

“ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AS A TOOL TO ACHIEVE THE SUSTAINABLE DEVELOPMENT”

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ABSTRACT

As the word Environment gained its eloquence, in 1972 from the well focused United Nations Conference on the Human Environment which became the periphery of interrelating day to day human activities & its effect on Environment. Further the momentum has been attained in 1992, from the U.N Conference on Environment & Development named as Earth Summit which resulted in farming action plan to achieve Sustainable Development & so emerged the most relevant tool to assess a potential project for environmental impacts known as “EIA”. EIA envisages the future environmental impacts arising from upcoming project or a development activity providing suitable options & feasible measures for reduction of adverse impacts, making project friendly to lives of number of local habitants & hence maintaining sustainable livelihoods. Hence EIA is the best perceived tool for achieving the sustainability, i.e. desired balance between needs of today keeping in mind the demands of future generations.

The approach sustainable development was introduced into the global scenario in the 1980s as a sphere co-relating economic development, the natural environment and people. This paper reviews the various analytical tools available to determine environmental impacts & there applications & respective comparison with EIA. The objectives of study to a large extent has been based on mapping & analysis of relevant flows of material, energy, environmental impacts & CO₂ generation per tonne of clinker & cement in Jaypee Sidhi Cement Plant, Sidhi (M.P.) –India, A unit of Jaiprakash Associates through Life Cycle Assessment tool. LCA methods is used for compiling & examining the inputs & outputs of energy, raw material, environmental impacts & emissions directly attributable to the manufacture & functioning of a production of product from “Cradle to Grave”. Production of cement involves the consumption of large quantities of raw materials, energy & pyro- processing. Also cement production is one of the largest contributors to global CO₂ emissions. Environmental impacts are taken in study as per national ambient air quality standards, 2009 of MoFF & CC. LCA methods are more precisely defined in ISO standards 14040 & 14044. Major thrust on following sections have been given in the study is goal & scope definition, inventory analysis, impacts assessment & interpretation. Potential impacts are also evaluated using the software & help of International Reference Life Cycle Data System Method recommended by European Commission in this study. Cost based analyses of above different segments were too taken in account in this research paper.

KEYWORDS: Life Cycle Assessment, Cement, Energy, Pyro- Processing & Co₂ Emissions