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Globalization Effect of Mining in India and Rajasthan

*Nidhi Vyas, Assistant Professor (Dr.) Kiran Soni
PHD Scholar, Faculty of Management Studies, Pacific Institute of Higher Education and Research University, Udaipur
Assistant Professor, Faculty of Management Studies, Geetanjali Institute of Management, Udaipur.
Corresponding Author: Nidhi Vyas

ABSTRACT
Globalization is the tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, thereby increasing the interconnection of the world. Mining resources are an important natural resource; Globalisation has led to an industrialisation boom while causing a downtrend in the agricultural sector. The entry of foreign capital in mining and steel plants has occurred at a fast pace. The Foreign direct investment (FDI) policy in the mining sector has been gradually liberalized over the last few years. FDI cap for exploration and mining of diamonds and precious stones have been increased to 100% under the automatic route with effect from 10th Feb, 2006. One of the amendments to mining law proposes that 26% of the profits from mining should be shared with people who are displaced because of the projects. Production in sectors such as mining is characterised by high capital intensity and economies of scale. The host countries may receive a few spills over benefits because of these factors but they also pay a high cost. There could be misallocation of the scarce natural resources, environmental damages and displacement of local small producers.

Keywords: *Meaning of Globalization, Globalization and Mining in India and Rajasthan, Mining and Displacements, Pollution Havens, Measures to protect the environment, foreign direct investment (FDI) Policy Implication*

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I. INTRODUCTION OF GLOBALIZATION

Globalization is the tendency of investment funds and businesses to move beyond domestic and national markets to other markets around the globe, thereby increasing the interconnection of the world. Globalization has had the effect of markedly increasing international trade and cultural exchange. Globalization is used to explain the recent integration of domestic economies, industries, cultures and government policies around the world. This integration has occurred through increases in the technological capabilities and efficiency of world trade, communication and transportation. Primarily, globalization refers to the economic integration of the global markets, but it is also used to describe the socio-cultural integration.

Sources:- http://www.authorstream.com/Presentation/ashwiniraj77-1745997-globalization/

Globalization is the action or procedure of international integration arising from the interchange of world views, products, ideas, and other aspects of culture Advances in transportation, telecommunications, infrastructure and mining have been major factors in globalization, generating further interdependence of economic and cultural activities.

In mining, the world is truly shrinking. Mining companies are scouring the world in the search for new deposits. This greater mobility means greater investment in Africa, Asia and Latin America, integrating what were isolated production sites into global value-added and commodity chains. Since this greater integration is one of the most profound aspects of globalization.

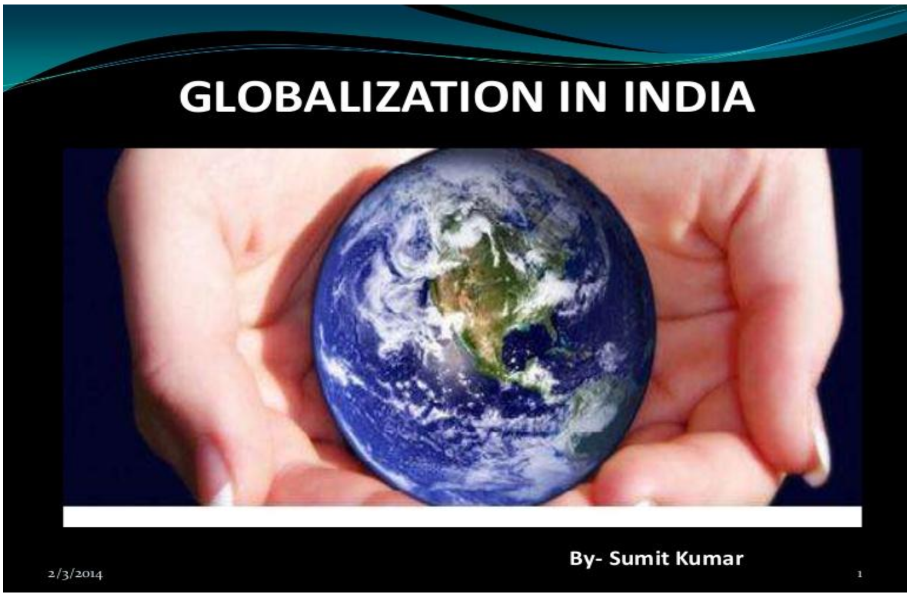
According to **Nicoletopoulos (2008),** "the driving forces for globalization from the supplier's viewpoint were access to mineral resources, access to markets, synergies & economies of scale in production. In addition, until a few years ago, there was partial abandonment of state ownership and a decline in transport costs. Now, partly due to the recent factors just listed, we might be seeing the beginning of a new era of resource wars. When analyzing these phenomena, it is interesting to note that often the trends in the oil and gas industry are followed by the metal ores and metals industry and then by industrial minerals. BRIC activity is affecting all mining and shipping worldwide. China is booming, polluting and increasing in costs. It is rich in industrial minerals, but for a number of reasons is going from dumping to rationing in a few years. India is following suit but in a rather different manner. Russia and Brazil are major forces in many industrial minerals as well as energy. Chinese and Russian mining giants invest abroad, in places like Latin America, Australia, Africa, China and now North America."

Dutt stated in her research that large scale mining is now a globalized industry spreading its tentacles into the remote parts of the developing countries. Mining has increasingly spread across international boundaries as many huge multinational organizations expand their operations into the developing countries where, instead of turning into enclaves as during the colonial era, they are setting off processes that have important gendered consequences. This large scale mining industry has come under severe criticism for its poor social and environmental performance in these countries, with several international institutions taking up reviews that examine questions of compliance and transparency."

II. GLOBALISATION AND MINING IN INDIA

Globally, mining and metal companies continue to struggle with depressed prices and oversupply in majority of commodities. Many projects have been put on hold or are being re-planned given the current economic scenario. Companies across sectors are under pressure to review their strategies, business models and portfolios in order to remain competitive and seize unique opportunities presented by the dynamic and complex market conditions. The only way ahead for companies is to transform, expand and operate on a truly global setting. Companies have realized that globalization is no longer a matter of choice indeed their long-term success depends upon it.

Mining resources are an important natural resource; Globalisation has led to an industrialisation boom while causing a downtrend in the agricultural sector. The entry of foreign capital in mining and steel plants has occurred at a fast pace. This has been accompanied by an indiscriminate exploitation of mineral resources and an indiscriminate use of water that globalisation brings about changes in economy, livelihood, lifestyles, and politics has been noted by some researchers in this study. The promotion of foreign capital in mining indicates the force with which the globalisation process is moving and the resulting environmental degradation and scarcity of such natural resources such as water is evidence of the detrimental impact of globalisation. As Ranjan Panda points out elucidating the case of Orissa, economic 'reforms' in the state have adversely affected the water resources sector as well.



Sources:- https://www.slideshare.net/shashanksingh268/grp2-globalisation-in-india-m2

Moreover, report of **National Centre for Advocacy Studies (2013)** stated that globalisation promotes a pattern of industrialisation that relates less with development and more with the imperative to compete and win, where the State becomes a facilitator of these activities. Globalisation thus creates social, economic, and political structures whose patterns of production and consumption are socially destructive. It is, in effect, a worldwide campaign that is leading to an economic order dominated by the corporate trade companies, which are not accountable to democratic processes or national governments."

Agrawal, Roy (2015), currently, growth in the mining and metals industry lags behind the country's overall economic growth. Growth in major commodities, especially iron ore, coal and steel industry is considerably constrained primarily due to infrastructure bottlenecks, use of obsolete technology, governance issues and mining ban that was in force until recently in a few mining states. Together with that, social unrest and land acquisition issues have constrained bauxite mining for major producers. Even as broad economic indicators hint toward recovery and improving business optimism, the Indian economy stands at a cross-road with growth and opportunity being challenged by economic volatility, crisis in foreign countries and dire need for policy reforms. Deft handling of these issues by the Government and the Reserve Bank of India (RBI) will determine the pace and direction of growth for all sectors in India and especially for the mining sector, which had been struggling with legislative inaction, weak regulatory environment and lack of investment."

Report of **India Juris ( )** stated that in order to satisfy a continuously increasing demand from industrial production, agricultural, high tech sectors and merchandise producers in more than 100 countries around the world people are engaged in the mining sector. Among those countries 50 countries can be called mining countries, because of the sector's contribution to export earnings or because it serves large domestic markets or because it employs millions of workers such as in India or China. The mining sector is one of the largest employers in India employing more than one million workers which is around 4% of the Indian workforce. According to World Bank the mining industry is poised to expand considerably over the next 20 to 30 years. Developing nations like India play an increasingly important role in that expansion on the demand side, as population and economies grow, as well as on the supply side, given shifts in exploration and mining development investments. India produces as many as 86 minerals, which include 4 fuels, 10 metallic, 46 nonmetallic, 3 atomic and 23 minor minerals. The total value of mineral production in India (excluding atomic minerals) during 2009-10 is estimated at Rs.1, 27,921.42 crores, which shows an increase of about 4.61% over that of the previous year."

According to the report of **India Juris,** FDI (Foreign Domestic Investment) has played one of the most important roles for the globalization in India and more specifically in mining industry. The Indian government has in a pragmatic manner opened up the mining sector to foreign direct investment in 1993 after the announcement of the new mineral policy to infuse funds, technology and managerial expertise in the sector. The Foreign direct investment (FDI) policy in the mining sector has been gradually liberalized over the last few years. In 1997 automatic approval route for investments involving foreign equity participation up to 50% in mining projects and upto 74% in services incidental to mining was introduced. FDI cap for exploration and mining of diamonds and precious stones have been increased to 100% under the automatic route with effect from 10th Feb, 2006. With this, the Foreign Direct Investment in the mining sector for all non-atomic and nonfuel minerals have now been fully opened upto 100% through the automatic route including diamonds and precious stones."

According to the report of **Invest India (2012),** following are the latest FDI policy in India:

1. "Indian Government allows 100% FDI with automatic approval for Mining and Exploration of metal and non-metal ores including diamond, gold, silver and precious ores but excluding titanium bearing minerals and its ores; subject to the Mines and Minerals (Development & Regulation) Act, 1957.

2. It also permits 100% automatic FDI approval for Coal & Lignite mining only for captive consumption by power projects, iron & steel and cement units and other eligible activities permitted under and subject to the provisions of Coal Mines (Nationalization) Act, 1973.
3. The Government has come out with a New Mines and Minerals (Development and Regulation) Bill, 2011 that seeks a complete and holistic reform in the mining sector with provisions to address issues relating to sustainable mining and local area development, especially families impacted by mining operations.
4. The existing National Mineral Policy, 2008 provides measures to streamline and simplify the procedures for grant of mineral concessions, develop a sustainable framework for optimum utilisation of the country's natural mineral resources for the industrial growth in the country and at the same time improving the life of people living in the mining areas which are generally located in the backward and tribal regions of the country.
5. The new Policy spelt out measures to optimise the scientific mining and exploration of the country's mineral resources. Some of the important measures as listed in state policy are enumerated below:

(i) The Indian government opened up the mining sector to foreign direct investment in 1993 after the announcement of the National Mineral Policy to infuse funds, technology and managerial expertise in the sector. As a result, private investment -both domestic and foreign, has been permitted for the exploration and exploitation of the following minerals: Iron – ore, Copper, Manganese, Lead, Chrome Ore, Zinc, Sulphur, Molybdenum, Gold, Tungsten Ore, Diamond, Precious Stones, Nickel and Platinum group of metals. The Foreign direct investment policy in the mining sector has been gradually liberalized over the last few years. As a result, several foreign companies have begun investing in India, with the majority coming from Canada and the USA, followed by Australia, the UK and South Africa. Most interest has been shown in the base metals, diamond, mineral sands and gold sectors.

(ii) Apart from the Ministry of Mines, India has several governmental agencies that have been set up to assist in the development of the country's mineral resources. The Geological Survey of India (GSI) is the principal agency responsible for the assessment of geological and regional mineral resources of the country. Its areas of operation encompass scientific surveys and research, for locating mineral resources. GSI operates through six regional offices and four specialised wings - marine, coal geophysics, airborne surveys and training. The Indian Bureau of Mines (IBM) is the principal government agency responsible for compiling exploration data and mineral maps and for providing access to the latest information is respect of mineral resources in the country."

2.1. Mining and Displacement

According to **Meher (2010),** owing to an acute shortage of land for agriculture and the lack of efforts by the state to provide the agriculture dependent poor people with the technical knowledge and skills they need to make a living from secondary and tertiary sector occupations, the post reform years of market led growth and globalization in India have been met with opposition. The acquisition of land for large industries, mines or special economic zones has given rise to the livelihood insecurity of the poor and less privileged people.

People in the urban hinterlands and even in the sparsely populated rural areas now strongly resist the state's efforts to transfer and convert agricultural land to industry and mining activities. This is because the perennial income generating capability of land and its operational holding capacity have been diminished by this process of conversion while acute population growth has further aggravated the situation. This is clearly evident from the resistance of people to industry even in the progressive Left Front ruled state of West Bengal, where the Left Front Government has earned the distinction of ruling over the state for more than 30 years at a stretch.

Because of the land reform measures undertaken by the Left Front Government in the past, it was able to retain its popularity among the toiling masses. However, as discussed in the following pages as the protests and resistance to displacement by tribal people and poor peasants have resulted in killings in different parts of the state popular support for the state has declined. The people most affected by displacement do not expect to get fair treatment in terms of resettlement and rehabilitation which might enable them to earn a decent living."

Further, one of the amendments to mining law proposes that 26% of the profits from mining should be shared with people who are displaced because of the projects. If the companies don't make profits, they will need to pay an amount equal to mining royalties to displaced people.

2.2. Pollution Havens

According to **Mehta (2002),** it has been seen that the poorest countries receive a disproportionately high share of resource seeking investment, which has profound impacts on the development paths of these countries. Production in sectors such as mining is characterised by high capital intensity and economies of scale. The host countries may receive a few spills over benefits because of these factors but they also pay a high cost. There could be misallocation of the scarce natural resources, environmental damages and displacement of local small producers.

Much of foreign investment in the mining sector in developing and less developed countries is by Transnational Companies (TNCs). It is alleged that in the search for new sources of capital, labour and raw materials, TNCs relocate their firms in ³pollution havens" where environmental regulations are lax. While it is difficult to determine whether the level of environmental regulations in developing countries affects FDI flows, there is some evidence that pollution havens" do exist with certain types of firms operating in specific industries, including mining in particular countries. The reason is that for mining companies, pollution control costs can make up a significant proportion of the companies' total costs. So small cost differences can translate into large changes in the market share and profitability. Therefore these companies are more susceptible to the level of environmental costs, and therefore are more likely to invest in pollution havens". Countries in the Asia Pacific region e.g. Papua New Guinea and Indonesia have allegedly lowered their environmental standards to attract FDI in the recent past (the ³race to the bottom" phenomenon).

There are instances of companies, which did not invest for reasons of environmental standards, putting pressure on host developing countries to lower environmental regulations, or prevent their enforcement. Examples include Shell's oil drilling in Nigeria and Freeport's mining operation in Indonesia.

The Indian mining sector however was closed to foreign investors till 1994. Even after the liberalisation of the sector, very few TNCs have invested in India. However steps to liberalise the sector to attract higher volumes of FDI are still being taken. The Government must be careful. While inviting foreign investment, it should keep a constant vigil of the activities of the companies that are coming in, and prevent any potential damage to the environment. There are a few instances of mining TNCs endangering the environment by their activities in some states in India with the complicity of the respective Governments. In Orissa, eastern India, TNCs in the Bauxite sector have displaced the tribal population (or *adivasis*) from their homeland and polluted one of the state's most important rivers by discharging effluents. It is alleged that TNCs are even indulging in extortion to grab land while the Orissa Government is doing nothing to protect the environment and the *adivasis* land. The *adivasis* are accusing the Orissa government of openly supporting the TNCs. The media, civil society and other stakeholders of society have a very important role to play in monitoring the activities of the Government and preventing such cases from happening."

2.3. Measures to Protect the Environment

Mehta (2002) stated that the advanced technology, automation and globalisation of mining industries have changed the mining sector around the globe. In many countries responsible mining companies have demonstrated their commitment to protecting and upgrading the environment while improving their performance standards. There are instances where mining companies have adopted the best practices used in other industries, leading to improvements in productivity, safety, and environmental protection. In India also, many large mining companies have adopted environment friendly practices.

Example of waste utilisation in India by large Mining Companies:

i. The National Mineral Development Corporation is setting up a 0.3 million ton pig iron plant for the utilization of tailings.
ii. The Kudremukh Iron Ore Company has formulated a project to reclaim 117 million tons of tailings to recover 21 million tons of concentrates.

More and more companies must be encouraged to adopt practices and technologies, which are healthy for the environment and ensure the safety of miners. The future direction that must be followed by the mining companies is as follows:

1. Resource conservation and management by scientific and rational utilisation with minimum waste in extraction, finding substitutes of the minerals widely used at present, proper & judicious recycling of used metals and scraps and discovery of new deposits.
2. Adoption of environmental friendly technologies.
3. Efficient use of energy.
4. Afforestation and preservation of biological diversity.

2.4. FDI (Foreign direct investment)Policy Implication

According to senior officials in the Ministry of Coals and Mines, the situation on mining leases has improved considerably, but foreign investment in the mining sector has been delayed by two to three years after it was opened to foreign investment five years ago. The different ministries of the Central Government have taken measures to improve FDI inflows in the mining sector, speed up environmental clearance of foreign and domestic investment proposals and effectively implement environmental legislation. Some other measures could also be taken, such as:

1. The Government should not permit mining operations in ecologically sensitive & rich areas and environmentally & biologically fragile areas. It should map such areas and ban mining in these areas and prepare another list of areas where mining is permitted.
2. Wastelands generated by mining activities should be used productively, and for this purpose plans should be made and implemented effectively. A Reclamation Trust Fund or a Performance Guarantee Bond could be established as in many other countries, to use wastelands and revive degraded lands.
3. Old and abandoned mines should be rehabilitated and put to productive use by the Government. Levying a cess on mineral production could finance this.
4. There should be a well formulated and effectively implemented mine closure policy by the Government.
5. Environmental laws must be implemented effectively and polluting mining companies must be punished.
6. Effective environmental regulation and safety and health inspection of small mines should be in place. The Government could bring out some guidelines on this.
7. The participation of stakeholders like mine workers, consumers, local residents, environmental organisations and other members of civil society would help in the effective implementation of environmental laws and regulations.
8. Some form of environmental indicators for mining should be developed to assist in the assessment of the state of the environment in mining areas.
9. It should be mandatory for mining companies to obtain environmental certificates e.g. eco rating."

III. GLOBALISATION AND MINING IN RAJASTHAN

"According to the report of **Planning Commission, Government of India (2006),** *in spite of Rajasthan having vast mineral resources foreign investment in mining sector is grossly inadequate and govt must analyze the low levels of foreign investment in the state".* It is clear that Rajasthan has lots of potential in mining sector and in some mining sector, Rajasthan has monopoly provided the technology used is modernised and wastage of mineral minimised. Modernisation of mines can only be optimized through foreign investment and technology.

A policy is required in Rajasthan for foreign investment in mining sector in Rajasthan as of now when Central Govt has granted 100% Foreign Direct Investment in mining sector. Globalisation of technology is a must in mining sector for the wastage reduction and higher security purpose. In most of mines miners still uses the traditional measures for mining.

According to the report of **Ahuja (2017)**, state attracts $157 millions of FDI in 3 quarters of this fiscal year i.e. 2016-2017, but project delays in mining doubts.18" Foreign Investors are ready to invest in mining sector of Rajasthan but they are not getting enough support from the Rajasthan Government.

Federation of Rajasthan Trade and Industry President Suresh Agarwal attributed the fluctuation in FDI flow to project delays in mining. "Many mining projects have been delayed in obtaining environment clearances. So the investors should be told beforehand that these are the environment issues and this is the action that has to be taken on your part," he said. Other state government are actively participating in FDI in Mining i.e. Gujarat, Andhra Pradesh but Rajasthan mining industry is far away from the Foreign Investments.

IV. CONCLUSION

The significance of the problem has been realized when with the increase in number of people killed and injured at work. In the Mining Industries, the costs of accidents and ill health can be substantial. Sometimes due to the disruption, claims for damages, loss of goodwill, and loss of confidence in management in the business can lead to total collapse. Occupational accidents particularly in small mining companies can have a major financial impact. Globalization and rapid industrial growth (about 7% annual economic growth) in the past few years have added further to complexities of occupational health related issues. Mining labour and health conditions are changing due to the impacts of globalization. Mining is male dominated profession and health & safety risk differs according to location, product and the product.

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