and Gopinath, T.R. 2000.Regional structural analysis by remote sensing for mineral exploration, Paraiba State, Northeast Brazil.Geocarto International, 15: 69-75.

Liu, J.L., Du, M., Shang, K.Y., Chen, S.Y., Xu, H.B., Xie, M.Y. 1997. The effects of cement dust pollution on rice, rape and soil. *Journal of Plant Resources and Environment*, 6: 42-47.

Liu, L., Jing, X., Wang, J. and Zhao, C. 2009.Analysis of the changes vegetation coverage of western Beijing mountainous areas using remote sensing and GIS. *Environmental Monitoring and Assessment*, 153 (1-4): 339-349.

Lobo, V. 2008.Characterization of Jaisamand and its implication for management. http://wldb.ilec.or.jp/data/ilec/wlc12/P%20-%20World%20Case%20Studies/P-29.pdf. Accessed on June 18, 2013.

Loch, R.J. 2000. Effects of vegetation cover on runoff and erosion under simulated rain and overland flow on a rehabilitated site on the Meandu Mine, Tarong, Queensland. *Australian Journal of Soil Research*, 38: 299-

312.

Lopez, J.L.S. 2004. Channel response to gravel mining activities in mountain rivers. *Journal of Mountain Science*, 1(3): 264-269.

Love, R.G., Waclawski, E.R. and Maclaren, W.M. 1994. *Cross-sectional Study of Risks of Respiratory Disease in Relation to Exposures of Airborne Quartz in the Heavy Clay Industry*. Institute of Occupational Medicine, Edinburgh, UK, Research Report No. IOM, TM/94/07: 12-23.

Love, R.G., Waclawski, E.R., Maclaren, W.M., Wetherill, G.Z., Groat, S.K., Porteous, R.H.and Soutar, C.A. 1999. Risks of respiratory disease in the heavy clay industry. *Occupational and Environmental Medicine*, 56(2): 124-133.

Lu, X.X., Zhang, S.R., Xie, S.P., Ma, P.K. 2007a. Rapid channel incision of the lower Pearl River (China) since the 1990s as a consequence of sediment depletion. *Hydrology and Earth System Sciences*, 11: 1897-1906.

Lutman, M.E. and Hall, A.J. 2000. *Novel methods for the identification of noise induced hearing loss*. Institute of Sound and Vibration Research, Southampton, UK, Contract Research Report No. 261/2000: 49.

Maa, J.P.Y., Hobbs, Ill, C.H., Kim, S.C. and Wei, E. 2004. Potential impacts of sand mining offshore of Maryland and Delaware: Part-l: Impacts on physical oceanographic processes. *Journal of Coastal Research*, 20: 44-60.

MacDonald, N.W., Koetje, M.T. and Perry, B.J. 2003. Native warm-season grass establishment on spotted knapweed-infested gravel mine spoils. *Journal of Soil and Water Conservation*, 58: 243-250.

Macfarlane, M. and Mitchell, P. 2003. Scoping and assessment of the environmental and social impacts of river mining in Jamaica. http://www.bgs.ac.uk /research/international/DFID-KAR/ADD011_col.pdf. Accessed on Nov. 9, 2012.

Madikeri, D.H. 2009. Protest held against illegal sand mining in Kodipete. *Mining and Environment, Centre for Science and Environment-India Green File*, 258: 21.

Mahajan, A. and Kohli, K. 2002. UIttaranchal: new threats to forests. *The Hindu: Survey of the Environment*, 27-31.

Mahapatra, D. 2010. Six hundred hectares for mining in Faridabad. *Mining and Environment, Centre for Science and Environment-India Green File*, 267: 20-21.

Maharastra Polllution Control Board (MPCB). 2005. *Report on Environmental pollution due to stone quarrying at Hisanadani Gardens, Powai, Mumbai*. MPCB, Kalptaru Paint, Sion (E), Mumbai, India: 1-7.

Maheshwari, D. 2008. Impact of marble mining on water resources: a case study of Rajsamand tehsil region. *Annals of the Rajasthan Geographical Association*, 25: 53-58.

Maheshwari, D. and Badola, S. 2007. Adverse impact of marble mining on environment: a study of Rajsamand region. *Annals of the Rajasthan Geographical Association*, 25: 31-36.

Maheshwari, D. and Intodia, K. 2010. Impacts of marble slurry on underground water: a geo-statistical analysis using remote sensing and geographical information system. *Annals of the Rajasthan Geographical Association*, 27: 147-152.

Maiti, R. 1999. Mining and environment: a few case studies in Darjeeling Himalaya. Presented at 10th Annual Conference of Indian Institute of Geo-morphologists, on Geomorphology and Environment, Department of Geography, KU. Kurukshetra, February 6-8, 1999, Abstract Book: 44.

Malmberg, P., Hedenstrom, H., and Sundblad, B.M. 1993. Changes in lung function of granite crushers exposed to moderately high silica concentrations: a 12 year follow up. *British Journal Industrial Medicine*, 50(8): 726-731.

Manaf, M.H. 1999. The environmental impact of small scale mining in Indonesia. Presented at 3rd Environmental Cooperation Workshop for Sustainable Development on Mining Activities, Cairns, Australia, Oct. 5-8, 1999, Abstract Book: 172.

Mandal, B.B. and Srivastava, A.K. 2006.Risk from vibration in Indian mines. *Indian Journal of Occupational and Environmental Medicine*, 10(2): 53-57.

Manjeet, S. 1995. Development deathtraps. http://www.downtoearth.org.in/node/27865. Accessed on June 12, 2012.

Mao, Y. and Huang, C. 2004. Experimental study on effect of sand mining on riverbed deformation. *Journal of Hydraulic Engineering*, (5): 64-69.

Maponga, O. and Munyanduri, N. 2001.Sustainability of the dimension stone industry in Zimbabwe- challenge and opportunities. *Natural Resource Forum*, 25(1): 203-213.

Marh, B.S and Pathania, S.S. 2008. Environment degradation due to slate mining: a case study of Khanyara Mines, Kangra District, Himachal Pradesh. In *Perspectives in Resources Management in Developing Countries,(Vol. 2, Part 1: Population, Resources and Development)*, ed., Thakur, B., Concept Publishing Company, New Delhi, India: 232-243.

Markuna, R.S. 2009. Illegal mining goes on unabated. *Mining and Environment, Centre for Science and Environment-India Green File*, 263: 19-20.

Marquez, E.D., Sella, S.M., deMello, W.Z., Lacerda, L.D.

and Silva-Filho, E.V. 2007.Hydro-geochemistry of sand pit lakes at Sepetiba basin, Rio-de-Janeiro, Southeastern Brazil. *Water, Air and Soil Pollution*, 189: 21-36.

Mars, J.C. and Crowley, J.K. 2003. Mapping mine wastes and analyzing areas affected by selenium-rich water runoff in southeast Idaho using AVIRIS imagery and digital elevation data. *Remote Sensing of Environment*, 84(3): 422-436.

Marsh, S.H. 2000. The MINEO Project: earth observation of mine pollution in Europe. *GRSG Newletter*, 28: 30-32.

Marston, R.A., Bravard, J.P. and Green, F. 2003. Impacts of reforestation and gravel mining on the Malnant River, Haute- Savoie, French Alps. *Geomorphology*, 55: 65-74.

Martin, G.H. 1999. *Construction materials from lime stone crusts in North Africa and Middle-east*. Institute of Geology and Paleontology, University of Giessen, Germany, Technical Bulletin, Geo/1999-102: 117-127.

Martinec, P. and Schejbalova, B. 2004. History and environment impact of mining in the Ostrava-Karvina. *Geologica Belgica*, 7 (3-4): 215-223.

Masalu, D.C.P. 2002. Coastal erosion and its social and environmental aspects in Tanzania: a case study in illegal sand mining. *Coastal Management*, 30(4): 347-359.

Mas-Pla, I., Montaner, J. and Sola, J 1999. Groundwater resources and quality variations caused by gravel mining in coastal streams. *Journal of Hydrology*, 216: 187-213.

Mathur, M.L. 1996. Silicosis among and stone quarry workers of a desert district Jodhpur. *Annals of the National Academy of Medical Sciences*, 32: 113-118.

Mathur, M.L. 2005. Patterns and predictors of mortality in sand stone quarry workers. *Indian Journal of Occupational and Environmental Medicine*, 9(2): 80-85.

Matias, J.M., Vaamonde, A., Taboada, J. and Manteiga, W.G. 2004. Comparison of kriging and neural networks with application to the exploitation of a slate mine. *Mathematical Geology*, 36(4): 463-486.

Mbamali, I. 2007. Stone quarrying in Nigeria: an overview of necessary initiations towards a sustainable built environment. *Construction Focus*, 1(2): 29-35.

Mcbride, D.I. 2004. Noise induced hearing loss hearing conservation in mining, *Occupational Medicine*, 54: 290-296.

McPhee, B. 2004.Ergonomics in mining. *Occupational Medicine*, 54: 297-303.

Meador, M.R. and Layher, A.O. 1998. In-stream sand and gravel mining: environmental issues and regulatory process in the United States. *Fisheries*, 23(11): 6-13.

Mehnert, W.H., Staneczek, W., Mohner, M., Konetzke, G., Muller, W., Ahlendorf, W., Beck, B., Winkelmann, R. and Simonato, L. 1990.A mortality study of a cohort of slate quarry workers in the German Democratic Republic.http://www.ncbi.nlm.nih.gov/pubmed/2164503. Accessed on Sept. 26, 2012.

Meijer, E., Kromhout, H. and Heederik, D. 2001. Respiratory effects of exposure to low levels of concrete dust containing crystalline silica. *American Journal Industrial Medicine*, 40:133-140.

Mendelsohn, O. 1991. Life and struggles in the stone quarries of India: a case study. *The Journal of Commonwealth and Comparative Politics*, 29 (1): 44-71.

Mendez, M.O. and Maier, R.M. 2008.Phyto-stabilization of mine tailings in arid and semiarid environments-An emerging remediation technology. *Environmental Health Perspectives*, 116: 278-283.

Menezes, R., Ferreira, H., Neves, G., Libra, H. and Ferreira H. 2005.Use of granite sawing wastes in the production of ceramic bricks and tiles. *Journal of the European Ceramic Society*, 25: 1149-1154.

Mensah, J.V. 2002.Causes and effects of coastal sand mining in Ghana. *Singapore Journal of Tropical Geography*, 18: 69-88.

Merchant, C. 2002. Mining the Earth's Womb, In *Environmentalism: Critical Concepts-II*, eds., Pepper, D., Webster, F. and Revill, G., Routledge Publishers, London, UK: 339-358.

Meulen, M.J.V.D., Kleine, M.P.E.D., Veldkamp, J.G., Dubelaar, C.W. and Pietersen, H.S. 2004. The sand extraction potential of embedded land surface lowering in the Netherlands. *Netherlands Journal of Geo-sciences*, 83(2): 147-151.

Miller, B.G. and Soutar, C.A. 2007. Observed and predicted silicosis risks in heavy clay workers. *Journal of Occupational Medicine*, 57: 569-574.

Mirnova, A.V. 1990. Remote sensing for change detection in mining regions. In *Proceeding of the Regional Seminar on Remote Sensing Applications for Geotectonic Mapping and Minerals Exploration*, ed., Information and Communications Technology and Disaster Risk Reduction (IDD), Tbilisi, USSR: 111-112.

Mishra, D., Bhttacharya, D.K. and Barla, V.C. 2003. Ambient SPM concentration around rock crushing industries of Daltonganj, Gumla Towns, Jharkhand and associated health effects. In *Proceedings of the National Seminar on Status of Environmental Management in Mining Industry*, eds.,Shrivastava, B.K., Kumar, R. and Jamal, A., BHU University Press, Varanasi: 12-19.

Mishra, J., Pandey, V., Singh, S.N., Singh, N., Yunus, M.

and Ahmed, K.J. 1993.Growth response of lycopersicum esculantum to cement dust treatment. *Journal of Environment Science and Health*, 28: 1774-1780.

Mishra, P.C., Mishra, B.K. and Tripathy, P.K. 2008. Socio-economic profile and quality of life index of sample households of mining areas in Talcher and IB Valley mines in Orissa. *Journal of Human Ecology*, 23(1): 13-20.

Mitchell, G.J. 2006. *Can gravel mining and water supply wells coexist?* Mitchell Centre for Environmental and Watershed Research, University of Maine, Research Report: l5.

Mohan, K.T.R. 1995. Captains of the sands: metropolitan hegemony in mining in Tiruvitamkur, 1900-50. *Economic and Political Weekly*, 30(52): 3365-3372.

Mohan, L. 2010. State bans mining in three Rivers. *Mining and Environment, Centre for Science and Environment-India Green File*, 265: 24.

Monforton, C. and Windsor, R. 2010. An impact evaluation of a federal mine safety training regulation on injury rates among US Stone, sand and gravel mine workers: an interrupted time series analysis. *American Journal of Public Health*, 100(7): 1334-1340.

Monjezi, M., Shahriar, K., Dehghani, H. and Namin, F.S. 2009.Environmental impact assessment of open pit mining in Iran. *Environmental Geology*, 58: 205-216.

Monteiro, S., Pecanha, L. and Vieira. C. 2004. Reformulation of roofing tiles body with addition of granite waste from sawing operations. *Journal of the European Ceramic Society*, 24: 2349-2356.

Moreno-Penaranda, R., Lloret, F. and Alcaniz, J. M. 2004. Effects of sewage sludge on plant community composition in restored limestone quarries. *Restoration Ecology*, 12: 290-296.

Morgan, P.G. 2000. Mineral extraction in a green and pleasant land: what are the effects of sustainable development policies on aggregates quarrying in United Kingdom. *Mineral and Energy-Raw Material Report*, 15: 3-13.

Mossa, J. and Autin, W.J. 1998. Geologic and geographic aspects of sand and gravel production in Louisiana. In Aggregate Resources: *A Global Perspective*, ed., Bobrowsky, P.T., Taylor & Francis, Rotterdam, Netherland: 439-463.

Mossa, J. and McLean, M. 1997. Channel plan form and land cover changes on a mined river floodplain, Amite River, Louisiana, USA. *Applied Geography*, 17(1): 43-54.

Moudgil, R. 2011. Illegal unit threat to sanctuary.http://www.hindustantimes.com/India-news/Haryana/Illegal-unit-threat-to-sanctuary/Article1-693557.aspx. Accessed on July 3, 2012.

Mukhopadhyay, B., Bastias, L. and Mukhopadhyay, A. 2007. Limestone drain design parameters for acid rock drainage mitigation. *Mine Water and Environment*, 26(1): 29-45.

Mukhopadhyay, M.K and Sinha, I.N. 2002. Land degradation and need for restoration of mined land in Indian context. *Indian Journal of Environmental Protection*, 22(3): 23-30.

Mukhopadhyay, S. and Dey, N.C. 1998. Noise pollution in mining: a critical appraisal. *The Indian Mining and Engineering Journal*, 37(10); 23-26.

Murthy, M.S.R., Subramanian, S.K. and Dutt, C.B.S. 1997. *Environmental impact analysis of mining, Eastern Ghats, Andhra Pradesh using remote sensing data*. Dept. of Space, Govt. of India, Bangalore, NNRMS Bulletin, (B) 21: 30-35.

Musah, J.A. and Barkarson, B.H. 2009. *Assessment of sociological and ecological impacts of sand and gravel mining-a case study of East Gonja district (Ghana) and Gunnarshold (Iceland)*. Land Restoration Training Programme, Keldnaholt, Iceland, Technical Report No. GH-LRTP/2009-7: 75-106.

Mutluturk, M. 2007. Determining the amount of marketable blocks of dimensional stone before actual extraction. *Journal of Mining Science*, 43 (1): 67-72.

My, V.C. and Hoa, M.P.V. 2009. The effect of mining exploit for environment in Quang-Ninh Province. Presented at 7th FIG Regional Conferences on Spatial Data Serving People, Land Governance and their Environment Building the Capacity, Hanoi, Vietnam, October, 19-22, 2009, Abstract Book: 62.

Myers, G. 1999. Political ecology and urbanization: Zanzibar's construction materials industry. *The Journal of Modern African Studies*, 37(1): 83-108.

Naik, D.P., Ushamalini, and Somashekar, R.K. 2007a. Groundwater quality evaluation in stone quarry area. *Journal of Industrial Pollution Control*, 23(1): 15-18.

Naik, D.P., Ushamalini, and Somashekar, R.K. 2007b. Impact of quarry dust pollution and foliar epidermis of five species growing near stone crushing industry. *Journal of Industrial Pollution Control*, 23(1): 93-95.

Nair, G.K. 2009. Indiscriminate sand mining creates water shortage in Kerala. *Mining and Environment, Centre for Science and Environment-India Green File*, 257: 15.

Nair, G.K. 2010a. Kerala Rivers drying up due to excessive mining. *Mining and Environment, Centre for Science and Environment-India Green File*, 267: 25-26.

Nair, G.K. 2010b. Sand mining hits river tributaries in Kerala. *Mining and Environment, Centre for Science and*

Environment-India Green File, 269: 17.

Naja, G.M., Rivero, R., Davis-III, S.E. and Lent, T.V. 2011. Hydro-chemical impacts of limestone rock mining. *Water, Air and Soil Pollution*, 217: 95-104.

Nanda, P.R., Das, A.K. and Moharana, N.C. 2010. Stone crusher dust as a fine aggregate in concrete for paving blocks. *International Journal of Civil and Structural Engineering*, 1(3): 613-620.

Naronha, L. 2001. Designing tools to truck health and well being in mining regions of India. *Natural Resources Forum*, 25: 53-65.

Naronha, L. and Nairy, S. 2005. Assessing quality of life in a mining region. *Economic and Political Weekly*, 40(1): 72-78.

Nasab, S.M.M.M. and Mahesh, T.M. 2008. IT applications in open pit mines in Kerman province. *Indian Journal of Regional Science*, 40: 54-59.

Nath, P. and Nath, S. 1990. Environmental appraisal of the mining area in Dehradun-Mussoorie belt of UP Himalaya. *Environmental Pollution, Conservation and Planning*, 2: 182-196.

National Environmental Engineering Research Institute (NEERI). 2009. Mining activities have depleted water table in Sirigao. *Mining and Environment, Centre for Science and Environment-India Green File*, 257: 17.

National Institute for Occupational Safety and Health (NIOSH). 2000. Injuries, Illnesses, and Hazardous Exposures in the Mining Industry, 1986-1995: A Surveillance Report. Department of Health and Human Services, Washington D.C., U.S., Publication No. 2002-98: 1-16.

Navarro, A. and Carbonel, M. 2007. Assessment of groundwater contamination caused by uncontrolled dumping in old gravel quarries in the Beso's aquifers (Barcelona, Spain). *Environmental Geochemistry and Health*, 30: 273-289.

Nawaz, F., Hamidullah, and Fayaz, A. 2003.The effects of mining on geomorphology (detection of changes by using remote sensing techniques). Presented at the National Conference on Role of Remote Sensing in Natural Resource Management, Peshawar, Pakistan, November, 18-20, 2003, Abstract Book: 16.

Naydenova, V. and Roumenina, E. 2009.Monitoring the mining effect at drainage basin level using geo-information techniques. *Central European Journal of Geosciences*, 1(3): 318-339.

Nelles, P.L. 1998. Worldwide dimension stone granite mining. *Natural Resources and Development*, 47: 99-116.

Ng, T.P. and Chan, S.L. 1992.Lung function in relation to silicosis and silica exposure in granite workers. *European Respiratory Journal*, 5(8): 986-991.

Nicieza, C.C., Castro, J.T., Diaz, A.A. and Vigil, A.E. 1997. Geological risk in slag heaps of roofing slate in Spain. *International Journal of Surface Mining, Reclamation and Environment*, 11: 145-150.

Nieman, T.J. and Tamerkin, Z.R. 1995. Wildlife management, surface mining and regional planning. *Growth and Change*, 26(3): 405-425.

Nij, E.T., Burdorf, A., Parker, J., Attfield, M., Duivenbooden, C.V. and Heederik, D. 2003. Radiographic abnormalities among construction workers exposed to quartz containing dust. *Journal of Occupational and Environmental Medicine*, 60(6): 410-417.

Nnabo, P.N. and Taiwo, A.O. 2001.A Historical survey of solid minerals exploitation and associated problems with examples from parts of Nigeria. *Journal of Environmental Sciences*, 4(2): 42-54.

Norman, D.K., Cederholm, C.F. and L-ingley, W.S. 1998.Floodplains, salmon habitat and sand and gravel mining. Washington Geology, 26: 3-28.

Novak, J. and Prach, K. 2003. Vegetation succession in basalt quarries: pattern on a landscape scale. *Applied Vegetation Science*, 6: 111-116.

O'flynn, M.L. 1990. Sand, gravel and coal resources of the Brisbane River and Moreton Bay. In The Brisbane River, *A Source-Book for the Future*, eds., Davie, P.J.F., Stock, E.C. and Low-Choy, D.C., Australian Littoral Society and Queensland Museum, Brisbane: 307-311.

O'flynn, M.L. 2000. Manufactured sands from hard rocks quarries: environmental solution or dilemma for Southeast Queensland. *Australian Journal of Earth Science*, 47(1): 65-73.

Obeng, E. 2010. *Environmental and socio-economic impact of surface mining in Ghana: a case study of some mining areas in western region*. M.A. dissertation, Department of Economics, University of Ghana, Ghana: 17-48.

Obiekezie, S.O., Okereke, J.N., Anyalogbu, F., Okorondu, S.A. and Ezejiofor, T.I.N. 2006.Underground water quality of rock mining area in Ishiagu, Ebonyi State Nigeria. *A Revista Estudos de Biologia*, 28(63): 61-71.

Ololade, O., Annegarn, H., Limpitlaw, D. and Kneen, M. 2008. Mapping the status of mining waste using Landsat data in the Rustenburg region. Presented at 7th AARSE International Conference on Earth Observation and Geo-information on Governance in Africa, Accra, Ghana, October 27-30, 2008, Abstract Book: 43.

Onwuchekwa, L.S., Etok, C.A., Ogbonna, E.E. and Ezekwe. 2009. Effects of mine water on agricultural soil quality in Ishiagu, Ebonyi State, Nigeria. *Nigerian Journal of Microbiology*, 23(1): 1823-1829.

Organiscak, J.A. and Reed, W.M.R. 2004. Characteristics of fugitive dust generated from unpaved mine haulage roads. *International Journal of Surface Mining*, 18(4): 236-252.

Ostenson, O. 1996.A brief background on social issues and mining. Presented at the Asia-pacific workshop on managing the social impacts of mining, U.N.C.T.A.D., Management of Commodity Resources in the context of Sustainable Development: Social Impacts of Mining, Bandung, Indonesia, October 14-15, 1996, Abstract Book: 102-103.

Owen, J. and Kemp, D. 2013. Social license and mining: a critical perspective. *Resources Policy*, 28(1): 29-36.

Owen, P., Damian, M. and Charmaine, T. 2005. Poor recovery of woody vegetation on sand and gravel mines in the Darwin region of the Northern Territory. Ecological Management and Restoration, 6(2): 118-123.

Ozer, U., Kahriman, A., Aksoy, M., Adiguzel, D. and Karadogan, A., 2008.The analysis of ground vibrations induced by bench blasting Akyal quarry and practical blasting charts. *Environmental Geology*, 54: 737-743.

Ozturkmen, A.R. and Kavdir, Y. 2012. Comparison of some quality properties of soil around land-mined areas and adjacent agricultural fields. *Environmental Monitoring and Assessment*, 184(3): 1633-1643.

Padhy, P.K. 2013.Effects of stone crusher's pollution on plant morphology and biochemistry. *The Ecoscan, Special Issue*, 3: 307-313.

Padmalal, D. 2006. River sand mining and its impact on the bio-physical environment of Kerala Rivers. Presented at The National Seminar on Sand and Clay Mining: Present Status and Future Implications, St. Joseph's College, Iringalakuda, Kerala, India, August 17-18, 2006, Abstract Book: 1-4.

Padmalal, D. Maya, K., Mini, S.R. and Arun, P.R. 2003. Impact of river sand mining: a case of Greater Kochi Region, Southwest coast of India. In *Water Resources System Operations*, eds. Singh, V.P. and Yadava R.N., Allied Publishers Pvt. Ltd., New Delhi: 48-59.

Padmalal, D., Maya, K., Sreebha, S. and Sreeja, R. 2008. Environmental effects of river sand mining: a case from the river catchment of Vembanad Lake, Southwest coast of India. *Environmental Geology*, 54: 879-889.

Pal, D. 2009.Geological aspects of environmental degradation due to mining activity in parts of *Sirmaur District, Himachal Pradesh*, India. Ph.D. dissertation, Department of Geology, Punjab University, Chandigarh: 281-292.

Pandey, A.K., Dutta, S. and Sharma, K.C. 2002. Impact of marble slurry on subsurface water-a case study of Kishangarh, District Ajmer. *Nature, Environment and Pollution Technology*, 1(1): 5-11.

Pandey, A.K., Dutta, S. and Sharma, K.C. 2005. Environmental degradation due to marble mining dust on soil quality of Makarana, Nagaur (Rajasthan), India. *Journal of Industrial Pollution Control*, 21(1): 139-146.

Pandey, D., Goyal, S. and Sexsena, R. 1995. Environmental change detection and ground water mapping around cement industries using IRS-IB data: a case study of Nayagaon-Khor area of Mandsour District, M.P. In *Proceedings ISRS Silver Jubilee Year Symposium on Remote Sensing for Environmental Monitoring and Management with Special Emphasis on Hill Regions and Annual Convention of Indian Society of Remote Sensing, IIRS, Dehradun*, ed., Indian Society of Remote Sensing, A Joint ISRS-NNRMS Publication, Dehradun, Utrakhand, India: 398.

Pandey, D.D. and Kumar, S. 1996. Impact of cement dust pollution on biomass, chlorophyll, nutrients and grain characteristics of wheat. *Environment and Ecology*, 14: 872-875.

Pandey, D.D. and Nand, S. 1995. Effect of stone crushers dust pollution on grain characteristic of Maize. *Environmental Ecology*, 13: 901-903.

Pandey, D.D. and Simba, A.K. 1990. Effect of cement kiln dust on chlorophyll in wheat leaf. *Environment Ecology*, 18(1): 461-463.

Pandey, D.D., Nirala A.K. and Gaulam, R.R. 1999.Impact of stone crusher dust pollution on maize crop. *Indian Journal of Environment and Eco-planning*, 2: 43-46.

Pandey, D.D., Nirala, A.K. and Gautam, R.R. 2003. Impact of stone crusher dust pollution on biomass and chlorophyll of maize crop. In *Dimensions of Environmental Threats*, ed., Kumar, A., Daya Publishing House, New Delhi, India: 137-140.

Pant, D.N. and Kharkwal, S.C. 1996. Environmental problems in Himalaya Region of Uttar Pradesh and remote sensing solutions. In *Geography and Environment*, eds., Nag, P., Kumara, V.K. and Singh, J., National Issue-I, Concept Publishing Company, New Delhi, India: 212-225.

Pant, D.N. and Singh, M.P. 1992. A geological study of Mussorie for environmental changes detection. In Proceedings of the *International Seminar on Geo-systems, Perspective for 21st Century, Environmental Monitoring Applications of Remote Sensing and GIS*, ed., Singh, R.B., Delhi University, Delhi, India: 179-192.

Pant, D.N., Groten, S.M.E. and Roy, P.S. 2000. Forest

vegetation/ land use change detection and impact assessment in part of western Himalaya. *International Archives of Photogrammetry and Remote Sensing*, Amsterdam, 33(B-7): 111-118.

Panwar, P. and Bhardwaj, S.D. 2000. Performance of shrubs in sand and lime stone mines of Himachal Pradesh. *The Indian Forester*, 126(3): 279-283.

Pathania, M.S., Vashist, G.D., Sharma, K.D. and Lal, H. 2010. Livelihood dependence on common property land resources-a field study in Himachal Pradesh. *Journal of Rural Development, NIRD, Hyderabad*, 29(2): 125-139.

Patil, A. 2010. HC ban on sand extraction cripples construction work. http://www.mumbaimirror.com/index.aspx?page=article&sectid=2&contentid=20101017 20101017042528674c729e8ce.Accessed on Dec. 13, 2012.

Patil, M.A. 2001. Environmental management scenario in stone crusher industry sector and cleaner production possibilities. *TERI Information Monitor on Environmental Science*, 6 (2): 83-92.

Paul, H. 1997. The consequences of sand and gravel mining within and adjacent to river stream channels in Mississipi and Louisiana. Presented at the Southern Division of the American Fisheries Society (AFS) Mid-year Meeting, Camberley, Gunter Hotel, San Antonio, Texas, February 13-16, 1997, Abstract Book: 46-48.

Paull, D., Banks, G., Ballard, C. and Gillieson, D. 2006. Monitoring the environmental impact of mining in remote locations through remotely sensed data. *Geocarto International*, 21(1): 33-42.

Pavloudakis F.F. 2013. Environmental and socioeconomic impacts of surface mining operations: A review of the Greek experience. http://investor.kr-ustecky.cz/reregionsmezinarodni_konference_most/C1B07TEN.PDF. Accessed on March 11, 2013.

Peckenham, J.M., Thornton, T. and Whalen, B. 2009. Sand and gravel mining: effects on ground water resources in Hancock county, Maine, USA. *Environmental Geology*, 56: 1103-1114.

Peiffer, S., Beierkuhnlein, C., Hofmann, A.S., Kaupenjohann, M. and Bar, S. 1997. Impact of high aluminum loading on a small catchment area (Tnuringia Slate Mine Area): Geochemical transformation and hydrological transport. *Water, Air and Soil Pollution*, 94: 401-416.

Peiter, C., Boas, R.C.V. and Shinya, S. 2000. The stone forum: implementing a consensus building methodology to address impacts associated with small mining and quarry operations. *Natural Resource Forum*, 24(1): 1-9.

Pereira, M.P.D., Queiroz, J.M., Valcarcel, R. and Mayhe-Nunes, A.J. 2007. Ant fauna as a tool for the monitoring of a rehabilited sand mine at Ilha da Madeira, Itaguai, RJ. *Ciencia Florestal*, 17: 197-204.

Petit, F., Poinsart, D. and Bravard, J.P. 1996. Channel incision, gravel mining and bedload transport in the Rhone River upstream of Lyon, France (canal de Miribel). *Catena*, 26: 209-226.

Pinto, V., Font, X., Salgot, M., Tapias, J. and Mana, T. 2002. Image analysis applied to quantitative evaluation of chromatic impact generated by open pit quarries and mines. *Environmental Geology*, 41: 495-503.

Pinto, V., Font, X., Salgot, M., Tapias, J.C. and Mana, T. 2002.Using 3-D structures and their virtual representation as a tool for restoring opencast mines and quarries. *Engineering Geology*, 63(1-2): 121-129.

Poulin, R. and Sinding, K., 1993. Mining economics and the environment. *Natural Resources Forum*, 17(2): 157-163.

Poulin, R., Pakalnis, R.C. and Sinding, K. 1994. Aggregate resources: production and environmental constraints. *Environmental Geology*, 23: 221-227.

Prasad, M.S.V. and Inamdar, J.A. 1990. Effect of cement kiln dust pollution on blackgram (Vigna munga L. Hepper). *Proceedings of India Academic Science (Plant Science)*, 100(6): 435-443.

Prasad, M.S.V., and Inamdar, J.A. 1991. Effect of cement kiln dust pollution on growth and yield of Vigna sp. *Indian Journal of Ecology*, 18: 91-94.

Prasad, M.S.V., Subramanian, R.B. and Inamdar, J.A. 1991. Effect of cement kiln dust on Cajanus Cajan (L.) Mill. Species. *Indian Journal Environmental Health*, 33: 11-21.

Priester, M. and Hentschel, T. 1992.Environmental and health risks due to mining activities in the developing countries. *Natural Resource and Development*, 37: 66-81.

Pyatt, F.B. and Grattan, J.P. 2001. Some consequences of ancient mining activities on the health of ancient and modern human populations. *Journal of Public Health and Medicine*, 23(3): 235-236.

Raajasubramanian, D., Sundaramoorthy, P., Baskaran, L., Ganesh, K.S., Chidambaram A.A. and Jeganathan M. 2011.Effect of cement dust pollution on germination and growth of groundnut. *International Multidisciplinary Research Journal*, 1(1): 25-30.

Raghavswamy, V., Kumar, A. and Paliwal, R. 2008.Application of GPS and GIS in satellite remote sensing assessment of landuse and land resource pattern in the limestone mining area and environs at Wadi, Gulbarga

District, Karnataka. http://www.gisdevelopment.net/application/environment/conservation/ envm0008pf.htm. Accessed on April 16, 2012.

Rai, K.L. 1994. Geological and Geo-environmental Constrain in small-scale mining in Himalayan Mineral Deposits-selected case studies. In *Small scale Mining-A Global Overview*, ed.,Ghose, A.K., Oxford and IBH Publishing Co., New Delhi, India: 51-64.

Raina, A.K., Rathore, V. and Sharma, A. 2008.Effect of stone crusher dust on leaves Melia azadarach linn.and Dalbergia Sissoo Roxb in Jammu (J&K). *Natural Environment and Pollution Technology*, 7: 279-282.

Rajlakshmi, T.K. 2004.Breath to death. *Front Line*, 21(15): 17-30.

Rajvanshi, A. and Srivastava, M.M. 1990. Impact of lime industry in Doon Valley: some environmental observation. In *Himalaya: Environment Resource and Development*, eds.,Shah, K.N., Bhatt, D.S. and Pande, K.R., Shree Almora Publishers, Almora, India: 54-63.

Ranade, P. 2007. Environmental impact assessment of land use planning around the leased limestone mine using remote sensing technique. *Iran Journal of Environmental Health Science and Engineering*, 4(1): 61-65.

Rao, A.V. and Tak, R. 2002. Growth of different tree species and their nutrient uptake in limestone mine spoil as influenced by Arbuscular mycorrhizal (AM)-fungi in Indian arid zone. *Journal of Arid Environments*, 51: 113-119.

Rao, A.V., Tarafdar, J.C. and Tak, R. 2000. Improvement in the microbiological productivity of limestone mine spoils with time. *Agrochimica*, 44: 171-179.

Rao, B.B. 1996. Environmental matrix applicable to mining industry. *The Indian Mining and Engineering Journal*, 35(7): 13-17.

Rao, B.M. and Sapare, G. 2003. Waste minimization and cleaner production opportunities in stone crusher industries. *APPCB Information Bulletin*, 114: 1-6.

Rao, M.C. 2006. Sand mining: ground water depletion in Papagani catchment. *Economic and Political Weekly*, 41(7): 593-594.

Rao, M.V. 2004.Mining the mainstream. *Mainstream*, 42(33): 4-5.

Rao, S. 1991. Effect of cement dust on stomatal structure. *Ecology, Environment and Conservation*, 1: 7-9.

Rao, V.V.N. and Rao, S.V.R. 1990. Environmental Impact of mining and management: an appraisal from the mining regions of Andhra Pradesh. In *Proceeding of National Seminar on Thrust Areas in the Application of Remote Sensing*, eds., School of Earth Sciences, Bhartidasan University, Triuchirapalli, India: 39-40.

Rao, Y.R., Kumar, V. and Kumar, S. 2000. Mining in fragile areas-the challenges: a case study of captive mine of Ambuja Cement, Himachal Pradesh. In *Mining Challenges of the 21st Century*, eds., Ghose, A.K. and Dhar, B.B., APH Publishing Corporation, Delhi, India: 381-387.

Ravikumar, R., Shadaksharaswamy, N. and Somashekar, P.K. 2000.Soil fertility status of land around granite quarries and crushing sites of Bangalore district. *Journal of Ecology, Environment and Conservation*, 6(4): 467-469.

Reddy, G.V.G., Chowdary, K.P. and Raghuram, P. 2007. Prevalence of respiratory diseases in the stone crushing workers of Paraercherla (Near Guntur). *The Lancet Oncology*, 18: 1904-1908.

Rego, G., Martinex, C., Quero, A., Blanco, T.P. and Borque, J.M.F. 2001. The effects of dust inhalation on slate industry workers. *Med Clin (Barc)*, 116: 290–291.

Ren, T.X. and Reddish, D.J. 1999. Computer modeling of geo-technical and environmental problems associated with mining and mine closure. *International Journal of Surface Mining Reclamation and Environment*, 13: 179-183.

Rice, F.L., Park, R., Stayner, L., Smith, R., Gilbert, S., Checkoway, H. 2001. Crystalline silica exposure and lung cancer mortality in diatomaceous earth industry workers: a quantitative risk assessment. *Occupational and Environmental Medicine*, 58: 38-45.

Rinaldi, M., Wyzga, B. and Surian, N. 2005.Effects of sediment mining on channel morphology and environment in alluvial rivers. *River Research and Application*, 21(7): 805-828.

Rizzo, G., Agostino, F.D. and Ercoli, L. 2008. Problems of soil and ground water pollution in the disposal of marble slurries in N.W. Sicily. *Environmental Geology*, 55: 929-935.

Ronnie. 2006. Illegal sand mining affecting bird life. http://bengalun1.yulop.com.Accessed on July 12, 2011.

Ross, M.H. and Murray, J. 2004. Occupational respiratory diseases in mining. *Occupational Medicine*, 54: 304-310.

Rovira, A., Batalla, R.J. and Sala, M. 2005. Response of a river sediment budget after historical gravel mining (The Lower Tordera Ne Spain). *River Research and Applications*, 21: 829-847.

Rowe, E.C., Williamson, J.C., Jones, D.L., Holliman, P. and Healey, J.R. 2005. Initial tree establishment on blocky quarry waste ameliorated with hydrogel or slate processing fines. *Journal of Environmental Quality*, 34: 994-1003.

Roy, S.C., Srivastava, S.K. and Singh, R.K. 1996.Geo-

environmental impact assessment of slate mining in Kangra district, Himachal Pradesh. *Visesa Prakasana-Bharatiya Bhuvaijnanika Sarveksana*, 2: 243-248.

Saboya, F., Xavier, G., and Alexandre, J. 2007.The use of powder marble by-product to enhance the properties of brick ceramic. *Construction and Building Materials*, 21: 1950-1960.

Saha, D.C. and Padhy, P.K. 2011.Effects of stone crushing industry on Shorea robusta and Madhuca indica foliage in Lalpahari forest. *Atmospheric Pollution Research*, 2: 463-476.

Saini, Y., Bhardwaj, N. and Gautam, R. 2011. Effects of marble dust on plants around Vishwakarma industrial area (VKIS) in Jaipur, India. *Journal of Environmental Biology*, 32: 209-212.

Sainz, A., Grande, J.A., de-la-Torre, M.L. and Sanchez-Rodas, D. 2002. Characterization of sequential leachate discharge of mining waste rock dumps in the Tinto and Odiel Rivers. *Journal of Environmental Management*, 64(4): 345-353.

Salami, A.T., Farounbi, A.I. and Muoghalu, J.I. 2002.Effects of cement production on vegetation in a part of Southwestern Nigeria. *Tanzania Journal of Science*, 28(2): 70-82.

Sanderson, E.W., Jaiteh, M., Levy, M.A., Redford, K.H., Wannebo, A.V. and Woolmer, G. 2002.The human footprint and the lost of the wild. *Bioscience*, 52(10): 891-904.

Santo, E.L. and Sanchez, L.E. 2002. GIS applied to determine environmental impact indicators made by sand mining in a floodplain in southeastern Brazil. *Environmental Geology*, 41: 628-637.

Saralabai, V.C. and Vivekanandan, M. 1992. Positive effect of cement kiln-exhaust on Legume crop under simulation study. *Applied Biochemistry and Biotechnology*, 36: 36-46.

Saralabai, V.C. and Vivekanandan, M. 1995. Effect of application of cement exhaust on germination and seedling growth of legumes. *Indian Journal of Plant Physiology*, 3: 257-259.

Saritha, D. Sajikumar, S. and Machado, T. 1996. Sand and clay mining in the Vamanapuram River basin and its environmental impacts. In Proceedings of the 8th *Kerala Science Congress on Biotechnology for Development*, ed., Iyengar, P.K., Kochi, Kerala, India: 20.

Satao, R.N., Kene, H.K., Nalamwar, R.V. and Ulemale, R.B. 1993. Effect of cement dust pollution on growth and yield of cotton. *Annual Review of Plant Biology*, 7: 73-77.

Schiffbauer, W.H. 1999. A workplace safety device for operators of remote-controlled continuous mining machines. *American Journal of Industrial Medicine*, 1: 69-71.

Sear, D.A. and Archer, D.R. 1998. The effects of gravel extraction on the stability of gravel bed Rivers: a case study from the Wooler Water, Northumberland, U.K. In *Proceedings of the 4th International Gravel-Bed Rivers Conference on Gravel-bed Rivers in the Environment*, eds.,Klingeman, P.C., Beschta, R.L., Komar, P.D. and Bradley, J.B., Water Resources Publications, Colorado, USA: 415-432.

Sebastian, S. 2003. Rajasthan: mine over matter. *The Hindu Survey of the Environment*, 117-121.

Sebastian, S. 2006. Rajsamand Lake: death by mindless mining. *The Hindu Survey of the Environment*, 109-108.

Selvakumar, R., Venkantaraman, R. and Sundaravaradarajan, K.R. 2008, Effects of sand mining on economic performance of ground water irrigation in Cuddalore district of Tamil Nadu. *Agricultural Economics Research Review*, 21(2): 183-190.

Semple, S., Green, D.A., McAlpine, G., Cowie, H. and Seaton, A. 2008.Exposure to particulate matter on an Indian stone-crushing site. *Journal of Occupational and Environmental Medicine*, 65(5): 300-305.

Sengupta, S. 1997. Assessment of the spatial distribution of the water quality in a mining industrial region using GIS. *Geographical Review of India*, 59(4): 340-345.

Sevinc, C., Cimrin, A.H., Manisali, M., Yalcin, E. and Alkan, Y. 2003 Sandblasting under uncontrolled and primitive conditions in Turkey. *Journal of Occupational Health*, 45: 66-69.

Shank, M. 2009. Mapping vegetation change on a reclaimed surface mine using QuickBird. In *National Meeting of the American Society of Mining and Reclamation, Revitalizing the Environment: Proven Solutions and Innovative Approaches*, ed.,Barnhisel, R., ASMR, Billings, MT, USA: 12-17.

Shareef, N.M. 2007. Offshore sand: an alternative. *Current Science*, 93(4): 442-443.

Sharma, C.P. and Sharma, V. 1991. Effect of cement dust pollution on enzyme activity in some tree species growing around associated cement companies Ltd. *Acta Ecologica Sinica*, 13: 99-120.

Sharma, D.K., Saharan, M.R. and Parihar, S.K., 1996.Evaluation of landuse potential for quarrying area around Ramganjmandi (Kota, Rajasthan), India. *International Journal of Surface Mining and Reclamation and Environment*, 10(1): 13-16.

Sharma, K.D., Kumar, S. and Gough, L.P. 2000. Rehabilitation of land mined for limestone in the Indian

desert. *Land Degradation and Development*, 11: 563-574.

Sharma, K.D., Kumar, S., Sharma, B.K. and Gough, L.P. 1999. Rehabilitation of mine wasteland in Western Rajasthan, In *Management of Arid Ecosystem*, eds., Faroda, A.S., Joshi, N.L., Kathju, S. and Kar, A., Scientific Publishers, Jodhpur, Rajasthan, India: 73-80.

Sheeba, P. and Arun, P.R. 2003. Impact of sand mining on the biological environment of Ithikkara River-an overview. In *Proceedings of the 15th Kerala Science Congress on Human Resource Development and Management*, ed., Valiathan, M.S., Thiruvananthapuram, Kerala, India: 806-807.

Sheoran, A.S. and Sheoran, V. 2009. Factors affecting the reclamation of abandoned mine land. *International Journal of Environment and Development*, 6(2): 117-135.

Sheoran, A.S., Sheoran, V. and Choudharya, R.P. 2008. Post mining land use. *Mining Engineering Journal*, 10(5): 8-14.

Shrestha, R.K. and Lal, R. 2008. Land use impacts on physical properties of 28 years old reclaimed mine soils in Ohio. *Plant and Soil*, 306: 249-260.

Shukla, R.K. 2000.Impact of geology and mining on human health. *The Indian Mining and Engineering Journal*, 39(5): 25-30.

Sifakis, N. and Deschamps, P.Y. 1992. Mapping of air pollution using SPOT satellite data. *Photogrammetric Engineering and Remote Sensing*, 58(10): 1433-1437.

Silva, E.F.D., Fonseca, E.C., Matas, J.X., Patinha, C., Reis, P. and Oliveira, J.M.S. 2005. The effect of unconfined mine tailings on the geo-chemistry of soil, sediments and surface waters of the Lousal area in Southern Portugal. *Land Degradation and Development*, 16: 213-228.

Simonini, R., Ansaloni, L., Bonvicini, P.A.M., Cavallin, F., Iotti, M., Mauri, M., Montanari, G., Preti, M., Rinaldi, A. and Prevedelli, D. 2005. The effects of sand extraction on the macrobenthes of a relict sand area: results 12 months post extraction. *Marine Pollution Bulletin*, 50(7): 768-777.

Sinclair F.L., Letheren B. and Healey, J.R. 2009.Opportunities for ecological restoration of quarry sites around Kota in Rajasthan.http://www.marshalls.co.uk/sustainability/publications/pdfs/Bangor_Final_Ecology_Report_2009.pdf. Accessed on July 2, 2013.

Singh, A.N., Raghubanshi, A.S. and Singh, J.S. 2004. Impact of native tree plantations on mine spoil in a dry tropical environment. *Forest Ecology and Management*, 187: 49-60.

Singh, B., Katiyar, V.S. and Dwivedi, V.K. 1991. Characteristics of limestone mined lands. a review. Indian *Journal of Soil Conservation*, 19: 79-82.

Singh, D. and Sood, M. 2011. Economics of mining and environmental degradation in Dhramshala.Presented at APG 12th National Conference on Mountain Environment and Natural Resource Management, Himachal Pradesh University, Shimla, India, October 08-09, 2011, Abstract Book: 23.

Singh, G., Mehta, K.K., Sharma, R.C., Chawla, K.L., Joshi, P.K. and Yaduvanshi, N.P.S. 2007. Sand mining or no mining in agriculture fields in Haryana. Central Soil Salinity Research Institute, Karnal, Haryana, India, Technical Report: 1-28.

Singh, G., Pal, A. and Khoiyanbam, R.S. 2009. Impact of mining on human health in and around Jhansi, Bundelkhand region of Uttar Pradesh, India. *Journal of Eco-physiology and Occupational Health*, 9(1-2): 19-27.

Singh, K.K.K. and Chauhan, R.K.S. 2002. Exploration of subsurface strata conditions for a limestone mining area in India with ground penetrating radar. *Environmental Geology*, 41: 966-971.

Singh, O., Kumar, C.S. and Ranjan, R. 1997. Impact of mining activities on surface water quality: a case study. *National Geographical Journal of India*, 43(4): 354-360.

Singh, O.P. 2005. Minerals and mining in India and its environmental implications, Part-I, Minerals and Mining. In *Mining Environment: Problems and Remedies*, ed., Singh, O.P., Regency Publishers, New Delhi, India: 14-21.

Singh, R. 2010. Illegal mining threatens Sariska. *Mining and Environment, Centre for Science and Environment-India Green File*, 274: 15-16.

Singh, R.B. 2000.Impact of stone crusher dust pollution on tomato (Lycopersicum esculentum) in the Sonbhadra district of U.P. *Journal of Environmental Pollution*, 7: 235-239.

Singh, S.K., Chowdhary, G.R. and Purohit, G. 2006. Assessment of impact of high particulate concentration on peak expiratory flow rate of lungs of sand stone quarry workers. *International Journal Environmental Research and Public Health*, 3(4): 355-359.

Singh, S.K., Chowdhary, G.R., Chhangani, V.D. and Purohit, G. 2007. Quantification of reduction in forced vital capacity of sand stone quarry workers. *International Journal Environmental Research and Public Health*, 4(4): 296-300.

Singh, S.P. 1993. Prediction and determination of explosive induced damage. Presented at 4th International Symposium on Rock Fragmentation by Blasting, July 5-8, 1993, Vienna, Austria: 183-192.

Singh, T.N. and Rastogi, G. 2000. Environmental problems due to limestone quarry. In *Earth Resources and Environmental Issues*, eds., Sinha A.K. and Srivastva, P., ABD Publishers, Jaipur, Rajasthan, India: 57-68.

Sinha, R.K., Pandey, D.K. and Sinha, A.K. 2000. Mining and the environment: a case study from Bijolia quarrying site in Rajasthan, India. *The Environmentalist*, 20: 195-203.

Sinnett, D., Poole, J. and Hutchings, T.R. 2006.The efficacy of three techniques to alleviate soil compaction at restored sand and gravel quarry. *Soil Use and Management*, 22: 362-371.

Sivacoumar, R., Jayabalou, R., Swarnalatha, S. and Balakrishnan, K. 2006. Particulate matter from stone crushing industry: size distribution and health effects. *Journal of Environmental Engineering (ASCE)*, 132(3): 405-414.

Sivacoumar, R., Raj, S.M., Chinnadurai, S.J. and Jayabalou. 2009. Modeling for fugitive dust emission and control measure in stone crushing industry. *Journal of Environmental Monitoring*, 11(5): 987-997.

Sivakumar, M., Singh, R.N. and Morton, S.G.S. 1994. Mine water management and controls in an environmentally sensitive region. *Mine Water and the Environment*, 13(1): 27-39.

Skousen, J.G., Johnson, C.D. and Garbutt, K. 1994. Natural re-vegetation of 15 abandoned mine land sites in west-Virginia. *Journal of Environmental Quality*, 23: 1224-1230.

Somashekar, R.K., Ravikumar, R. and Ramesh, A.M. 1999. Impact of granite mining on some plant species around quarries and crusher of Bangalore district. *Pollution Research*, 18(4): 445-451.

Sonak, S., Pangam, P., Sonak, M. and Mayekar, D. 2006.Impact of sand mining on local ecology. In *Multiple Dimensions of Global Environmental Change*, ed., Sonak, S., Teri Press, New Delhi, India: 101-121.

Songara, G.K. and Rai, N. 2009.Assessment of soil quality in serpentinite (green marble) mining area of southern Rajasthan. *The Ecoscan: An International Quarterly Journal of Environmental Science*, 3(1-2): 161-164.

Soni, A.K. and Dube, A.K. 1995. Slate mining in Kangra Valley: a pilot study embodying environmental concerns. In Proceeding of 1st World Mining Environmental Congress, eds., Dhar, B.B. and Thakur, D.N., New Delhi, India: 733-748.

Soni, A.K. and Loveson, V. 2003. Land damage assessment- a case study. *Journal of Indian Society of Remote Sensing*, 31(3): 175-186.

Soni, A.K. 2007. Evaluation of hydro geological parameters associated with limestone mining- a case study from Chandrapur, India. *Mine Water and the Environment*, 28: 110-118.

Soni, P., Vasistha, H.B. and Kumar, O. 1992. Surface mined lands: problems and prospects. Division of Forest Ecology and Environment, Forest Research Institute, Dehradun, India, FRI Press Memo: 1-29.

Sreebha, S. and Padmalal, D. 2006. Sand mining and its environmental impacts on the river catchments of Vembanad Lake, Southwest India. In *Proceedings of the 18th Kerala Science Congress on Disaster Management*, ed., Muthunayagam, A.E., Thiruvananthapuram, Kerala, India: 365-367.

Sreebha, S. and Padmalal, D. 2011. Environmental impact assessment of sand mining from the small catchment rivers in the Southwestern coast of India: a case study. *Environmental Management*, 47: 130-140.

Sreeja, R., Maya, K., Rajesh, R. and Padmalal, D. 2003. In-stream sand mining from Periyar River and emerging environmental issues. In Proceedings of the 15th Kerala Science Congress on *Human Resource Development and Management*, ed., Valiathan, M.S., Thiruvananthapuram, Kerala, India: 806-807.

Sreekumar, S. and Thomas, K.J. 2004.Metamorphism of Muryad Kayal within Vembanand-Kal-wetland system due to human intervention. *Nature, Environment and Pollution Technology*, 3(2): 179-184.

Sreekumar, S. and Thomas, K.J. 2006.Impact of clay and sand mining in Thrissur Kole land. Presented at the National Seminar on Sand and Clay Mining: Present Status and Future Implications, St. Joseph's College, Iringalakuda, August 17-18, 2006, Abstract Book: 20-21.

Steenland, K. 2005. One agent, many diseases: exposure-response data and comparative risks of different outcomes following silica exposure. *American Journal of Industrial Medicine*, 48: 16-23.

Steenland, K. and Sanderson, W. 2001. Lung cancer among industrial sand workers exposed to crystalline silica. *American Journal of Epidemiology*, 153: 695-703.

Stern, D. 1995. The contribution of the mining sector to sustainability in developing countries. *Ecological Economics*, 13: 53-63.

Steve, B.M.S. 2004. *Environmental impacts of aggregate and stone mining in New Mexico*. Rural Conservation Alliance, Centre for Science in Public Participation, New Mexico, USA, Technical Report: 1-62.

Suarthana, E., Moons, K.G.M., Heederik, D. and Meijer, E. 2007.A simple diagnostic model for ruling out pneumoconiosis among construction workers. *Journal of*

Occupational and Environmental Medicine, 64(9): 595-601.

Sudhakar, P. 2009a. Brisk illegal sand mining through bullock carts. *Mining and Environment, Centre for Science and Environment-India Green File*, 261: 16.

Sudhakar, P. 2009b. Sand quarrying affects water quality, quantity. *Mining and Environment, Centre for Science and Environment-India Green File*, 254: 21.

Suhr, H., Bang, B. and Moen, B.E. 2003. Respiratory health among quartz exposed slate workers- a problem even today. *Occupational Medicine*, 53: 406-407.

Sukanya, S. 2009. Report say no illegal mining in Aravalis. *Mining and Environment, Centre for Science and Environment-India Green File*, 263: 19.

Sullivan, P.A., Bang, K.M., Hearl, F.J. and Wagner, G.R. 1995. Respiratory disease risks in the construction industry. *Occupational Medicine*, 10: 313-334.

Suri, R.K. 2000.Procedure for environmental clearance of mining projects. In Mining: Challenges of 21st Century, Ghose, A.K. and Dhar, B.B., APH Publishing Corporation, New Delhi, India: 389-403.

Suryawanshi, S. 2011. Developers bank on Pakistan sand to build Mumbai dreams. http://www.dnaindia.com/mumbai/report_developers-bank-on-pakistan-sand-to-build-mumbai-dreams_1518018.Accessed on December13, 2012.

Suwa, H., Mizuno, T., Suzuki, S., Yamamoto, K. and Ito, K. 2008. Sequential processes in a landslide hazards at a slate quarry in Okayama, Japan. *Natural Hazards*, 45: 321-331.

Swami, A. and Malik, S.L. 1990. Impact of stone dust on physiological functions and body size: data from Malis of Rajasthan. *Journal of Human Ecology*, 1(3): 305-309.

Swami, A. and Malik, S.L. 1998. Respiratory health effects of dust in female quarry workers of Rajasthan: an epidemiological study. *Journal of Human Ecology*, 9(4): 367-372.

Swami, A., Chopra, V.P. and Malik, S.L. 1994. Occupational health hazards in stone quarry workers: a multivariate approach. *Journal of Human Ecology*, 5 (2): 97-103.

Tamang, L. 2013. Quarrying activities along the lower Balason River in Darjeeling district, West Bengal. *Indian Journal of Spatial Science*, 4(1): 1-8.

Tepordei, V.V. 1995. National demand for crushed stone and sand and gravel. *West Virginia Geological and Economic Survey*, 46: 226.

Thakur, S. 2011. Economic and environmental implication of mining: a case study of Kamrau mines in District Sirmour (HP). Presented at 12th National Conference on Mountain Environment and Natural Resource Management, Himachal Pradesh University, Shimla, India, October 08-09, 2011, Abstract Book: 69.

Thomas, P.R. and Clarke, D. 1992. Vibration white finger and Dupuytren's contracture: Are they related? *Journal of Occupational Medicine*, 42: 155-158.

Thompson, R.L. and McKinney, L.E. 2006. Vascular flora and plant habitats of an abandoned limestone quarry at Center Hill Dam, DeKalb County, Tennessee. *Castanea*, 71: 54-64.

Thornton, I. 1996. Impacts of mining on the environment: some local, regional and global issues. *Applied Geochemistry*, 11: 355-361.

Tiwari, R.R., Narain, R., Sharma, Y.K. and Kumar, S. 2010. Comparison of respiratory morbidity between present and ex-workers of quartz crushing unit: healthy workers effects. *Indian Journal of Occupational and Environmental Medicine*, 14(3): 87-90.

Tiwari, R.R., Sathwara, N.G. and Saiyed, H.N. 2004. Serum copper levels among quartz stone crushing workers: a cross sectional study. *Indian Journal of Physiological Pharmacology*, 48(3): 337-342.

Tiwari, R.R., Sharma, Y.K. and Saiyed, H.N. 2005. Peak expiratory flow and respiratory morbidity: a study among silica-exposed workers in India. *Archives of Medical Research*, 36(2): 171-174.

Tiwari, R.R., Sharma, Y.K. and Saiyed, H.N. 2007. Tuberculosis among workers exposed to free silica dust. *Indian Journal of Occupational and Environmental Medicine*, 11(2): 61-64.

Torres, P., Fernandes, H., Olhero, S. and Ferreira, J. 2009. Incorporation of wastes from granite rock cutting and polishing industries to produce roof tiles. *Journal of the European Ceramic Society*, 29: 23-30.

Townsend, P.A., Helmers, D.P., Kingdon, C.C., McNeil, B.E., Beurs, K.M. and Eshleman, K.N. 2009. Changes in the extent of surface mining and reclamation in the Central Appalachians detected using a 1976-2006 Landsat time series. *Remote Sensing of Environment*, 113(1): 62-72.

Trivedi, M.L. and Singh, R.S. 1995. Reduction in protein contents in a few plants as indicators of air pollution. *Pollution Research*, 14: 269-273.

Tuncer, G., Kahriman, A., Ozdemir, K., Guven, S., Ferhatoglu, A. and Gezbul, T. 2003.The damage risk evaluation of ground vibration induced by blasting in Naipli Quarry. Presented at 3rd International Conference: Modern Management of Mine Producing, Geology and Environmental Protection, SGEM-2003, Varna, Bulgaria,

June 9-13, 2003, Abstract Book: 67-75.

Ulm, K. 2002. Risk assessment between silica dust and lung cancer. *Cancer Causes Controls*, 13: 779-780.

Ulm, K., Gerein, P., Eigenthaler, J., Schmidt, S. and Ehnes, H. 2004. Silica, silicosis and lung-cancer: results from a cohort study in the stone and quarry industry. *International Archive of Occupational and Environmental Health*, 77: 313-318.

Ulm, K., Waschulzig, B., Ehnes, H., Guldner, K., Thomasson, B., Schwebig, A. and Nuss, H. 1999. Silica dust and lung cancer in the German stone, quarrying, and ceramics industries: results of a case-control study. *Thorax*, 54: 347-351.

Uma, C.H. and Rao, T.V.R. 1996. Effect of cement kiln dust pollution on Hibiscus cannabinus L. *Geobios*, 23: 59-64.

United Nations Environment Programme (UNEP). 2000. Mining and sustainable development-II, Challenges and perspectives. *Industry and Environment*, 23, Special Issue: 12.

Uniyal, K. 2001. Incidence of Arbuscular mycorrhizal fungi in ecologically restored mined area of Doon Valley. *Indian Forester*, 127(6): 690-693.

Ursic, K.A., Kenkel, N.C. and Larson, D.W. 1997. Re-vegetation dynamics of cliff faces in abandoned limestone quarries. *Journal of Applied Ecology*, 34: 289-303.

Vagholikar, N. 2005. Undermining India: mine matters. *The Hindu: Survey of the Environment*, India: 99-103.

Van-Kruchten, Y.J.G 2008.A probabilistic analysis of the ecological effects of sand mining for Maasvlakte 2. M.Sc. dissertation, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Port Research Centre Rotterdam-Delft, Netherlands: 3-14.

Veiga, M.M., Scoble, M. and McAllister, M.L., 2001.Mining with communities. *Natural Resources Forum,* 25: 191-202.

Venkataraman, R. 1995. An appraisal of post mining: scenario of Dehradun Massoorie area, economic impacts. *Journal of Himalaya Geology*, 6(2): 67-73.

Verma, A. 1999. Environmental impact of mining in Himalayan region: case study of a mechanized limestone mine. *Asian Transport Journal*, 16: 1-10.

Vijayalakshmi, V., Singh, S. and Bhatnagar, D. 2003.Developmental efforts in R&D for gainful utilization of marble slurry in India.http://www.cdos-india.com/Papers%20technical.htm. Accessed on January 3, 2010.

Viswanath, S. 2002. Mining dangers. *Frontline*, 19(1): 102-108.

Wahid, A., Maggs, R., Shamsi, S.R.A., Bell, J.N.B. and Ashmore, M.R. 1995a. Effects of air pollution on rice yield in the Pakistan Punjab. *Environmental Pollution*, 90(3): 323-329.

Wahid, A., Maggs, R., Shamsi, S.R.A., Bell, J.N.B. and Ashmore M.R. 1995b. Air pollution and its impacts on wheat yield in the Pakistan Punjab. *Environmental Pollution*, 88(2): 147-154.

Walker, R.F. 2002c. Responses of Jeffrey pine on a surface mine site to fertilizer and lime. *Restoration Ecology*, 10: 204-212.

Walker, R.F. 2005 Growth and nutrition of Jeffrey pine seedlings on a Sierra Nevada surface mine in response to fertilization three years after planting. *Western Journal of Applied Forestry*, 20: 28-35.

Wang, Y, Dawson, R., Han, D., Peng, J., Liu, Z. and Ding, Y. 2001. Landscape ecological planning and design of degraded mining land. *Land Degradation and Development*, 12: 449-459.

Wang, Y. 2004. Environmental degradation and environmental threats in China. *Environmental Monitoring and Assessment*, 90(1-3): 161-169.

Warhate, S.R., Yenkie, M.K.N. and Pokale, W.K. 2007.Impacts of continuous mining on water and soil of Wani Region. *Journal of Scientific and Industrial Research*, 66(3): 777-784.

Warhurst, A., Macfarlane, M. and Wood, G. 1999. Issues in the management of the socio-economic impacts of mine closure: review of challenges and constraints. In *Environmental Policy of Mining*, Corporate Strategy and Planning for Closure, eds.,Warhurst, A. and Noronha, L., Lewis Publishers, Boca Raton, USA: 81-99.

Wasserman, D.E., Wilder, D.G., Pope, M.H., Magnusson, M., Aleksiev, A.R. and Wasserman, J.F. 1997.Whole body vibration and occupational work hardening. *Journal of Occupational and Environmental Medicine*, 39: 403-407.

Webber-Youngman, R.C.W. and vanWyk, E. 2009. Improving health and safety related education through virtual mining interactive simulations. http://www.saimm.co.za/Conferences/HardRockSafety2009/323-368_Webber.pdf. Accessed on May 17, 2012.

Weeks, J.M., Sims, I., Lawson, C. and Harrison, D.J. 2003. *River mining: assessment of the ecological effects of river mining in the Rio Minho and Yallahs rivers, Jamaica.* British Geological Survey, Commissioned Report No. CR/03/l62N: 53.

Wernstedt, K. and Cumming, A.M. 1999. Construction minerals in the Baltimore-Washington Metropolitan Area: a land management analysis. Resource for the future,

Discussion Paper- 99-13, Washingtone DC, USA: 1-32.

West, T.R. and Cho, K. 2006. Environmental and social issues associated with aggregate extraction: the Lafayette-West Lafayette, Indiana and other examples. *IAEG, Conference Paper No.* 692: 1-5.

Wheater, C.P. and Cullen, W.R. 1997. The flora and invertebrate fauna of abandoned limestone quarries in Derbyshire, United Kingdom. *Restoration Ecology*, 5: 77-84.

Wheater, C.P., Cullen, W.R. and Bell, J.R. 2000. Spider communities as tools in monitoring reclaimed limestone quarry landforms. *Landscape Ecology*, 15: 401-406.

White, J.A., Depuit, E.J., Smith, J.L. and Williams, S.E. 1992. Vesicular-arbuscular mycorrhizal fungi and irrigated mined land reclamation in southwestern Wyoming. *Soil Science Society of America Journal*, 56: 1464-1469.

White, R. 2013. Resource extraction leaves something behind: environmental justice and mining. *International Journal of Crime and Justice*, 2(1): 50-64.

Whitlow, R.J. 1990.Mining and its environmental impacts in Zimbabwe. *Geographical Journal of Zimbabwe*, 21: 53-59.

Wilcox, C.A., Chun, Y.M. and Choi, Y.D. 2005. Redevelopment of black oak (Quercus velutina lam.) savanna in an abandoned sand mine in Indiana Dunes National Lakeshore, USA. *American Midland Naturalist*, 154: 11-27.

William, R.F. and Wilson, L.J. 2002. Mining the data: analyzing the economic implications of mining for non-metropolitan regions. *Sociological Inquiry*, 72(4): 549-575.

Williams, D.J, Bigham, J.M., Cravotta, C.A., Traina, S.J., Anderson, J.E. and Lyon, J.G. 2002. Assessing mine drainage pH from the color and spectral reflection of chemical precipitates. *Applied Geo-chemistry*, 17(10): 1273-1286.

Willis, K.G. and Garrod, D. 1999. Externalities from extraction of aggregates regulation by tax or land-use controls. *Resources Policy*, 25: 77-153.

Wilson, F. 2001. Minerals and migrants: how the mining industry has shaped South Africa. *Dedalus*, 130(1): 99-122.

Wilson, R. 2002. Miners dig for sustainable development. *Journal of Mines, Metals and Fuels*, 50(1-2): 3-9.

Woldai, T. and Taranik, J. 2008. Environmental impact assessment of mining related dewatering activities using integrated INSAR, optical remote sensing and pumping data. *The International Archives of the Photogrammetry, Remote Sensing and Spatial information Science*, 37: 191-197.

Wong, O. 2002. The epidemiology of silica, silicosis and lung cancer: some recent findings and future challenges. *Annals of Epidemiology*, 12: 285-287.

Wright, P. and Stow, R. 1999. Detecting mining subsidence from space. *International Journal of Remote Sensing*, 20(6): 1183-1188.

Xiaohong, W., Hongfeng, N., Qinghua, Y., Jin, W. and Chengzun, L. 2004. Comparison of application results of high resolution satellite data in monitoring the developing status and the environment of the mines. *Remote Sensing for Land and Resources*, 59(1): 15-18.

Yadav, A.S., Gururaja K.V., Karthik, B., Rao, G.R., Mukri, V., Chandran M.D.S. and Ramachandra, T.V. 2009.Ecological status of Kali River flood plain.http://www.ces.iisc.ernet.in/energy/water/paper/ETR29/ETR29_index.pdf. Accessed on June 14, 2009.

Yadav, K.P.S. 2002. Mine games: politicians conduct mining operations by proxy to play havoc with the environment in Haryana. Down to Earth, November 15: 7-8.

Yadav, S.K. and Sengupta, G. 2009. Environmental and occupational health problems of child labour: some issues and challenges for future. *Journal of Human Ecology*, 28(2): 143-148.

Yadav, S.P., Anand, P.K. and Singh, H. 2011. Awareness and practices about silicosis among the sandstone quarry workers in desert ecology of Jodhpur, Rajasthan, India. *Journal of Human Ecology*, 33(3): 191-196.

Yang, C.Y., Huang, C.C., Chiu, H.F., Chiu, J.F., Lan, S.J. and Ko, Y.C. 1996. Effects of occupational dust exposure on the respiratory health of Portland cement workers. *Journal of Toxicology and Environmental Health*, 49: 581-588.

Yang, S.L., Zhao, Q. and Belkin, I.M. 2002.Temporal variation in the sediment load of the Yangtze River and the influences of human activities. *Journal of Hydrology*, 263: 56-71.

Yirenkyi, S. 2008. Surface mining and its socio-economic impacts and challenges, http://www.saimm.co.za/Conferences/SurfaceMining2008/181-202_Yirenkyi.pdf.Accessed on April 16, 2009.

Yuan, J.G., Fang, W., Fan, L., Chen, Y., Wang, D.Q. and Yang, Z.Y. 2006. Soil formation and vegetation establishment on the cliff face of abandoned quarries in the early stages of natural colonization. *Restoration Ecology*, 14: 349-356.

Yuan, L. and Chenkang, J. 1997. Impacts of sand mined in

the lower and middle reach of the Changjiang River on the riverbed evolution. *Yangtze River*, 28(7): 33-37.

Zeleznik, J.D. and Skousen, J.G. 1996. Survival of three tree species on old reclaimed surface mines in Ohio. *Journal of Environmental Quality*, 25: 1429-1435.

Zhang, B., Wu, D., Zhang, L., Jiao, Q. and Li, Q. 2012. Applications of hyper spectral remote sensing for environment monitoring in mining areas. *Environmental Earth Science*, 65: 649-658.

Zhangren, L, Xianlin, L. and Yang, G. 1999. Influence of human activities on the evolution of riverbed in the Pearl River Delta. *Tropical Geomorphology*, 20(12): 1-15.

Zhou, H., Van-Rompaey, A. and Wang, J. 2009.Detecting the impact of the "Grain for Green" program on the mean annual vegetation cover in the Shaanxi province, China using SPOT-VGT NDVI data. *Land Use Policy*, 26(4): 954-960.

Zhou, Z. 1995. Preliminary discussion on the impacts of sand dredging in the river on the flood control. *Yellow River*, 15(8): 16-17.

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