

# THE ROLE OF MULTINATIONAL CORPORATIONS IN THE MAIN CONCEPT OF GREEN PRODUCTION IN THE CEMENT INDUSTRY

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**Abstract:** *The concept of corporate environmental responsibility is under-implemented in developing countries, especially in those where there is insufficient application of environmental legislation regulating the way in which the business activities of the participants are carried out. In the face of insufficient government support, many multinational corporations, in collaboration with the World Business Council for Sustainable Development, have initiated collective action to adopt best environmental practices in their industries to better protect the environment. It is about adopting green programs, and this is characteristic of corporations in the cement industry, which face many challenges such as: lack of raw materials, depletion of fossil fuel reserves, increased demand for cement and concrete, strong environmental concerns related to climate change. Several different forms of voluntary initiatives can be identified by which multinational corporations seek to achieve more favourable position on the global market, such as: unilateral initiatives initiated by enterprises in the absence of government support, adoption of environmental standards on a voluntary basis have been prescribed by the state, and partnership agreements resulting from the cooperation of public and private actors. This paper reviews individual multinational corporations from the African state of Morocco and how they adopt best environmental practices from other corporations in the cement industry. Adopted environmental practices can increase the capacity of these corporations in the field of environmental protection, and provide them with communication*

*skills that will enhance collaboration and exchange of ideas with other corporations.*

**Key words:** *multinational corporations, cement industry, green production, environmentally responsible behaviour*

## INTRODUCTION

During the 1980s, multinational cement corporations launched numerous initiatives in many countries with the aim of adopting best practices in the field of environmental protection and their harmonization with international norms. As the main actors, the corporations which are cement producers have launched numerous voluntary initiatives to protect the environment. These initiatives have been particularly pronounced in developing countries where institutional infrastructure has played a crucial role in supporting a higher level of environmental protection. This was crucial from the present point of view, since the cement industry is one of the industries emitting a significant amount of gases that cause the greenhouse effect. According to reports from the World Business Council for Sustainable Development, there are differences in emissions from Portland cement production in different regions. They range from 0.73 to 0.99 CO<sub>2</sub> per kilogram of cement produced (Diouri et al., 2018). The main sources of carbon dioxide in cement production are the burning of fossil fuels and the calcination of limestone.

According to that, the paper is organized as follows. The first part of the paper presents the

activities that have contributed to the adoption of best environmental practices in the global cement industry. The second part of the paper is dedicated to consideration of requirements for the adoption of best environmental practices in the business strategies of corporations in the cement industry. The third part of the paper describes corporations that have shown a high degree of responsibility in the production of cement in the field of environmental protection, with an emphasis on corporations from the African state of Morocco. In the last part of the paper, concluding remarks are given.

### **1. Activities to adopt best environmental practices in the global cement industry**

Cement producers are under constant pressure from the authorities to make their business less harmful to the environment. The concept of corporate social responsibility arose as a consequence of normative pressures that have led to the adoption of best environmental practices by multinational corporations in the cement industry. Given the growing importance of corporate environmental and social performance, the largest cement corporations and the World Business Council for Sustainable Development have launched many collective actions to adopt best practices in the cement industry. Their launch was aimed at helping managers better understand and understand the impact of cement production on the environment.

Voluntary initiatives for environmental protection have proven to be effective measures that have led to better corporate performance and greater environmental protection (Cashore, 2002). These initiatives are typical of developing countries where institutional infrastructure has played key role in supporting greater environmental protection and quality. Multinational corporations have been major players in launching voluntary environmental initiatives. They have adopted certain performance standards in order to improve corporate environmental performance. In addition, these corporations, as voluntary actors, used their market power to accept norms already adopted by other corporations in order to increase legitimacy or take advantage of a privileged position in the market. The pressures stemming from voluntary corporate initiatives are believed to lead to greater respect for the pressures imposed by country governments. In addition, voluntary pressures coming from corporations lead to the adoption of stricter environmental and ethical standards.

Increasing the legitimacy of corporations is possible if they are accepted by the institutional

environment. The institutional environment is determined by the following significant factors: 1) the institutional characteristics of the environment, 2) the characteristics of the corporation itself, and 3) the legitimate process in which corporations build their perception in accordance with the environment in which they conduct their business activities. An additional requirement that corporations must meet relates to their acceptance not only in the country they come from, but also by other global corporations. This is a prerequisite for multinational corporations to secure their business activities in host countries.

The work of certain authors has pointed to the growing importance of voluntary initiatives undertaken by multinational corporations (Lyon and Maxwell, 2001; Paton, 2000). In the absence of state support, corporations launch initiatives that can take various forms: 1) public voluntary schemes, 2) voluntarily adopted standards previously defined by the government, and 3) negotiation agreements resulting from partnerships between private and public participants.

Due to external pressures that were economic in nature (as a result of rising oil prices on the world market), multinational corporations began to organize themselves in sectors within the World Council for Sustainable Development. These are the first sector-organized corporate initiatives aimed at adopting sustainable best practices that are tailored to the specifics of the cement industry. Since corporations as cement producers strive to make as much profit as possible and maximize their capacities, in the course of conducting their business activities they have the obligation to assess the economic opportunities and risks associated with achieving sustainable development. In this regard, the scope of goals of these corporations has expanded from researching alternative fuel sources to identifying ways in which the cement industry can develop in the future to better meet the needs of global sustainable development while increasing shareholder ownership.

Two studies examining the possibilities of new market conditions in the 21st century are of particular interest (Battelle Memorial Institute, 2002). They pointed out that the prices of raw materials, public supervision over corporate behaviour, as well as rigorous regulations that regulate the behaviour of all economic actors in the global market have increased. Arthur Little stands out, laying the foundations for a research program aimed at assessing current industry practices and making recommendations to cement industry corporations and their potential partners regarding

their vision for the future (Battelle Memorial Institute, 2002). Involving different participants and looking at their perspectives has been a key activity undertaken by the cement industry in many countries around the world on the path to sustainability. The World Council for Sustainable Development has held several meetings with various parties in the previous period. They concluded that a systematic analysis of market conditions and stakeholder preferences played a significant role in identifying new factors that unequivocally indicate that there is great reason to integrate the concept of sustainable development into the operations of corporations in the cement industry.

## **2. Pressures to adopt best environmental practices in the business strategies of corporations in the cement industry**

Increased public awareness for the environmental impact of multinational corporations and the need for good governance require careful consideration of the state of the environment, as well as the environmental consequences of selected growth strategies of multinational corporations. The results of empirical research have shown that corporations that want to remain competitive in the 21st century have to incorporate the principles of environmentally and socially responsible behaviour into their business while achieving sound financial performance. The requirements for environmental and social responsibility of corporations are not a reflection of goodwill or good business ethics, but are in fact conditions imposed on these entities in the course of conducting business activities.

State institutions require corporations to balance the economic, environmental, and social aspects of business. On the other hand, there are demands from employees who want to work in those corporations that meet their environmental values. In addition, the international community continuously monitors environmental and social protection costs as a result of the economic growth of developing countries. The pressures imposed by the international community are manifested in the form of work permits that must be provided by corporations that are starting a business or for those corporations that are necessary for them to be able to continue to conduct business on a regular basis.

Observing the current situation, it can be noticed that the cement industry has a large share in world CO<sub>2</sub> emissions, which is at the level of 5% (Naqi and Jang, 2019). This situation required higher

quality and regular reporting to the public on the activities of corporations to ensure greater transparency and accountability. Multinational corporations have an obligation to submit reports indicating that they are actively working to improve environmental and social performance. In this way, the demand of the social community for continuous improvement of environmental protection and social responsibility as determinants of successful business comes to the fore.

Sustainable development criteria have become a significant determinant of financial institutions that have begun to incorporate them into their financial responsibility criteria. Financial institutions, accordingly, required their clients to report on their environmental and social impacts, and implement strategies that will limit adverse impacts. For example, the International Finance Corporation has set customer-oriented performance standards, providing guidance on how risks can be identified and helping corporations avoid, mitigate, and manage risks and impacts when conducting business in a sustainable manner.

The World Bank prescribed guidelines for environmental protection, health and safety that financial institutions must use. These are precisely defined performance measures that are acceptable for financial institutions and that can be achieved with the help of existing modern technologies. These measures tend to translate into site-specific objectives and are applied as a technical source of information during project evaluation activities. For example, in 2011, France passed a law requiring corporations trading in public markets with over 500 employees to compile reports on their social, environmental, and governance aspects (OECD, 2017). During 2012 and 2013, the French government adopted the Grenelle acts, which were given priority in the annual reports on corporate social responsibility. These acts described in more detail the way in which corporations took into account the environmental and social consequences when performing activities as well as social obligations in accordance with the principles of sustainable development (Slavin and Buckman, 2017). Article 225 of the French Commercial Code was revised in 2013, and its provisions required that a sustainable development performance report be included in the corporation's annual report. Corporations are required to report regularly on 42 indicators in the non-financial part of the report. Corporations were allowed to omit some indicators that were not important for their business activities. Previously, corporations were required to provide evidence justifying the omission of certain indicators from annual reports. In the last

phase, the annual reports of corporations are subject to audit by an independent body, i.e. a third party. The above facts clearly indicate that the financial stability of corporations is increasingly assessed on the basis of the environmental performance of corporations, as it affects the level of risks to which corporations are exposed and their responsibility in conducting business activities.

Multinational corporations have recognized the importance of applying the concept of sustainable development in cement production. In that sense, corporations have worked intensively on activities to find new factories around the world. In addition, corporations have recognized the importance of operational standardization. These are unique governance structures that are significant because they respect cultural differences of different communities in which they operate, and emphasize the building of cooperative relationships with other companies within industries. Sustainable development provides a good framework for achieving these goals, bearing in mind that it puts the cooperation and social responsibility of corporations in the forefront. Cement manufacturers have benefits from the preventive introduction of sustainability standards into their business practices. These benefits were manifested in the creation of value for shareholders, which enabled corporations to improve operational efficiency and positioning in the global market. This was a good basis for additional community interest in the concept of corporate responsibility. This is supported by the development and implementation of new concepts that include expanded producer responsibility and the emphasis on electronic communication of corporations in order to increase their visibility in the global market.

### 3. Responsibility of corporations for the production of cement in the field of environmental protection

In many countries, the privatization of state property has served as a starting point for the takeover of cement plants by multinational corporations. These were mostly corporations that had previously pledged to respect the 1992 Rio Convention. This was the case with corporations from the African state of Morocco. The cement industry in this country has a long tradition and is one of the best organized industrial sectors in it. The cement industry is run by four large multinational corporations. These are the corporations Italcementi, Holcim, Lafarge and Cim Por. During the 1990s, these corporations

bought various cement plants and divided the country into four regions. Each region was served by one corporation, so it was not possible for two or more corporations to serve one region. Table 1 shows an overview of the situation in the cement industry in Morocco in 2018.

**Table 1.** Headquarters, subsidiaries and individual factories

Corporation	Subsidiary	Factories
Italcementi	Ciments Français	Marakesh, Safi, Agadir
Holcim	Holcim Maroc	Setat, Oujda, Fes, Benslimani
Lafarge	Lafarge Maroc	Busekura, Tetuan, Meknes
CimPor (before 2012)	Asment Temara	Asment Temara

*Source:* Global CO<sub>2</sub> emissions from cement production, 1928–2018, 2019

What is important to point out is that the cement industry in Morocco consists of four multinational corporations that have 62 branches (Mwenda, 2019). Each of these subsidiaries specializes in specific value chain steps in cement production and serves the regional market. Italcementi Corporation owns 30 facilities, Lafarge owns 6 facilities, and Holcim owns 17 facilities.

Let us return to the activities of corporations regarding the adoption of good environmental practice. The corporations that are signatories to the convention have committed themselves to be good neighbors and to implement good environmental practices in their business. In that way, the corporations took into account the remarks of certain groups from Morocco, which referred to the application of good environmental practices in their business. Corporations have solved the problem by moving a number of their plants to other locations, and one part of them has been modernized. These changes were not made in isolation, but in coordination with local authorities. The Morocco Cement Association tried to develop good cooperation with the competent state bodies, i.e. the Ministry of Environment. In cooperation with the Ministry of Environment, the Morocco Cement Association proposed activities that are considered desirable, and ways how corporations can reduce their negative impact on the environment. The obligations that corporations must fulfill are most often in the form of memoranda of understanding previously signed

with the competent ministry. Through memorandum of understanding, the members of this association committed themselves to take care of the environment through the inclusion of environmental components in the management systems of factories and quarries. In this regard, members of the association have been actively involved in taking concrete actions in relation to regulatory oversight, in order to prevent possible pollution and damage that may occur. The activities of the association are aimed at raising awareness of the importance of environmental management, as well as capacity building for conducting various environmental studies related to pollution reduction and promoting the conservation of natural resources.

The first memorandum of understanding between previously mentioned parties was signed in 1995 and its focus was on reducing emissions of pollutants into the air through the optimization of production processes and reducing the amount of raw materials and energy consumption. The next memorandum was signed two years later, in 1997, and was more comprehensive in its content. The memorandum stipulates that members of the association have an obligation to upgrade their facilities, to establish engineering controls that will reduce emissions, as well as to adopt integrated management approaches in the field of land, water and air protection over a period of six years. In addition, members of the association have played a significant role in implementing various programs that would assist the Ministry of Environment and other government departments in developing public policies and operationalizing the national strategy for environmental protection and sustainable development.

The results of the audit in 2003 showed that the cement industry in Morocco exceeded the expectations projected by the 1997 convention. This was the reason for the Ministry of Environment to get involved in new agreements and conventions, in order to provide additional support in the implementation of sustainable development programs. The new agreements have allowed cement producers to reuse tires and other waste as alternative fuels.

The Environmental Charter signed in 2004 was the next document that was especially important in the development and implementation of sustainable development programs in Morocco. Multinational corporations operating in the territory of this African country, in accordance with the instructions prescribed by the charter, had certain obligations which included (Lord and Stein, 2013): 1) introduction of environmental protection at all

levels of corporate decision-making through the application of environmental management systems, 2 ) commitment of corporations to comply with existing regulations and standards, as well as the use of modern technologies that enable better performance in the environment, 3) involvement of corporations in drafting environmental regulations and standards, 4) emphasizing cooperation between various bodies, Ministry of Environment and corporations in knowledge exchange and expertise necessary in the field of waste recycling, 5) active dissemination of best practices to other corporations and authorities to raise awareness of the importance of implementing sustainable development programs.

During 2005, the Ministry of Environment hired an independent consultant to measure the impact of initiatives taken by cement corporations in Morocco (Atasi, 2013).

The results obtained by the consultants confirmed the success of cement producers in reducing the impact of their activities on the environment while increasing production. This fact served as an additional incentive for these corporations to get involved in the activities of providing additional services in the field of environmental protection. It is especially gratifying that Moroccan cement producers processed more waste than they produced themselves.

The active cooperation between the Ministry of Environment and the Morocco Cement Association has encouraged the signing of a new convention in order to expand the achievements covered by the previously signed agreements. The Convention was signed in 2008 and the parties undertook to work on further promotion of the best environmental practices in the country, in the following areas (Atasi, 2013): 1) reuse of waste tires and oils used in energy production, 2) collection and disposal of plastic bags, 3) development and implementation of various programs in the field of environmental protection that are under the jurisdiction of the association of Moroccan cement producers, 4) activities to rehabilitate the quarry. The Convention has had a positive impact on all parties. Thanks to the convention, the cement industry has achieved significant savings through the use of waste tires and oils that were previously used in energy production. On the other hand, the authorities have achieved significant savings through the disposal of unnecessary waste.

These examples indicate that cement producers in this African country have accepted a role in

addition to maximizing profits as the primary goal of their business. Thanks to this additional role, multinational corporations have gained better reputation in competition with other cement producers. The benefits of these corporations based on their commitment to a better reputation outweighed the direct economic benefits they had from their activities.

There are several factors that played a significant role in the acceptance of environmental best practices by cement production corporations in Morocco. The main factor that shaped the adoption of best practices in the field of environmental protection in Morocco was the one that referred to the fact that this country was the location of many European branches. The pressure coming from these subsidiaries was transmitted by directives thanks to which Moroccan cement producers had the power to initiate changes that were in the function of improving the success of their business.

In addition to corporations' strong commitment to environmental management, there are facts that point to certain threats to the future growth of the cement industry. These threats are related to the following: 1) difficulties in obtaining work permits, resulting from greater oversight of neighboring countries and NGOs, especially in relation to increased CO<sub>2</sub> emissions in industry, 2) the presence of strict environmental legislation, 3) impossibility to take loans from financial institutions, 4) changes in public requests regarding the provision of information, whereby corporations are expected to share information related to their work with different stakeholders.

## CONCLUSION

Corporate social responsibility has become increasingly important in countries with insufficient enforcement of environmental legislation.

This is especially true for developing countries without state support for the activities of multinational corporations. In an effort to overcome this situation, many corporations in these countries have partnered with the World Business Council for Sustainable Development to launch collective actions to adopt best environmental practices in their industries.

In such a constellation, the adoption of green programs has proven to be a successful solution, and these programs have been implemented by many corporations in the cement industry.

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supported by the development and implementation of new concepts that include extended producer responsibility and the enhancement of electronic communications by corporations in order to increase their global market visibility.

## SUMMARY

Corporate social responsibility has become increasingly important in countries where there is insufficient enforcement of environmental legislation. This is especially true for developing countries where there was a lack of government support for the activities of multinational corporations. In an effort to overcome this situation, many corporations in these countries have partnered with the World Business Council for Sustainable Development to initiate collective action to adopt best environmental practices in their industries. In such a constellation, the adoption of green programs has proven to be a successful solution, and these programs have been implemented by many corporations in the cement industry. Multinational corporations have recognized the importance of applying the concept of sustainable development to cement production. In this regard, corporations have been intensively working to find new factories around the world. In addition, corporations have recognized the importance of operational standardization. Unique governance structures are significant in that they take into account cultural differences of the communities in which they operate and enhance the relationship of collaboration with other businesses within industries. Sustainable development provides a good framework for achieving these goals, bearing in mind that cooperation and corporate social responsibility are at the forefront. Cement manufacturers have benefited from the preventive introduction of sustainability standards into their business practices. These benefits were manifested in creating value for shareholders, which allowed corporations to improve operational efficiency and positioning in the global market. This was a good basis for additional community interest in the concept of corporate responsibility. This is