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# SUSTAINABLE CLOSURE

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*Recognizing the benefits of a  
sustainability driven closure  
procedure during a crisis*

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## Acronyms

**AWARE**- Authorization to Operate, Win an Withhold Talent, Avoidance of Risks, Reputation, Economic Sense

**BITC**- Business in the Community

**CCOO**- Comisiones Obreras (Labour Commission)

**CLIS**- Comités Locales de Información y Seguimiento (Local Committees for Information and Monitoring)

**CSI**- Cement Sustainability Initiative

**CSR**- Corporate Social Responsibility

**IBLF**- International Business Leaders Forum

**ICMM**- International Council on Mining and Metals

**IUCN**- International Union for the Conservation of Nature

**IUCN-Med** - International Union for the Conservation of Nature – The Centre for Mediterranean Cooperation

**RACI**- Responsible, Accountable, Consulted, Informed

**SCM**- Sustainable Closure Model

**SEAT**- Socio Economic Assessment Toolbox

**SES**- Social Engagement Scorecard

**UGT**- Unión General de Trabajadores (General Workers' Union)

**VEL**- Valoraciones del Entorno Local (Local Environment Assessment)

**WBCSD**- World Business Council for Sustainable Development

**WWF**- World Wildlife Fund

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## Glossary

1. **Benchmark** - reference point or standard against which progress or achievements can be assessed. A benchmark refers to the performance that has been achieved in the recent past by other comparable organizations, or what can be reasonably inferred to have been achieved in similar circumstances
2. **Biodiversity** - shorthand for biological diversity: the variability among living organisms. It includes diversity within species, between species and of ecosystems
3. **Corporate Social Responsibility** - a firm's sense of responsibility towards the community and environment (both ecological and social) in which it operates, and draws resources and sustenance from
4. **Decommissioning** - planned shut-down or removal of a building, equipment, plant, etc., from operation or usage
5. **Ecosystem**- a dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit
6. **Efficiency** - a measure of how economically or optimally inputs (financial, human, technical and material resources) are used to produce outputs
7. **Environment** - the ecosystem in which an organisms or a species lives, including both the physical environment and the other organisms with which it comes in contact
8. **Externality** – a non-market effect on the utility of an individual, or on the costs of a firm, from variables that are under the control of some other agent
9. **Feasibility**- the coherence and quality of a programme strategy that makes successful implementation likely
10. **Heavy Industry** - automobile, mining, petroleum, and steel industries which require very large capital investment in weighty machinery and huge plants
11. **Impact**- positive and negative long term effects on identifiable population groups produced by a development intervention, directly or indirectly, intended or unintended. These effects can be economic, socio-cultural, institutional, environmental, technological or of other types
12. **Indicator** - A quantitative or qualitative measure of programme performance that is used to demonstrate change and which details the extent to which programme results are being or have been achieved. In order for indicators to be useful for monitoring and evaluating programme results, it is important to identify indicators that are direct, objective, practical and adequate and to regularly update them
13. **Jamilena** - town of 3429 inhabitants located in the province of Jaén, Spain, and the location of the 2008 Holcim Spain quarry closure



14. **Lessons Learned**- learning from experience that is applicable to a generic situation rather than to a specific circumstance. The identification of lessons learned relies on three key factors: i) the accumulation of past experiences and insights; ii) good data collection instruments; and iii) a context analysis
15. **Life Cycle** - ecological impact: Stages in the life of a material or product from resource extraction through processing, manufacturing, use, and disposal or recycling
16. **Materiality**- the threshold that determines what the key issues are for a company's many stakeholders, for their commercial success and for internal management. Some issues are so important that they demand real recognition and effort by the company, but many other issues do not rise to this level
17. **Monitoring** - a continuous management function that aims primarily at providing programme managers and key stakeholders with regular feedback and early indications of progress or lack thereof in the achievement of intended results. Monitoring tracks the actual performance against what was planned or expected according to pre-determined standards. It generally involves collecting and analyzing data on programme processes and results and recommending corrective measures.
18. **Outcome** - the intended or achieved short and medium-term effects of an intervention's outputs, usually requiring the collective effort of partners. Outcomes represent changes in development conditions which occur between the completion of outputs and the achievement of impact
19. **Partnership** - a cross sector collaboration in which organizations work together, committing resources as well as sharing risks and benefit, to achieve sustainable development goals
20. **Peripheral Business** - small and medium enterprises that surround the site and provide goods and services for the employees of a larger enterprise
21. **Quarry** - an open excavation or pit from which stone is obtained by digging, cutting, or blasting
22. **Rehabilitation** - restoration of an entity to its normal or near-normal functional capabilities after the occurrence of a disabling event
23. **Risks** - factors that may adversely affect delivery of inputs, completion of activities and achievement of results. Many risk factors are outside the control of the parties responsible for managing and implementing a programme
24. **Stakeholder** - person, group, or organization that has direct or indirect stake in an organization because it can affect or be affected by the organization's actions, objectives, and policies
25. **Sustainable Closure** - the process of closing down an operation facility while minimizing negative social and environmental impacts and reducing hidden costs, integrating stakeholders in the whole closure process and, in doing so, surpassing the requirements stated by legislation.

26. **Sustainable Development** - development that meets the needs of the present without compromising the ability of future generations to meet their own needs
  27. **Task Force** - temporary group of people formed to carry out a specific mission or project, or to solve a problem that requires a multi-disciplinary approach
  28. **Torredonjimeno** - city of 14,010 inhabitants located in the province of Jaén, Spain, the location of the 2008 Holcim Spain plant closure
  29. **Validity** - the extent to which methodologies and instruments measure what they are supposed to measure. A data collection method is reliable and valid to the extent that it produces the same results repeatedly. Valid evaluations are ones that take into account all relevant factors, given the whole context of the evaluation, and weigh them appropriately in the process of formulating conclusions and recommendations
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#### *Glossary Sources*

Business Dictionary: [www.businessdictionary.com](http://www.businessdictionary.com)

OECD Glossary

[http://www.oecd.org/glossary/0,3414,en\\_2649\\_37425\\_1970394\\_1\\_1\\_1\\_1,00.html#1969684](http://www.oecd.org/glossary/0,3414,en_2649_37425_1970394_1_1_1_1,00.html#1969684)

SD Gateway: <http://sdgateway.net/introsd/definitions.htm>

SustainAbility : [http://www.sustainability.com/aboutsustainability/article\\_previous.asp?id=65](http://www.sustainability.com/aboutsustainability/article_previous.asp?id=65)

Wikipedia: <http://en.wikipedia.org>

UNFPA: Programme Manager's Planning Monitoring & Evaluation Toolkit

<http://www.unfpa.org/monitoring/toolkit.htm>

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# 1. Executive Summary

The purpose of producing this report was to identify a specific sustainability challenge arising from the economic crisis that had failed to be addressed adequately up until this point in time and to put forward a creative and innovative strategy to face this challenge. Through intensive research into this topic a need was identified in the corporate responsibility field to address the growing concern surrounding abrupt and unplanned closures and the impacts these closures were having on sustainable development within companies and for society as a whole.

Arising from this realization the Sustainable Closure Model (SCM) was constructed and focused towards providing closure solutions for heavy industry enterprises because of their especially high environmental and social impacts and additionally for the increased level of operational closures that have taken place recently within this sector.

This report is introduced with a brief look into global economic situation which has provided both unparalleled risks to corporate responsibility and a unique opportunity for companies test their previously touted sustainability claims. The benefits to upholding a strong CSR platform are then outlined, extending from retaining motivated talent to breeding innovation. Two examples from the heavy industry sector are shared which give the reader a glimpse into the closure procedures that have been undertaken and the impacts they have had on sustainable development.

The subsequent section introduces the Sustainable Closure Model for the first time. The structure and purpose of the model are outlined as consisting of a series of processes which aim to address the challenges felt by companies facing the severe economic, social, and environmental issues from closing down abruptly without a clear plan. The benefits of closing sustainably, coined “gain AWAREness”, are outlined through a process attaching these benefits to a mixture of action and communication strategies. Through this series of steps, the model promotes sustainable closure, which is described as a process of closing down an operation facility while minimizing negative social and environmental impacts, reducing hidden costs, integrating stakeholders in the whole process and in doing so, surpassing the requirements stated by legislation. The SCM then presents a series of recommendations to aid companies through this difficult process.

Following the in depth description of the model and its recommendations, the Holcim case study is introduced to the report. This case study was completed by an analysis of Holcim Ltd., a global supplier of cement, concrete and aggregates. Holcim Spain faced the abrupt closure of a plant and quarry in late 2008 that had been in operation for over 50 years but was forced to close to due economic pressure. The closure presented an opportunity to analyze the SCM recommendations against a real life scenario through in depth interviews with the key actors and research into the closure process.

The Assessment and Review section results from this case study and provides a summary of the main strengths and potential improvements for the Sustainable Closure Model. The findings are then described which indicate that actions taken by Holcim and those recommended by SCM align on many fronts especially addressing the importance of stakeholder prioritization and communication. Improvements to the model were found to lay mainly in understanding the complex issues surrounding cross sector partnerships and integrating the actions into a more detailed timeframe.

Finally, the main conclusions of the SCM are outlined through a series of questions and answers centered around both model structure and overarching final insights collected from analyzing the heavy industry sector during the crisis.

## 2. Introduction

### 2.1 Scope

The current economic crisis has resulted in an increasing need for companies to close down facilities in many sectors. Obstacles arising from the crisis, such as a decrease in financial resources have been added to the always difficult task of closing down in a sustainable way. This research paper aims to provide a practical model for companies facing closures as a result of the current economic crisis. The main objective of the model is helping companies to close in a sustainable manner, which means minimizing negative social and environmental impacts, reducing hidden costs, integrating stakeholders in the whole process and in doing so, surpassing the requirements stated by legislation.

The Sustainable Closure Model (SCM) would be most relevant for Corporate Social Responsibility (CSR) industry professionals but is not confined to their use. It is aimed towards companies that have a CSR strategy in place, but do not have a proper closure strategy or wish to improve an existing one. Heavy industries having a high impact level, both environmentally and socially, when shutting down operations, fall closest within the scope of this model's use.

The SCM is analyzed throughout this research paper in comparison to the actions taken by a leading global cement company. This aligns with the objective of the model to provide a sustainable closure tool for a heavy industry company facing closure challenges during the economic downturn.

### 2.2 Methodology

In creation of the sustainable closure model a series of steps were taken: Exploratory research, CSR model analysis, Model creation, Expert Feedback, Case study analysis, and Assessment and Review.

Exploratory research was undertaken to gain an understanding of the current situation faced by companies downsizing or closing operational facilities. The aim was to see which industrial sectors were being confronted with the biggest closure challenges arising from the economic crisis and to seek out existing models that could aid companies throughout this process. The main sources of information used have been numerous websites, online journals and articles.

The creation of the SCM was based on a thorough analysis of the existing models and by taking into account best practices. Firstly, a review of current CSR models was completed to draw upon knowledge offered in this field. The task of understanding what information could be missing in terms of sustainable closure procedures was gathered from this research. The model was then created based on what information could be additionally offered to companies with CSR strategies but who were lacking a procedural model to aid in closure activities.

Through this procedure Expert Feedback was sought to guide the model creation and to verify its usefulness in the CSR field. This feedback was obtained through email and face-to-face consultations. The experts consulted were currently working the CSR industry and provided insight into the aspects of the model that would be most useful to industry professionals.

The sustainable closure model was then analyzed through a comparison of actions taken by a global cement company operating in Spain undergoing closure of plant operations. This case study was conducted through interviews with two key members of the closure procedures through telephone and face-to-face interviews. Information was also gathered by analyzing outside accounts of closure activities by the media, which included radio and television broadcasts.

An assessment and review of the sustainable closure model was then carried out by analyzing the recommendations made by the model and how they compared to the framework of real-life actions undertaken by the cement company. Through this review the model's strengths and weaknesses were brought to light and conclusions could be gained towards the effectiveness of the sustainable closure procedures outlined in the model.

## 2.3 Assumptions

- The model does not assume to act as a legal base for activities. It is meant to be a supplementary tool for companies.
- The model does not take into consideration the reasons for plant closure.
- It is assumed that the companies will have the ability to set their own indicators in order to measure sustainability progress.
- The model assumes that companies are aware of their major stakeholder groups and have engaged them to some degree.

## 2.4 Global Crisis

Over the last year and a half, the global economic system has experienced a downturn unlike any experienced since the Great Depression. Economists have linked the current economic situation to the collapse of the US credit market, while also pointing a finger at a more widespread flaw to adequately address the risks piling up in financial markets due to a myriad of issues such as unsound standards, feeble risk management, and a lack of transparency in financial products. Globalization has intertwined the roots of the financial crisis and influenced a widespread ripple of economic problems.

The Organization for Economic Cooperation and Development (OECD) estimates that global GDP levels will plummet across OECD countries by 4.3% in 2009 and that unemployment will reach unheard of levels in many of these advanced nations by 2010.<sup>1</sup> The result has been a trend throughout many multinational companies hardest hit by the economic crisis to pull away from current operations where their efforts are not the most vital to the balance sheet. The short time span it has taken to arrive at this current economic state has brought changes though out the majority of industries yet inexperienced in their corporations' histories.

As enterprises try to make sense of the new economic climate and create sound business strategies for months and years ahead, the importance of a strong corporate responsibility plan is becoming ever more apparent. Recently, *The Economist* magazine called the economic crisis “ a stress test for good intentions” and that the recession will be a test of companies' commitment for doing good.<sup>2</sup> Ethical Corporation, an independent media company working in the field of responsible business, has stressed that corporate responsibility is a way for business to engage with and explain itself to society, and is more important than ever. They insist that trust in companies has slumped and abandoning CSR policies at this time would be suicidal for business.<sup>3</sup>

As many enterprises look to close down operations that are not vital to save themselves from insolvency, they have been faced with a monumental challenge. They must balance their responsibilities to stakeholders while preserving trust in their company at large. An increasing number of companies are facing the challenge of how to close down sustainably, to preserve their integrity and commitments to society and the environment.

## 2.5 Impacts on Corporate Social Responsibility

The global recession has had many impacts on corporate social responsibility as companies head for harder economic times many have been tempted to cut CSR spending and shore up profits. Most cuts have been to corporate-philanthropy budgets, as seen with Citigroup's charitable foundation which expects to make 63 million in grants down from 90 million last year.<sup>4</sup> Many companies argue that scrapping CSR related activities all together would have such an adverse effect on their reputations, and therefore profits, that they have held onto strategic CSR initiatives. Carmakers are facing pressure to cut back as well. Ford will offer 40% less to its philanthropic arm this year<sup>5</sup>, but still remains committed to its corporate giving efforts.

Managers' actions are also illustrating a shift. Where offsetting carbon footprints resulting from business travel was the norm just a year ago, a recent survey of 329 corporate-travel managers and business travelers published in February by the Association of Corporate Travel Executives found that only 17 per cent of them now ranked environmental sustainability as a high priority, compared to 29 per cent last year.<sup>6</sup>

As more and more companies look to cut costs and preserve the bottom line, many have started to close down operations, which has resulted in major impacts on CSR policies. Multinationals' actions have been thrown into the spotlight as the social and environmental effects of closing operations are becoming more widely publicized. Enterprises operating in heavy industry sectors have often been the first to feel the negative impacts on both their profits and reputations as they have been forced to close down operating facilities worldwide.

The mining industry in Australia has taken a huge blow as the demand for metallurgical coal has dropped worldwide. The Far Western Region of NSW has seen major employers shut down operations having significant impacts on local communities. One of the region's largest employers, Perilya, has retrenched 440 personnel in late 2008.<sup>7</sup> This has brought about new challenges for the Australian coal mining sector to manage community relations and public trust. ArcelorMittal is the world's largest steel producing company, operating in over sixty countries. The company has come under increased pressure and criticism as a result of the closure of several steel producing plants and the accompanying employee lay-offs. Over 1,000 Belgian and French workers hurling cobblestones and steel fencing protesting temporary layoffs, recently attacked their Luxembourg headquarters.<sup>8</sup>

In Cleveland, Ohio where ArcelorMittal has temporarily closed down a steel plant and laid off over 900 employees, many demonstrations and protests have been held to bring attention to the loss of jobs in these regions.<sup>9</sup> These employee actions would suggest that ArcelorMittal has had a less than satisfactory sustainable closure strategy and their relationship with employees and surrounding communities has suffered for it. Therefore, it is evident that the economic crisis has had implications on corporate responsibility, hitting social and environmental initiatives the hardest. The question for managers has been how to prioritize resources to maintain CSR programs that are most vital.



### 3. CSR During a Crisis

#### 3.1. Opportunities

*'Never miss a good crisis'<sup>10</sup>*  
*(Hillary Clinton)*

As outlined in the previous chapter, CSR strategies have been frequently pushed to the back seat in response to the financial turmoil with several companies substituting CSR related activities in favour of cost-cutting projects. These actions are dominantly taken by companies that view CSR as a 'nice to have' add-on with a mainly superficial green-washing purpose. Enterprises that have succeeded or are intending to strategically integrate CSR into their business strategy can however profit from the opportunities this crisis brings along.

The following chapter examines the possibilities CSR can offer companies to help to survive the current economic crisis as well as to benefit from the adjacent long-term opportunities. Like the business case for CSR itself, many factors affecting this business case are also dynamic and consequently intensifying as a result of the financial crisis. External drivers such as consumer awareness, community expectations and legal pressure are likely to progressively accentuate and internal opportunities such as value creation and innovation proliferate.

*Table 1: Push and Pull drivers*

<b>PUSH: External Drivers</b>	<b>PULL: Internal Opportunities</b>
Increased Consumer Awareness	Improve Reputation
Increased Community Expectations	Stimulate Value Creation
Intensified Legal Pressure	Retain and Recruit Talent
Hungrier Media	Foster Innovation

#### **PUSH - External Drivers**

##### **Increased Consumer Awareness**

According to Context, a CSR consultancy, consumers interest in companies sustainability credentials remain strong in spite of the recession as consumer consciousness has not been put on hold<sup>11</sup>. Being aware of the financial burden many companies face, consumers are likely to be concerned about the quality of the product and the service companies offer during this time. Furthermore, having been faced with corporate scandals before (e.g. within Nike, Gap, Shell or Enron<sup>12</sup>), consumers are possibly aware that the current financial restraints can tempt companies to overlook one or another of its corporate principles. Continuous CSR commitment serves as a crucial intangible asset to restore and maintain the company's credibility and strengthen the consumer's trust in the company<sup>13</sup>.

##### **Increased Community Expectations**

Over the last few decades many communities have benefited from philanthropic donations companies presented them with. Enabling the private sector to increase in popularity within the receivers community, these charitable handouts progressively raised society' expectation of the corporate givers. As a result of the current economic development the budgets for benefactions has shrunk substantially<sup>14</sup>. Companies therefore have to understand how to strategically use a smaller budget in order to achieve the greatest gain for the local community<sup>15</sup>. With a sound CSR

strategy this goal can be more likely to be achieved and community disappointment (and its intrinsic negative consequences) can be avoided.

### **Intensified Legal Pressure**

With dysfunctional corporate governance as a fundamental contributor to the current economic turmoil, the level of regulation that forces businesses to be more 'responsible' is bound to be increased<sup>16</sup>. Especially transparency and accountability measures will have to be adopted by the private sector. Companies that decide to follow a proactive CSR strategy will therefore avoid having to undergo radical managerial changes in order to conform to new-implemented jurisdictions, as they will already be integrated in the business model of these companies.

### **Hungrier Media**

During this economic crisis the private sector stands right in the spot light. Any ethic related cutbacks, poor supply chain management incidents, environmental unfriendly practices or employee benefits reductions will for certain make the news<sup>17</sup>. It is therefore crucial for companies to be on good terms with the Media and a sound CSR strategy is thereby key.

## **PULL - Internal Opportunities**

### **Improve Reputation**

Like Warren Buffett said: "Reputation takes years to be built and can be destroyed in a minute"<sup>18</sup>. The previously identified critical CSR drivers illustrate that the containment of a company's reputation during a time of such uncertainty can be a challenging task. If companies understand how to pass this test however, their corporate image can however be more than maintained - it can get a real face-lift.

According to the Edelman trust barometer 62% of consumers trust corporations less now than they did a year ago<sup>19</sup>. Therefore a responsible approach to the triple bottom line and an effective communication strategy is of utmost importance to restore a company's integrity and boost corporate reputation. Subsequently this can even translate into an augmented level of attractiveness for both investors and customers - hence a tangible financial benefit and a strategic competitive advantage<sup>20</sup>.

### **Stimulate Value Creation**

By focusing on increasing its efficiency a company can achieve sustainable cost cutting. Taking actions to reuse water, electricity, fuel and waste; focusing on optimizing the production process or reducing travel frequencies, can generate significant cost saving opportunities.

For example, Accenture saved \$8Mio in 2007 by using 'telepresence' systems instead of organising physical meetings (= 2'000 tonnes of Co2)<sup>21</sup> and for Wal-Mart, a 5% reduction in excess packaging by 2013 will result in savings of US 11\$ billion<sup>22</sup>. Saving money while reducing the carbon footprint is both in the stakeholders as well as in the company's interest.

### **Retain and Attract Future Talent**

There is growing evidence that a company's CSR activities represent a legitimate and increasingly important means to attract and retain talent. According to the CEO of Deloitte Touche Tohmatsu: "the best professionals in the world want to work in organizations in which they can thrive; and they want to work for companies that exhibit good corporate citizenship."<sup>22</sup>

During a time where a secure position in the employment market composes a rare situation, employees might be more loyal to the company they are working for due to lack of better

alternatives. However, if a company is forced to make some of its employees redundant, its CSR strategy can help the company to increase the chances of them rejoining the enterprise in the future. Furthermore, for a company that is hiring during the crisis, a maintained and stable CSR strategy reveals the values of that company and serves as a signboard for the right candidates.

### Foster Innovation

Innovation – one of the key drivers for economic growth - is more important than ever during a crisis. The links between CSR and innovation are increasingly acknowledged in the European Competitiveness Report 2008<sup>23</sup> three ways in which CSR can contribute to innovation capacity and performance were identified:

- *Innovation resulting from engagement with other stakeholders:* Due to continuous dialogues and cooperation with other stakeholders such as grassroots community groups or non-governmental organizations, innovation outcomes can be deliberate or an unexpected benefit from such relationships.
- *Identifying business opportunities through addressing societal challenges:* Many companies are being created in order to address current social and environmental challenges as the business value of these companies is undeniable. The development of low-carbon technologies and the ‘bottom of the pyramid’ business model<sup>24</sup> are apparent examples thereof.
- *Creating places that are more conducive to innovation:* a sound CSR strategy enables the company to create a working environment in which the employees feel well looked after (due to focus on health, quality of life, work-force diversity issues). Consequently these workplaces are more conducive to innovation.

## 3.2 Sustainable Closure

Players in extraction industries are clearly aware that by the very nature of their business, they often cause environmental disturbances as a result of their daily operations of mining finite raw materials. Therefore such enterprises rely heavily on a supportive surrounding community and consequently try hard to develop strong relationships with their employees, suppliers, local institutions, local government etc. While benefiting in various forms from such ventures, local communities grow heavily dependent on the operating companies. Under constant scrutiny from external watchdogs, players in extracting industries are hence aware that they need to create long term value for all stakeholders in order to keep their image intact.

In many ways, the reputation of the company depends on what remains after a site closes and after the closure activities are finalized. It has to be understood that closure is an important phase in the lifecycle of their operations. Each site reaches a point where it is no longer financially viable to continue extracting the natural resources. This can be the result of bankruptcy, of being overtaken by a competitor and shot down as superfluous, of the non surviving entity in a corporate merger or of running out of natural resources<sup>25</sup>

The concept of sustainable closure is constantly gaining importance. As mentioned in Section 2.1, Sustainable closure is the process of closing down an operation facility while minimizing negative social and environmental impacts and reducing hidden costs, integrating stakeholders in the whole closure process and, in doing so, surpassing the requirements stated by legislation.

Most of the jurisdictions in existing closures laws and regulations focus mainly on technical rehabilitation issues<sup>26</sup> With growing awareness of the importance of stakeholder engagement as a way to improve reputation, minimize social and environmental impact and reduce hidden costs,

companies learned to integrate stakeholders in the whole closing process. The World Bank stated in its local economic development report that one of the most important aspects of mine closure is to design a closure plan which ensures continued livelihoods for the local community through diversification and community empowerment<sup>27</sup>. Although such industries often become for-runner in sustainability related matters and the important of an integrated closure planning is intuitively evident, the ICMM reveals that there plenty of room for improvement<sup>26</sup>.

The following two cases will highlight the importance of a sustainable closure strategy and the negative impact on the local community as a consequence of a lack thereof. The sustainable closure approach will expose the sustainable achievements for the stakeholder affected by the closure. Companies will consequently profit from a range of benefits, including an increase in reputation, risk avoidance possibility and easier access to future licenses to operate (see chapter 4.3 for the full list of possible benefits). The example of the unsustainable closure will, through the disclosure of the local damage caused by company, shed light on possible risks a company can face as a consequence. While not explicitly revealed in the text, risks of an unsustainable closure include environmental, health and safety, community as well as financial risks (see chapter 4.3 for the full list of potential risks).

### 3.2.1. Case Study I: Sustainable Mine Closure<sup>28</sup>

Being aware that the mineral resources exploited by the mining industry are non-renewable and profitable mining faces a finite-life cycle, the concept of sustainable plant closure is widely known in this sector. Resolute Amansie LTD ('RAL') in Ghana provides an example of a company that has succeeded in closing its mine sustainably.

RAL's Obotan Gold Project (a subsidy of the Australian parent company Resulte Mining limited) is located in one of the least developed district in Ghana where the community occupies a low standard of living due to deficiencies in infrastructure, health and education. Therefore many local community members depend heavily on the income from the mining plant. RAL set up a sustainable closure strategy with a focus on stakeholder engagement. All the initiatives started to roll out while the mining plant was still running.

The key concepts on which the closure strategy is based are as follows:

<b>Stakeholder Concern:</b>	By means of stakeholder dialogue the company identified the key concerns of the stakeholders regarding the plant closure. They included amongst others future land use, socio-economic implications and geotechnical and geochemical stability.
<b>Sustainable Development:</b>	The aim of RAL was to create sustainable value to all its stakeholders and ecologically restore the mined land and its surroundings.
<b>Stakeholder Involvement:</b>	RAL aimed to achieve optimal social/environmental results through strategic stakeholder involvement.

Together with national, regional, district and community stakeholders RAL developed a plan to meet the identified social and environmental requirements.

#### **Social Focus: Sustainable Livelihood Projects and Community Development**

In order to help the local community to become more self-sufficient and to increase the living standard, RAL assisted in the development of agriculture. 'Sustainable Livelihood Projects' (SLP) were constantly put in place. The formation of cooperatives to combine efforts and enable

communities to sustain SLP projects has been a large success according to the case study. Ventures are created for the farming of fish, vegetables, snails, pigs or oil palm trees etc. Furthermore in order continue to support the community a Farmer Resource Center was established and run during three years in order to provide access on farming related information.

With regard to the education and health issues the region faces, RAL set up an “Educational Facilities Improvement Program” (EFIP) and “Self Health Education” (SHE). EFIP focused on the setting up of new schools and providing selected students with scholarships for Junior and Secondary Schools. SHE helps educating members of society about the medical issues.

### **Environmental Focus: Revegetation and Restoration**

RAL's ecological objective focused on the revegetation and if possible greenfield restoration. Following a strict geotechnical and geochemical stability completion criteria, certain project sites such as pits and waste dumps and ideal end use (e.g. reforestation, aquaculture) were identified and appropriate strategies developed. The picture below shows the progress of the two year revegetation program. As a result of meeting its social and ecological principles by involving the main stakeholders during the entire process, as the paper claims, RAL could maintain good relationship with the local communities and authorities and received public acknowledgement.

#### *TSF Revegetation Process*



Photograph 1 TSF Revegetation in 2003



Photograph 2 TSF Revegetation in 2005

### 3.2.2. Case Study II: Unsustainable Mine Closure<sup>29</sup>

This case highlights the dangers of an unsustainable closure to the local social and natural environment.

The premature closure (2000) of Mhangura Copper Mine (MCM) in Zimbabwe left a negative impact on the local community both due to socio-economic as well as ecological negligence by the company. There was neither an existing exit strategy in place nor did the company have the capital to follow proper mine closure procedures due to bankruptcy. At the time of closure MCM employed 800 employees (down from 1500 during full operational capacity). Furthermore, additional stakeholders such as suppliers, farmers, local hospital and schools as well as other service provided were affected by the closure of the plant.

#### Compensation

- In terms of compensation for the job losses, the equivalent of 6 month salary was paid to the individual workers.
- Efforts to facilitate lateral transfer of some mine workers to sister mines were fairly unsuccessful as the sister mining ventures were also struggling to survive.
- Former workers had the possibility to become plot holders of the mine.

#### Consequences

##### Employee support

Shortly after closure the Mhangura settlement (incl. infrastructure, amenities and residents) was adopted by the Makonde rural district council, which led to an abrupt stop of the company's interest and responsibility in the local community. According to the case study, most workers, who had failed to secure a meaningful alternative employment, were consequently living in abject poverty. Inflation devalued the financial compensation package to almost meaningless levels.

##### Community Welfare

Along with the increase in poverty, education and health issue raise gradually. There has been a drop in school enrolment and a growing incidence of malnutrition, scabies, diarrheal diseases and malaria cases. During the operational period of the Mine, there was a health delivery and disease control system in place but after closure no medical assistance has been provided by the company.

##### Infrastructure Services

After the mine closure the rural district council was in charge of maintaining the local infrastructure and providing water and sanitation to formal mining employees. Due to a lack of financial and human resources as well as a know-how and technology shortage this task became a major challenge. The service of these amenities deteriorated rapidly which caused an increase of related health issues.

Local schools, that enjoyed various benefits from the company such as free electricity, waste collection services, free transport, books or subsidized accommodations for the teachers started to struggle. They had to operate with insufficient equipment and a decrease of experienced teachers. The supplementary industry to the mining sector gradually withdrew from the local community. Establishments such as Barclays bank, the Standard Charter bank, local hotels and other higher order retail shops closed their branches in this area. Remaining commercial services had to scale down and simplify their businesses in order to match the low income clientele.

### Biophysical Impact

More than leaving behind an unpleasant visual intrusion, the closure of the mining revealed that there has been a clear ignorance of minimal environmental standards both during and after the mine closure. A lack of rehabilitation, remaining leach plant waste, acid ponds, dangerous open pits are just some of the environmental impact left over by the company, triggering thereby a range of health and safety implications for the local community.

The support of the community consequently became a long term cross-sector challenge. The company could have avoided such a disastrous outcome by integrating a sustainable closure strategy during its operational stage. A lack of any Environmental Impact Assessment undertaken by the company enlarged the environmental consequences.



## 4. Development of the Sustainable Closure Model

### 4.1 Existing Sustainable Closure Strategies

The availability of existing academic papers or practical tool guides in the field of sustainable plant closure is restricted. Nevertheless, a growing awareness regarding the importance of sustainable closure practices amongst the large players crystallizes – especially in the mining industry<sup>30</sup>. A number of conferences are set up in order to reinforce awareness of the need for a systematic approach to closure planning as well as to promote good practice methodologies and applicable tools. An example composes the ‘Integrated, Systematic Approach to Sustainable mine Closure’ workshop, organized by ACMER<sup>31</sup> (Australian Centre for Minerals Extension and Research) in 2006. The conference highlighted the need for companies to adopt a multidisciplinary approach in order to address the relevant financial, social, health, safety as well as traditional environmental and economic considerations which are linked to a sustainable plant closure.










The integration of sustainable closure planning in the CSR reports of large natural resource companies further underlines the increased understanding of its importance. For instance, Xstrata– a major global diversified mining Group, emphasizes its commitment to manage the maintenance of 44 closed sites as a result of a detailed closure plan which has been put in place years in advance of the anticipated cessation of operations<sup>32</sup>. The business case for sustainable site closure has opened a new market for consultancies services offered for example by Delta Consultancy<sup>33</sup> or CLF Ventures<sup>34</sup> (their closing strategies are not available for public use).

With regard to the availability of concrete steps and considerations within the closure process, two categories of information can be distinguished – overarching and generic information on sustainable closing practices and heavy industry sector specific models and tools.

During the current economic downturn period, several articles have been published focusing on a general approach to sustainable downsizing. Certain recommendations are cross-sectoral and can therefore be taken into account when looking at the extraction industry. In his article ‘Breaking up is hard to do’ Ansett (2009) stresses that the expectations for a sustainable exit evolve around the need to conduct a risk assessment regarding the impact of closure decision, to establish a sufficiently long timeframe for the process, to ensure adequate compensation packages and to support redeployment or repatriation of immigrants<sup>35</sup>. These requirements, albeit linked to the textile industry in this article, are equally necessary to be integrated in a sustainable plant closure strategy.

Another example composes the UK based non-profit organization ‘Business in the Community’ (BITC), which published an article with the focus on sustainable downsizing practices in January 2009<sup>36</sup>. Under the heading ‘planning and implementing restructuring and downsizing with respect’ a generic checklist, which is also in the extraction industry of utmost importance, was presented.

Table 2 – BITC Checklist for Restructuring and Downsizing

 Understand the legal requirements of the process	 Provide support for both departing and retaining employees (job search, stress/wellbeing programs, development skills, etc.)
 Treat employees affected by downsizing with respect and dignity	 Support local managers (for example with risk management team)
 Involve and listen to stakeholders (e.g. trade unions, staff associations, employee networks, etc.)	 Manage the environmental and community aspects of any facility closure
 ‘Over’ communicate before, after and during redundancy program (visibility of top management is key)	 Actively manage (maintain good relationship) your talent pipeline (for potential rehiring)
 Consider all stakeholders affected by downsizing (not just employees)	

Source: Business in the Community

The second category of information relates to tangible closure strategies in the extraction industry. In this category three existing programs have been chosen to exemplify the conceptualization of this life cycle phase.

1. WBCSD – Cement Sustainability Initiative
2. Anglo American Corporation
3. International Council on Mining & Metals



### WBCSD – Cement Sustainability Initiative (CSI)

The Cement Sustainability Initiative (within the World Business Council for Sustainable Development) developed environmental and social impact guidelines, which serve as a framework throughout the lifecycle of a quarry or cement plant<sup>37</sup>. The guidelines are kept very generic with the reason that ‘local circumstances vary greatly depending on geography, culture, economic development, etc, so an exhaustive list of hard and fast rules is not appropriate’<sup>37</sup>. One chapter within the document is devoted to the closure of a site. The key issues raised regarding sustainable closure are the following:

### Community and Stakeholder Involvement

- Address stakeholders' needs in order to avoid delays resulting from protests and legal actions
- Conduct a socio-economic assessment in order to identify possible impacts on the community and employees due to the closure of the site

### **Future Site Use**

- Conduct a hazard assessment prior to closing in order to establish potential dangers to the community and the employees
- Understand that the future site use will depend on the owner of the land (land could be leased)
- Develop a future site plan through stakeholder engagement in an early phase of the site lifecycle

### **Rehabilitation**

- Carry out rehabilitation related tasks throughout the lifecycle of the site
- Conduct a hazard assessment in order to identify affected areas
- Identify opportunities from rehabilitation such as practical education for children through schools or clubs

### **Employment**

- Understand the likelihood of a high dependency on the company by the local community due to a concentrated local economy
- Determine the magnitude of social impacts and try to minimize them (e.g. relocation of employees or support in search for alternative employment)
- Collaborate with the local authority and minimize effects of unemployment caused by closure

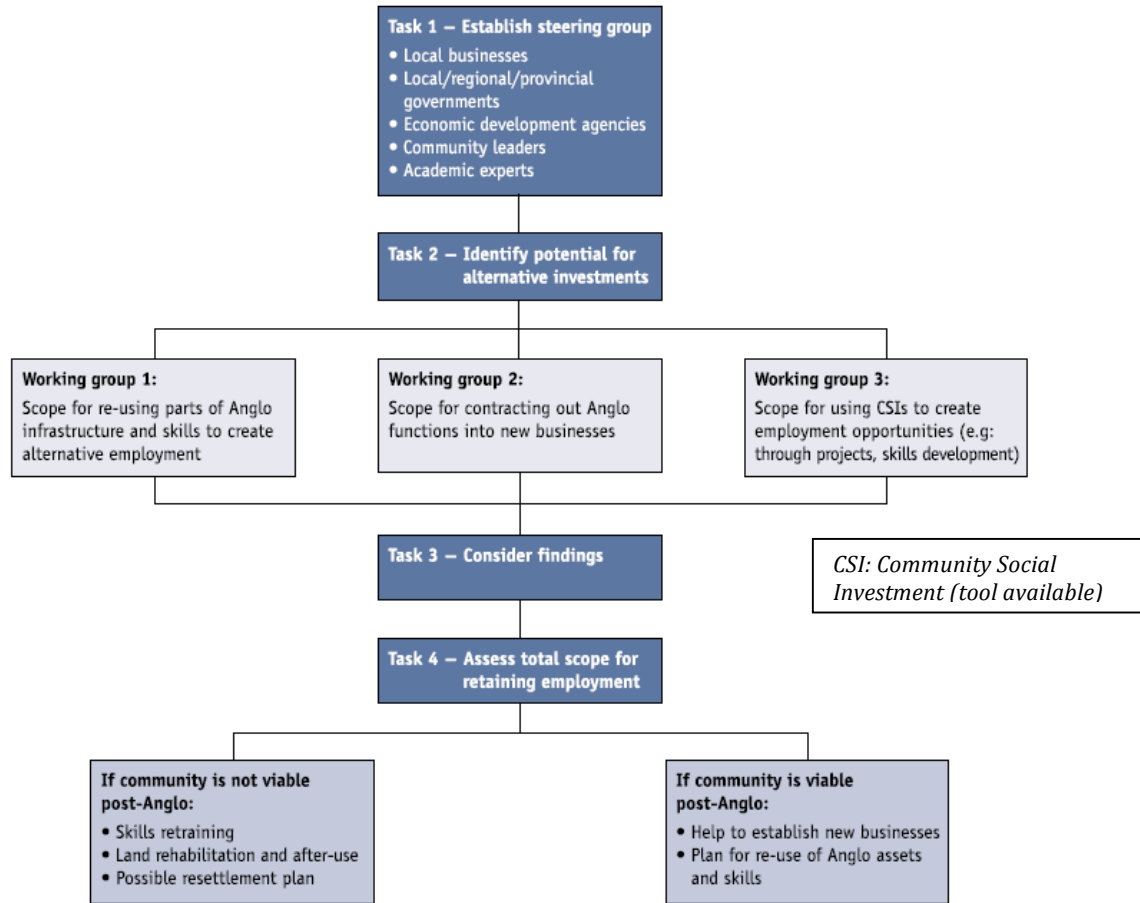
These guidelines are supported by various case studies of cement companies that have or have not implemented these principles in their closure strategy, building together the case for sustainable closure practices.



### **Anglo American Corporation**

Anglo American, one of the world's largest diversified mining and natural resource groups, developed a Socio-Economic Assessment Toolbox (S\*E\*A\*T)<sup>38</sup>. One part of this guidebook entails the proposal of closure tool as assistance in a sustainable closure process. The aim of the tool is to address stakeholders' expectations regarding environmental rehabilitation as well as the social and economic consequences of the closure. It is precisely stated that the tool should be used as a future planning aid and therefore should ideally commence up to 20 years before closure. Anglo American underlines the company's understanding of its responsibility towards the local community and aims, as part of its corporate responsibility commitment, to support the opportunity development for the advancement of the local people.

Figure 1: Summary of the Social Planning for Closure Process



Source: Anglo American Ltd

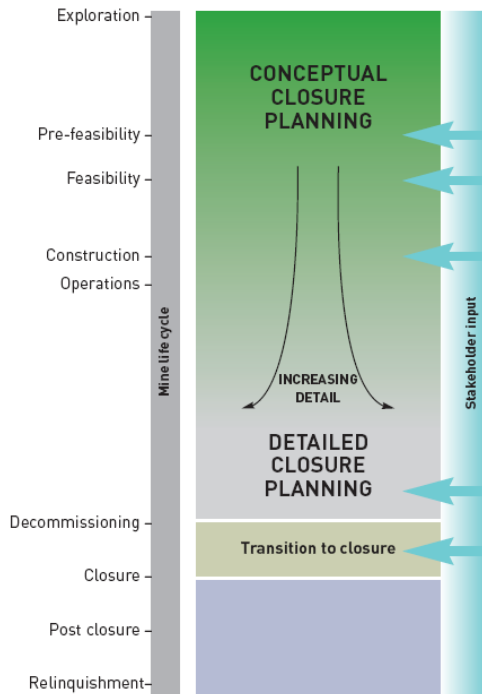
- Task 1** A steering group should be set up, composed of the affected stakeholder representatives in order to ensure the consideration of all relevant issues throughout the process.
- Task 2** Existing assets and skills can be used further in the following way:
- Re-use of existing assets and skills (e.g. side roads and tracks for vehicle testing and motor sports, Water supply and storage for Tourism such as boating and fishing or housing to retirement housing or visitor accommodation, etc. )
  - Spinning out internal functions to provide independent community services such as security, building maintenance, and laundry or catering (complementary tool available)
  - Employment generated through community social investment (complementary tool available)
- Task 3** In order to effectively implement the relevant sustainable closure actions, the company has to identify the degree of the community’s dependency on the company’s operation (complementary tool available).
- Task 4:** Depending on the findings of Task 3, the company should follow either of the following paths
- Non viable communities → Resettlement and Rehabilitation

- Viable communities → Actions to Ensure Community Survival

## International Council on Mining & Metals



Figure 2: ICMM Sustainable Closure Process



Source: ICMM

The ICMM developed in 2008 a very thorough toolkit to assist companies in planning an integrated mining closure<sup>39</sup>. The 8 lifecycle phases (exploration, pre-feasibility, feasibility, construction, operation, decommissioning, closure and post closure) of a mining operation are identified and during each phase a number of processes and relevant tools are recommended (See Appendix D p.87). These planning recommendations are initially conceptual and progressively become more detailed.

The document lays out an ideal case, in which the company follows this iterative process continuously, although the authors are aware that many companies have yet to define and implement a closure plan.

The guidebook is based around three main steps:

**1. Conceptual Closure Planning** – In this plan the goal and outputs are set by means of stakeholder engagement and effective communication. It is valid during the first four phases of the lifecycle. Main tasks within this plan include the identification of internal and external stakeholders, the contextual framework setting and the analysis of related risks and opportunities.

**2. Detailed Closure Planning** – This is a dynamic plan as it is used during the entire operation phase of the company and can therefore continually be modified and adapted. It lays out the specific milestones as well as the necessary actions needed to achieve a sustainable closure. An extensive list of tool proposals supports the goal setting process for all - social, environmental, economic, interim and final goals. Furthermore an action plan framework and cost calculation tools are recommended.

**3. Decommissioning and Post Closure Planning** – The third plan outlines the necessary actions to succeed in the transition from an operating plant to a closed plant and lays out the considerations and recommended actions for a successful post-closure period. Although no specific measures are elaborated in the document, some of the main concerns are identified. It is crucial that the post closure planning assures the meeting of the previously identified closure goals. Furthermore, transparency and full disclosure are key as the event will have a psychological impact on the local community. As there is a lot of room for improvement regarding an effective closure processes, a

detailed review of both the planning and the outcomes of the strategy is necessary. These lessons can not only benefit the company but the industry as a whole.

## 4.2 Sustainable Closure Model: Crisis Context

Even if, as previously stated, documentation on sustainable closure practices is scarce, the proliferation of such studies in the last few years can be acknowledged, as most of the documents found for this research were developed reasonably recently. It becomes evident that the social and environmental consequences after plant closure cannot be ignored but instead have to be approached pro-actively. Thereby, stakeholder-engagement is presented as one of the most critical components in order to achieve optimal results.

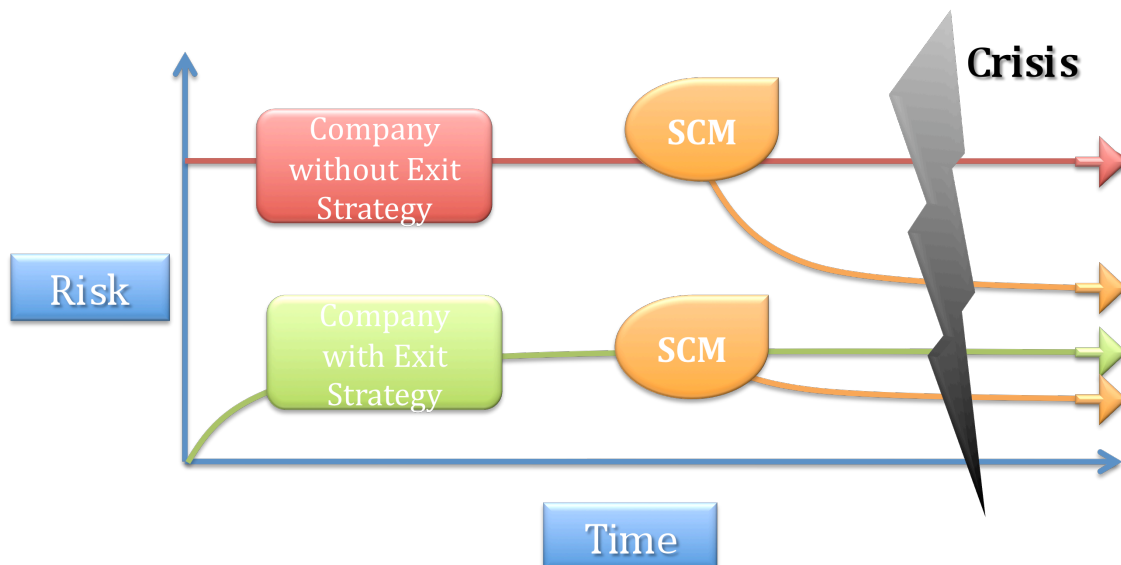
The strategies identified in chapter 4.1 present high inspirational targets in which companies commence closure related processes in the initial stages of the plant lifecycle. The preparation for an efficient exit stretches therefore over the entire lifespan of a company. These strategies are thus best applied in a low risk context, where the site has to close down as a result of reaching the end of its lifecycle.

It has to be pointed out that, albeit acknowledged, none of the strategies tactically develop the concept of contextual analysis. While some of the papers mentioned the case of an unexpected closure (e.g. ICM, Cement Sustainability Initiative) there is no clear integration of a crisis related impact on a strategy. According to ICM, real life scenarios show that many companies do not have a closure strategy in place, which makes them very vulnerable in a crisis situation.

Consequently, a need exists for a model that aids companies deal with a crisis related site closure in a sustainable manner. The Sustainable Closure Model ('SCM') presented in the next chapter and based on emergency guidelines for companies in crisis will primarily serve companies that do not have a sustainable closure strategy in place, helping them to reduce their risk exposure when facing a crisis. The SCM could further serve as supplement to existing corporate closure strategies. While these strategies look at a planned closure, the SCM can support unexpected closure processes, where the financial and resources constraints aggravate or prevent the implementation of the generic closure processes.

The following graph illustrates the lifecycle of companies in the extraction industry ('Time'). Companies with an existing closure strategy will be able to control external risk better than those without ('Risk'). The SCM, which can be implemented during any stage of the lifecycle, will aid companies to reduce the degree of risk they are exposed to. When faced with an unexpected need for closure, these companies will then have the necessary emergency guidelines in place for a sustainable closure approach.

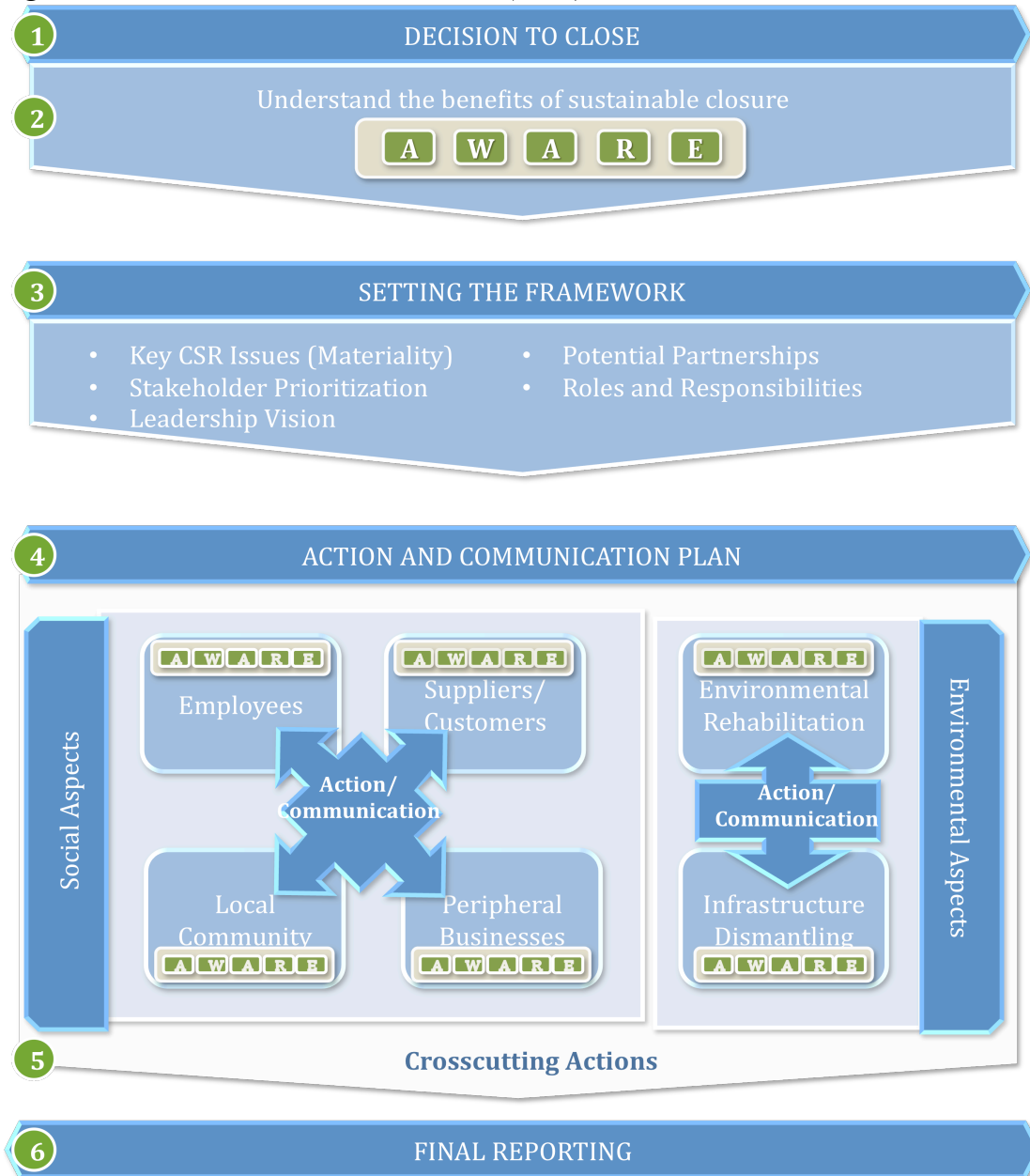
Figure 3: Context for the Sustainable Closure Model



### 4.3 The Sustainable Closure Model

In the following chapter the Sustainable Closure Model ('SCM') will be illustrated and subsequently each of the proposed steps will be described. The implementation of the model results in a set of benefits for the company which will be linked to the individual considerations and actions. Furthermore the appropriate framework will be explained in order to ensure the optimal execution of the sustainable closure processes. Finally, the appropriate final reporting strategy will be proposed.

Figure 4: The Sustainable Closure Model (SCM)





## 4.4 Step Analysis

### 1. Decision to Close

This is the first step in the sustainable closure model. Simply put, the decision to close has been made during a crisis situation and from this point forward the model aims to emphasize the need for sustainable closure by highlighting the benefits and the accompanying practices of a responsible exit.

### 2. Understanding the Benefits of Sustainable Closure

#### **“Gain AWAREness”**

The benefits described below compose the main advantages companies can enjoy when following a sustainable closure strategy. They have been arranged to form the adjective ‘aware’ The meaning of ‘gain AWAREness’ is twofold. Companies have to gain awareness about the importance of sustainable closure practices. They have to understand the impact they have on the local social and natural environment and the challenges they face when having to close unexpectedly. Simultaneously these companies can gain the identified advantages summarized as ‘AWARE’.

*Figure 5: AWARE Benefits*

**A**uthorization to Operate  
**W**in and Withhold Talent  
**A**voidance of Risks  
**R**eputation  
**E**conomic Sense

## Benefits on a corporate and local level:

### Authorization to Operate

The acquisition of future licenses to operate is of substantial importance on the corporate level. Sustainable closure practices are proof of the company's commitment to the local area, which is likely to stimulate the community's and the local government's support in the long term and consequently facilitate any future operation in the region. Additionally, sustainable closure can serve as asset for any future license to operate negotiations in other regions.

### Win and Withhold Talent

As mentioned in the section 3.1., current employment seekers are increasingly looking for companies whose values correspond with theirs. Therefore a company's CSR strategy will become a selection criterion for potential employees. A sustainable plant closure composes a key element in this strategy as employees are more likely to work for a corporation which ensures their personal, the community's and the environments post-operational support.

### Avoidance of Risks

Risk mitigation composes more a benefit on the local than on the corporate level. As Philip Peck argues in his paper on Risk Assessment Considerations in the Donetsk Basin - Mine Closure and Spoil Dumps (January 2009), a company confronted with closure is likely to phase 6 categories of risks.

1. *Environmental Risks*: negative effects on water, air, soil, waste
2. *Health and Safety Risks*: for mine workers, mine closure contractors, neighbors and potential future land-users (including infrastructure security, toxic waste, open pits..)
3. *Community and Social Risks*: e.g. unemployment, loss of social welfare benefits, reduced educational benefits, relocation of population, alcohol and drug dependency..
4. *Final Land Use Risk* : e.g. residual or ongoing contamination
5. *Legal and Financial Risk*: due to lack of compliance with existing regulation
6. *Technical Risk* : lack of closure plan, appropriate closure team or necessary resources

These risks can lead to severe tension with stakeholders and consequently to strikes and community unrest. In a worst case scenario, this tension can even result in sabotage and hostage taking of the local management. A sustainable approach can mitigate these risks. A company that demonstrates its commitment to support the local community and restore the impacted land through constant stakeholder engagement will be more likely to get the stakeholders to collaborate and participate rather than to demonstrate and use violence.

### Reputation

A successful sustainable site closure is a way of maintaining or even increasing a company's reputation amongst the local community and within the industry. It helps the local enterprise to gain respect amongst the stakeholders, which, if communicated effectively could consequently translate into an image lift on a corporate level.

The company could provide the sustainable closure benchmark within the industry to which the other players in the field will have to adapt. Consequently the entire sector can end up benefiting from a reputational increase.

### Economic Sense

Through sustainable closure practices, companies can reduce their expenditure sufficiently – both the tangible as well as the hidden costs. On the local level, the re-use, re-sell or recycling of the

site's infrastructure can be financially viable and allows the company to save demolition costs. In addition, it creates opportunities for additional funding by the local government. On a corporate level, albeit initially costly, the company that ensures adequate environmental restoration straight away will be able to avoid likely lawsuits by the local community.

### 3. Setting the Framework

#### a. Key CSR Issues

The first thing a company must do when deciding on a sustainability strategy is define the issues within the organization that are really key, not only to their stakeholders, but to their internal management and commercial success, and therefore also in line with their CSR strategy. The sustainable closure model relies heavily on this first step. The key issues that a company decides are their most important to success make up what has been defined as “material issues”. These issues can make or break a company and could be best described as what keeps a CEO awake at night.

In a recent report by SustainAbility, a hybrid strategy consultancy and independent think-tank, materiality is outlined as being the following.<sup>40</sup>

- At the heart of a business
- Having a potentially large impact on people, the environment, and company value
- Matter to the company
- Issues the company can do something about directly or indirectly

Although there is no clear definition of what materiality can mean for a company, some financial estimates have been set. A financial threshold, perhaps, 5 % of a company’s revenue could determine financial materiality.<sup>41</sup> The ability to measure sustainability materiality thresholds is less clear and no specific tool exists to calculate this. Understanding the materiality issues of a company helps managers pinpoint risks and understand the impact these issues could have if not addressed properly. Material issues can be defined to a greater extent by dividing these issues on both a corporate and site level scale.

For the purpose of the *Sustainable Closure Model* materiality needs to be defined early on to prepare a company for issues will be most important during the closure procedures. For heavy industry companies, the material issues will likely surround environmental restoration procedures, communication of planned actions to communities and employees, and the responsible treatment of fired employees. All of these issues will have significant impacts on the successful closing of an operating facility and if not managed correctly and with foresight could result in the failure of a sustainable closing procedure.

Setting out the materiality issues before proceeding further also paves the way for better communication with NGO’s and other stakeholders. Their ability to engage with the company improves if they understand how the business works and what makes it behave the way it does. Defining material issues also set expectation issues regarding how companies will treat sustainability issues.<sup>41</sup> Materiality can be defined through internal analysis, stakeholder dialogue, or assets and resource prioritization.

#### b. Prioritization of Stakeholders

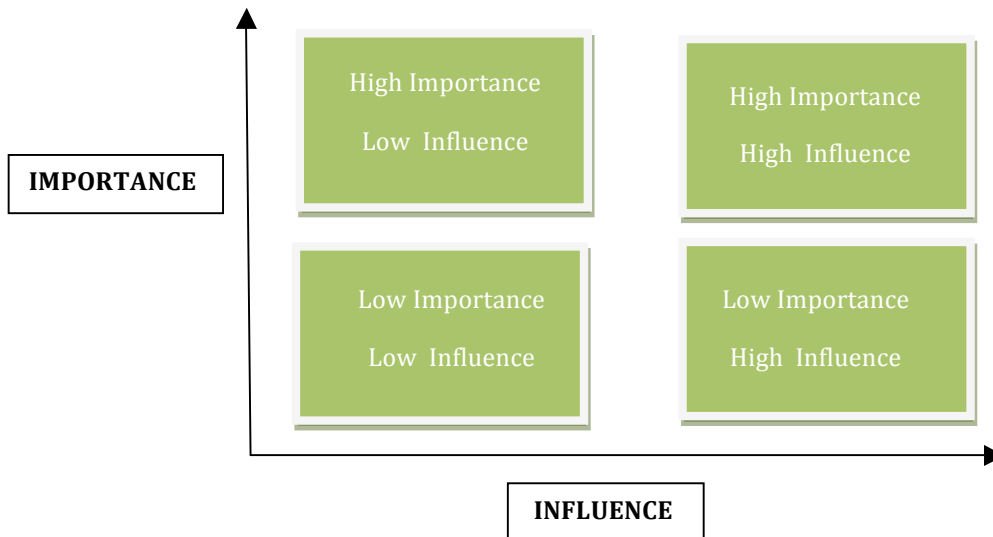
Most companies understand the importance of knowing and understanding their key stakeholders, those groups that have high interest in the company and are impacted the most by the company’s actions. For any business strategy it is essential to understand all major stakeholders. When following the Sustainable Closure model we assume that companies are aware of their major stakeholder groups and have engaged them to some degree. Dialogue with these groups must be undertaken to fully understand what their expectations are from the company.

Multinational conservation organization, the World Wildlife Fund (WWF) recommends using the following several key questions to assess the influence and importance of each stakeholder and their potential impact on the project.<sup>42</sup>

1. Who is directly responsible for decisions on issues important to the project?
2. Who holds positions of responsibility in interested organizations?
3. Who is influential in the project area (both thematic and geographic areas)?
4. Who will be affected by the project?
5. Who will promote/support the project, provided that they are involved?
6. Who will obstruct/hinder the project if they are not involved?
7. Who has been involved in the area (thematic or geographic) in the past?
8. Who has not been involved up to now but should have been?

When a crisis hits and a company must revise its strategy, it is essential that they are able to identify those stakeholders that they should invest the most into. In a crisis situation resources and time are limited, therefore being able to quickly prioritize stakeholders is a key step to this model. One way that companies can prioritize their stakeholders is to use a stakeholder prioritization matrix. Often the importance of some stakeholders can shift away from what was originally concluded, furthermore a crisis has the ability to increase the importance of some stakeholders over others, which can change how a company decides to commit resources to these groups. A stakeholder prioritization matrix is constructed as follows.

Figure 6: Stakeholder Matrix



Source: Food and Agriculture Organization of the United Nations

One axis is labeled importance and the other is labeled influence. Using this matrix, it is possible to plot stakeholders on the graph depending on what levels of importance and influence on the company or project they have. Influence does not necessarily determine importance or visa versa. It is also possible to see how the importance of a stakeholder may have shifted due to a crisis situation. Additionally, a company must divide stakeholders between both corporate and site

level. Corporate level stakeholders could potentially consist of international NGOs and the media, while at a site level they could consist of employees, and local communities.

The stakeholders appearing in the upper right corner of the matrix are those that should be focused on by the company. These are the stakeholders that hold not only high influence but also high importance. For example community leaders who have a lot of power in the decision making process (influence) and are part of the community that the project is targeting (importance) These stakeholders should be consulted and engaged with for every step of the closure process. Creating strong coalitions with these stakeholders is vital for the success of the project. Stakeholders falling in this category may be trade unions and local authorities.

Stakeholders falling into other areas of the matrix should also be accounted for as they could have little influence on the closing procedure but their engagement could likely determine how successful the closure is. These stakeholders will require special actions and initiatives to make sure their interests are accounted for. Employees would likely fall into this category of high importance, low influence. They are key stakeholders for any company and the success of a project depends on their involvement (high importance) but they do not have the power to change the company's decision to close a plant (low influence). The prioritization of stakeholders will aid a company in allocating scarce time and resources into efficient engagement practices that will result bear heavily on the outcome of a closure procedure.

### **c. Roles and Responsibilities**

The task of outlining new roles and responsibilities often has to be done rapidly during a crisis situation within a company. The creation of a task force during this time is a good option for many companies facing closure. This can lead to emergence of new leaders within a company who are suddenly confronted with heading a team to tackle a closure strategy. This task force should be highly specialized and contain members who are trained in closure procedures from an earlier date and who are also excellent communicators. Part of this task force should also be composed of an expert in public relations. This role will be key in providing the face of the company to the media and government officials. Task force members must also be allocated to site-specific issues and those that fall within the corporate sphere. If these profiles cannot be found within the company itself then they must be contracted from an outside source.

Creating a task force to manage closing procedures can be a difficult task, especially if employees are working on the task force along with their regular duties. It is important to set out all the tasks that need to be managed during a closure procedure. To complete this, a project management tool called a RACI matrix can be utilized. Within this matrix all tasks are broken down into categories that explain which member of the task force is Responsible, Accountable, Consulted, or Informed.<sup>43</sup>

Figure 7: Illustrative RACI Matrix

Tasks, milestones and decisions	Function A (e.g. Line Supervisor)	Function B (e.g. Manager)	Function C	Function D
Task 1	R	A		
Task 2	R	I	A	R
Task 3		C	A	R
Task 4	A	C	C	I

Source: MindTools 2006

Every member of the task force would be listed along the top of the matrix and the tasks, milestones, and decisions would be listed on the left for the entire duration of the closure process. Those members *Responsible* for certain tasks would be the task force member assigned to complete that specific job. Those members *Accountable* would be those who made the final decision and who are ultimate ownership over the completed task. There are also members who must be *Consulted* before a final decision is made and finally there are members who are not directly involved in the action but must be *Informed* that it has taken place.

When deciding on any new roles and responsibilities throughout a closure process it is important to maintain a strong leadership vision from the directors of the company. It is important that they communicate to members of the task force that corporate responsibility strategies will be maintained throughout the extent of the closure process and are an integral part of every proceeding.

#### d. Potential Partnerships

The attention surrounding cross sector partnerships has grown dramatically since the beginning of the economic crisis. Many companies are becoming increasingly aware that the support and expertise of organizations operating outside the business realm have the possibility to be a great asset during times of economic turmoil. Many heavy industry companies have had successful partnerships in place before the impact of the financial crisis was fully felt. These partnerships need to be reexamined to discover any new potential for the partnerships during the recession.

The keys to incorporating a partnership into a closure strategy could involve examining what resources and expertise are needed to complete the project in the most sustainable way possible and then outlining what resources could be best utilized through a partnership agreement.

When closing down an operating facility the biggest social impacts are likely to fall on local communities and workers. Exploring the possibility of partnerships with local municipal governments or trade unions has the potential to lessen some of the most severe effects of a closure. If companies agree to partner with local governments or trade unions in providing training programs or relocation programs their reputation within these communities can be preserved. Partnerships between the company and those stakeholders at the site of the closure ensure local issues are addressed.

Companies can also look to form partnerships to aid in restoration activities and the protection of biodiversity. The global mining company Rio Tinto has been involved in a long term cross sector partnership with the NGO Earthwatch Institute. This partnership uses the resources of both organizations to plan programs and work towards improving biodiversity strategies, scientific



research, communication and public understanding of biodiversity conservation. Financial support from Rio Tinto allows for global field research on biodiversity by Earthwatch and this in turn increases the scientific data and improves conservation outcomes on a range of issues.<sup>44</sup> This global partnership has widespread significance concerning Rio Tinto's worldwide presence.

As a result of this strong partnership Rio Tinto has reaped the rewards of becoming an industry leader in biodiversity conservation and the reputation that accompanies this. If the risk of downsizing arises from the crisis they will be prepared to properly rehabilitate areas where their operations were located and do so while maintaining investor confidence.

### **e. Leadership Vision**

As mentioned within the Roles and Responsibilities section, a strong leadership vision is essential during a sustainable closure process. It is crucial that project leaders have strong communication channels between them and all share a unified vision of what a sustainable closure process should look like, both at a site level and what the closure means to the corporation as a whole. The leadership vision must also be shared by the CEO of the company and not only between task force managers. It is the leaders of a company that create a crisis action plan so they must have a strategic plan to avoid insolvency and long term vision of where the company will be after the economic crisis has passed.

To lead during a crisis situation takes a very varied skill set. In a recent publication by the John F Kennedy School of Government and Harvard University it was argued that during a crisis a leader must focus on the core purpose. To accomplish this they must be able to know and grasp the key purpose, understand and align with reality, provide vision and embody values, and finally consistently assess and update the purpose.<sup>45</sup>

The same list of responsibilities could be applied to a leadership position during a closure process. It is important to understand the key purpose for closing the plant, and to be able to communicate this effectively. The leader of this process must understand the value that accompanies the closure for stakeholders. A leader in this position must also be able to align and appreciate reality by understanding why an adaptation is necessary and why the business may have to sustain losses to achieve this.

Furthermore, a leader in this position must provide vision and embody values. As investor confidence shrinks, companies with a high commitment to their core values will retain customers throughout an economic downturn. Finally, the leader of a sustainable closure procedure must consistently assess and update the purpose of the closure. This may involve periodically realigning the purpose of the closure to make sure it remains relevant to the current and future economic environment and moreover, the company's overall corporate responsibility strategy.

## **4. Action and Communication Plan**

### **a. Employees**

The model refers to employees as the workers of the company who are directly and indirectly affected by the closure. Employees are very important stakeholders in the process, since they are representing the company and at the same time they depend on the job the company is providing to them.

**Benefits** resulting from proper management of employees include Authorization to Operate, Win and Withhold Talent, Avoidance of Risks, Reputation, and Economic Sense (see section 4.3.2). It makes sense for the company to try to retain its employees, by reallocating them in different plants and quarries. In this way the company saves money for new recruitment and can keep the talent that has been developing and fostering for years. Since the employees already know how the company works, the company also saves time and costs that otherwise would have to be expended recruiting new employees. Moreover, big conflicts with employees and trade unions

can be avoided by giving an appropriate solution to every person. This will have a positive impact on the company's reputation and will consequently help them to get the authorization to operate in other sites.



### Action and Communication Recommendations

- **Dialogue with employees and trade unions**
- **Find suitable options for every employee**
- **Continuous communication**

It is basic to maintain a continuous dialogue with the employees in order to know their needs and intentions after the closure. There are a number of possible options that can be suggested to employees: reallocation in other plants, early retirement, economic compensation, and training and coaching for finding employment in other companies. All these options must be analyzed in depth to determine whether they are feasible for the company in terms of budget and other resources, and if they are well accepted by the employees. In no case should these options be imposed on them.

Continuous communication is key for releasing the anxiousness of the employees caused by the closure and the possible loss of their jobs. Trade unions and the media are probably going to be watching every step the company is taking and therefore a proactive approach with them might be strategic for the enterprise, as it will be mentioned in section 4.4.6 (Final Reporting).

#### **b. Suppliers and Customers**

Players in the extracting industry are for the most part operating in a business to business environment. Suppliers comprise therefore those businesses that supply the operating company with the necessary commodities or services to function effectively (such as transportation, construction and energy companies for the necessary infrastructure). Customers are those companies that utilize the resources further (e.g. construction companies, steelworks, pipe factories etc).

It can be assumed that the size of the suppliers and the customers often align with the size of the extraction enterprise itself. Large companies are likely to have a global network of international suppliers and customers; whereas small local companies will be integrated into a small regional or national supply chain. The effect of a plant closure will be less impactful on global suppliers /customers than on a local supplier/customer as these are unlikely to benefit from diverse income sources. A company's responsibility towards its suppliers/customers therefore depends on their dependency degree on the business. An effective and transparent communication strategy is nevertheless important in both cases.

**Benefits** resulting from supporting suppliers/customers in the post-closure phase include mainly an increase in Reputation and easier access to Authorization to Operate. For large suppliers/customers, evidence of a post-closure relationship and support as well as a transparent

communication strategy could lead to an increase in their cooperation scope. Smaller suppliers/customers can advocate locally for the business which will facilitate the acquisition of potential future licenses to operate.



### Action and Communication Recommendations

- **Identify degree of dependency on business**
- **Integration into other supply chains in area/industry**
- **Collaborative agreement with government**
- **Early communication**

#### Actions

Companies should identify the degree of dependency of the suppliers/customers and consequently prioritize the level of post-closure engagement accordingly. In case suppliers /customers are very dependent on the company, an effort should be made to integrate into supply chains of other companies in the area/industry. Additionally, collaboration with the government regarding financial or alternative support of the customers/suppliers could be taken into consideration.

#### Communication

Early communication is important. Suppliers/customers can consequently identify alternative business opportunities, which could prevent a domino effect of business closures.

#### c. Local Community

The local community refers to

*‘the people living around the operating site who are directly affected (both positively and negatively) by the company’s activities. The geographical scale of “local” varies enormously, ranging from communities literally adjacent to the site, to isolated settlements spread over thousands of square kilometers around mines in sparsely populated areas’<sup>46</sup>.*

Furthermore, special attention has to be paid to organizations and institutions that are directly supported by the company during its operation phase such as schools, clubs, cultural associations or health care centers and energy providers.

A company’s level of responsibility towards its local community is linked to the degree of dependency of the community on the company. A local community with a diverse local economy will have to be less supported than one with a very concentrated source of income. A company has therefore to understand its influence on social aspects such as health, education, poverty and culture and respond to the expectancy of the community to continue these services<sup>47</sup>. A solution to support these organizations during the post-closure phase is therefore of utmost importance.

**Benefits** from a continued community engagement include *reputation, authorization to operate* and *avoidance of risks*. A company's reputation can easily be at stake during the closure of a site and committed community support can aid to restore or maintain the corporate image amongst its local stakeholders. If involved effectively, the community is also more likely to collaborate rather than demonstrate which can lead to a smoother post-closure process. At the end, the evidence of such a collaborative and long-term community involvement will likely facilitate the acquisition of future licenses to operate.



### Action and Communication Recommendations

- **Prioritization of services**
- **Evaluation of financial support alternatives**
- **Creation of Foundation for continual community support**
- **Consultation and collaboration**

#### Actions

Due to the crisis the company will probably have to prioritize the services which will be continuously financed. An opportunity and risk assessment is thereby recommended in order to identify the areas in which the community is most dependent on the enterprise. Furthermore three sustainable post-closure engagement options should be considered:

- Continue project funding until a given date
- Find alternative funding
- Give infrastructure for free and educate local community regarding maintenance (e.g. water supply)

Foundations could be established in order to continue providing certain corporate services. An example composes the Rössing Foundation in Namibia<sup>48</sup> – established by Rio Tinto.

#### Communication

The community should always be kept aware of the status of the company's post-closure commitment. Regular newsletters or meetings are recommended. Stakeholder engagement is vital during the entire process (e.g. workshops to learn necessary skills, brain storming sessions, status briefing).

Furthermore consultation with community leaders and the government is necessary to identify how the services can be continued<sup>49</sup>.

#### d. Peripheral Businesses

Peripheral businesses are Small and Medium Enterprises that surround the site and provide good and services for the employees (ex. Restaurants, bars, shops, etc.). Since these businesses depend to certain extent on the company (often to great extent) they can be severely affected by its closure.

**Benefits** resulting from taking peripheral businesses into consideration and helping them to prosper include *Avoidance of Risks* and *Reputation*. This will help the company to gain a better image and reputation, since it will not be accused of flying in and out the community without taking the local businesses into account. As a result, the community will be more satisfied with the company's behavior.



#### Action and Communication Recommendations

- **Initial communication about plan closure**
- **Plan to integrate them into the local economy**
- **Collaborative agreement with local government**
- **Continuous communication**

Initial communication is crucial for the peripheral business sector because it will give them the chance to prepare themselves for the impact the closure will have on their revenues. Initial communication must be given as soon as possible, always taking into account the situation and interest of the company, but giving peripheral businesses the chance to find new alternatives.

The company should also help these businesses become integrated into the local economy. In order to successfully achieve this goal, the company could consider a partnership with the local government, one of the main actors promoting growth and development in the area.

Finally, continuous communication with both the local government and SMEs should facilitate that every business finds a way to survive once the closure has been finalized.

#### e. Environmental Rehabilitation

According to the World Business Council for Sustainable Development (WBCSD), rehabilitation is “the process by which the site is restored to a level which is both environmentally and aesthetically acceptable<sup>50</sup>. Rehabilitation should be a continuous process in the operational phase of quarries and cement plants. In this phase, rehabilitation may include decommissioning of plant equipment for redeployment or resale as scrap, or reuse or demolition of disused structures<sup>50</sup>.

However, the focus of this paper relies on the closure phase, in which environmental rehabilitation is also crucial.

It is important to remark that the heavy industry, and more specifically the cement sector, has a very high impact on the environment. This is mainly due to the extraction of raw materials which takes place in the quarries and leads to landscape impact, deforestation, soil destruction and biodiversity loss. Therefore, restoration of the site after the closure of the quarry is needed to bring the environment back to the same state in which it was before. In some cases, when rehabilitation is properly managed and the site conditions are favorable, the ecologic value of the site after the rehabilitation can be even higher than the original. This can be done for example by leaving small lakes which will attract many different animal species.

**Benefits** resulting from adequate rehabilitation practices include *Authorization to Operate*, *Avoidance of risks* and *Reputation*. First of all, the results of rehabilitation are crucial for the intangible assets of the company, since they will influence their overall reputation. Furthermore, proper rehabilitation will reduce the possibility of receiving fines for not complying with the law and of generating conflict with stakeholders. The main stakeholders affected by the environmental restoration of a quarry are generally the local communities and other actors of civil society, such as environmental NGOs. Companies must keep in mind that if they do not perform properly during the plant closure process, they are likely to lose the community's trust and therefore the license to operate.



A good example of rehabilitation of a cement quarry or plant is the case of a Holcim Polpaico cement facility located in Cerro Blanco, Chile. The quarry, located in an arid desert region, had a size of 800 hectare and was in use for 50 years. A rehabilitation plan was designed to restore the large areas of soil and biodiversity degradation. This plan involved creation of green spaces, vegetation restoration, soil restoration, morphology restoration and slope stabilization. The rehabilitation program started to work in 2002 and in 2005, 52 hectare had already been rehabilitated into fields covered with native vegetation.<sup>51</sup>

Another example is the Loy Yang Initiative for sustainable rehabilitation and closure planning, developed in Australia by LYP (Loy Yang Power, Victoria's largest energy producer), the Earth Systems group of companies and the international services company GHD. This initiative is based on a semi-quantitative, multi-criteria decision making analysis technique developed to satisfy the special circumstances of the Loy Yang mining project. The new process developed had a large number of benefits and was seeking to involve many stakeholders, such as community and government, in the refinement of the closure process.<sup>52</sup>

But not all the examples are positive. As explained previously (section 3.2.2), Mhangura Copper Mine (MCM) in Zimbabwe is a clear case of unsustainable mine closure where no proper rehabilitation methods were used. The lack of backfilling or slope stabilization lead to the risk of landslides, the removal of vegetation resulted in biodiversity loss and modification of drainage, and the alteration of landscape was severe.<sup>53</sup> This shows how important rehabilitation is in the closure process in order to minimize the ecological, health and safety risks.

## Action and Communication Recommendations

- Stakeholder engagement
- Partnerships
- Hazard assessment
- Training
- Land rehabilitation and future use
- Continuous communication

Environmental rehabilitation should be a result of stakeholder engagement, being identified as a need for prioritized stakeholders. Actors that must be involved in the rehabilitation process are the property owners, community officials and representatives.

Partnerships with different sectors of society, such as schools and clubs, might be very useful for the practical work (ex. Ecological surveys and tree planting). Besides, NGOs can be a relevant source of recommendations for good practices, which will enrich the process with innovative ideas. The role of partnerships will be explained later on, since they constitute one of the main cross-cutting actions of the model.

Security is very important during this step. On the one hand, a hazard assessment should be done prior to the rehabilitation of the site. This assessment will help to find out if hazardous materials have been used and where they are located, and which areas suffered localized spills and other contaminations. On the other hand, training and protection from hazardous substances should be provided to people working on site rehabilitation. Finally, complete rehabilitation of the site must be developed and future use for the land must be determined. The site can potentially have an industrial, recreational or national conservation use.

Rehabilitation for sustainable closure is a process that should go beyond the legislation. The law changes in different regions and countries, while the preservation of nature and the commitment with stakeholders should prevail in every closure process. Continuous communication about the rehabilitation progress through press releases and publications to different stakeholders, such as the government, community and NGOs, is crucial for the success of the whole closure strategy.

### f. Infrastructure Dismantling

Decommissioning is the closure of an industrial facility followed by the removal of process equipment, buildings and structures<sup>54</sup>. This can include further rail infrastructure, water supply infrastructure or accommodation and administrative facilities. Although some decommissioning processes are required by law, historically, sustainable dismantling strategies have not been considered a very important aspect of a site closure strategy<sup>55</sup>.

Nevertheless these considerations compose a key element in a holistic site closure approach. A company should neither ignore increased pressure from the community regarding environmental commitment nor the predetermined post-closure land use which is important in order create a sustainable balance of the land (between agricultural, residual, industrial and conservation purpose)<sup>55</sup>.



**Benefits** resulting from sustainable dismantling practices include ‘Authority to Operate’ and ‘Economic Sense’. The reuse, resell or recycling of infrastructure material can be financially viable and can avoid administration costs resulting from potential law suits (for ignoring environmental commitment). Furthermore, a sustainable dismantling strategy can be an asset for any potential future tender as a government is more likely to offer a license to operate to a company with a responsible exit strategy.



### **Action and Communication Recommendations**

DP. Murphy, R.C. Marshall and G.Duff evaluate critically in their paper on ‘Demolition – the forgotten closure strategy’, four demolition methods, which should be taken into consideration in the development of a sustainable demolition strategy. For the dismantling strategy of a plant, more than one alternative might be appropriate which requires a detailed assessment of the site.

- **Alternative Use**
- **Re-use Sale**
- **Salvage/ Recycling**
- **Disposal Burial**
- **Continuous Communication**

#### **Alternative Use**

One of the most sustainable dismantling choices provides the ‘alternative use’ option. Thereby a company identifies through stakeholder engagement the assets that can be of substantial benefit to the community after the plant closure. The earlier this process begins the more likely it is that an appropriate alternative purpose can be identified. An example of such an approach is the Wheal Hughes Copper mine in South Australia. After being established in 1860 and following a long operational interruption, the mine had to be closed down for good in 1993. Consequently this mine was acquired by the local council and developed as a tourist mine, which opened in 1998<sup>56</sup>.

#### **Re-use Sale**

Crucial for a re-use/sale strategy are the pre-closure maintenance and repair processes to ensure that the assets will be fit and financially viable for re-use/sale at the time of the plant closure. Furthermore, the appropriateness of this alternative depends on the market demand at the time of decommissioning. Sales strategies can include tender, auction and private treaty and the costs for dismantling and transportation of the assets must not be ignored in the valuation of the component. For example a 18MW Power house was taken from the Big bell Gold Mine (Western Australia) and was shipped to Hungary for further use<sup>57</sup>.

#### **Salvage/ Recycling**

The recycling strategy is still a challenging task as many resources cannot be recycled and the remoteness of many sites further aggravates this process. However, the progressively improving technology is likely to facilitate this process in the future. Currently there is a salvage/recycling

market for the following materials: structural steel, aluminum, copper wire, high tensile steel, pump metals, polypipe and conveyor belts.

### Disposal/Burial

The least sustainable alternative as well as legally and logistically fairly unfeasible, disposal/burial is the most unpopular decommissioning strategy. However it has to be taken into consideration as companies will use it as a last resort.

### Communication

Throughout the dismantling process, relevant stakeholders should be informed about the proceedings. Achievements as well as challenges and potential failures should be communicated in order to prove the transparency of the course of action. Furthermore Community brainstorming sessions on consecutive use of the infrastructure could be introduced.

## 5. Crosscutting Actions

### a. Monitoring

Monitoring is

*“a continuous management function that aims primarily at providing program managers and key stakeholders with regular feedback and early indications of progress or lack thereof in the achievement of intended results. Monitoring tracks the actual performance against what was planned or expected according to pre-determined standards. It generally involves collecting and analyzing data on program processes and results and recommending corrective measures”<sup>58</sup>.*

Many companies have monitoring systems in place during the operational phase but it is vital to establish the necessary indicators to measure the effectiveness of post-closure performance. Warhurst and Echavarria (2000) propose in their presentation on ‘planning for closure & sustainability indicators’<sup>59</sup> a set of crosscutting indicator categories, appropriate for consideration. Albeit set up before closure, indicators in these categories should continue in the post-closure phase.

Table 3: Post-Closure Monitoring Indicator Guidelines

Goal	Family	Examples
<b>Social Responsibility</b>	Social Legacy	Sustainable Community Development and Education Programs
		Lasting Partnerships
<b>Environmental Sustainability</b>	Pollution Containment	Mitigation Plan
	Reclamation	Biodiversity Conservation
		Site Reclamation
		Revegetation
	Post-Closure Land Use	Overall Restoration
		New habitats created
<b>Economic Sustainability</b>	Economic Retrospect	Socio Economic Benefits to Local Communities such as services, suppliers or jobs

Source: Warhurst and Echavarria, ‘Planning for Closure & Sustainability Indicators’

**Benefits:** These indicators should be developed through stakeholder engagement in order to gain more weight and can consequently yield several benefits contributing to a sustainable closure process. A sound monitoring system transmits the authenticity of the company to support the environment and the community in the post-closure phase. This is likely to facilitate future stakeholder collaboration and easier access to *Authority to Operate*. Furthermore, the qualitative data provided strengthens any potential argument in a stakeholder dialogue. With regard to the post-closure time framework, a monitoring system can help to establish the necessary post-closure timeline and the appropriate milestones therein. Companies will be more aware about any potential socio, economic or environmental issue arising which facilitate prevention and mitigation measures and contribute to *Avoidance of Risks*.



Last but not least, the data gathered during the process could provide learning material useful to optimize the process in the future.

### **b. Partnerships**

There are actions that fall within the sustainable closure model that have a cross cutting function across all involved stakeholders. Partnerships are one of these actions. Partnerships have been on the rise since the Rio Earth Summit 1992, when they were declared the way forward for development<sup>60</sup>. The ability to rely on the knowledge and resources of an alliance during a crisis situation has become an important asset.

A partnership can take on many meanings, the International Business Leaders Forum, an organization working to enhance businesses contribution to society, defines partnership as cross sector collaboration in which organizations work together, committing resources as well as sharing risks and benefit, to achieve sustainable development goals.<sup>61</sup>

This report has previously discussed partnerships as part of the *Setting the Framework part b*. This was to prepare the users of this model of the potential that partnerships can bring to their closure actions. Partnerships are also described as a *Cross Cutting Action* to further understand that they can have a positive effect on actions concerning almost all major stakeholder groups and take on a key role in the implementation of the *Action and Communication* planning.

**Benefits** resulting from partnerships as a cross cutting action are the following. Partnerships provide an opportunity for companies to better engage stakeholders and give them a greater pool of resources to work from to see through the closure activities in a sustainable manner. A partnership with a trade union for example would aid a company in *Avoiding Risks and Liabilities* by working closely with an organization that understands employee concerns and needs. By communicating effectively with trade unions, employee conflicts and the risks that accompany them would be lessened. The loss of jobs in small, one industry communities can be a very emotional undertaking and if not managed and negotiated properly can lead to demonstrations and strikes. This can be both damaging to the moral of employees that stay and also damaging to for the company reputation.

Partnerships with trade unions and local labour authorities can also help to maintain employee confidence in a company. The crisis will come to an end, and when it does companies will want to be able to *Win and Withhold Talent*.

A partnership with the local community could also be carried out to aid in restoration activities. Local communities would hold the knowledge companies are seeking when designing community based restoration activities. Successful completion of these activities improves *Reputation* and moreover gives *Authorization to Operate*.

Furthermore, partnerships can often make *Economic Sense*, instead of hiring outside contractors to handle restoration activities, the knowledge and skills of an environmental NGO can aid in this process while companies would be relieved of some of the financial burden of restoration activities, especially important in tough financial conditions. The expertise the NGOs can bring to these activities can also prevent the occurrence of fines later on due to inadequate environmental rehabilitation.

Partnerships can therefore act as a fundamental cross cutting action to ensure Action and Communication plans involving stakeholders and carried out effectively.

## 6. Final Communication

This final step is essential for the rapping up of any closure process. Final reporting has the objective of communicating to different stakeholders how the closure process has developed and which goals have been achieved. It is important to stress the difficulty of determining when a closure process completely ends. Therefore, final communication might consist of different steps, not necessarily taken at the same time.

**Benefits** resulting from final reporting include ‘Avoidance of risks’ and ‘Reputation’. In general terms, it can be stated that, since the company’s actions are going to be scrutinized in detail, public relations and communication are key for guaranteeing transparency and the good image of company in the long term.



### Action and Communication Recommendations

- **Internal report with record of activities**
- **Best Practice dissemination**
- **Press releases- proactive approach**
- **Open to feedback from different**

As stated above, the communication strategy should target both internal and external stakeholders.

On the one hand, an internal report should be developed by the company in order to have a record of activities. This report will be very useful in future closure situations, when the challenges aroused and results obtained in the present closure might constitute a good lesson for improvement. The company should consider to what extent is possible to share this kind of information with competitors, in order to enhance sustainability practices in the sector without risking the value of the company and its situation in the market.

On the other hand, press releases should be used to communicate with the local community, NGOs and public in general. A proactive approach with the media might be beneficial, as the company can provide the information before other misleading or false statements arise.

It will be very enriching for the company to be open to feedback from all different stakeholders (eg. Employees, suppliers, customers, local community and peripheral businesses). This feedback can be helpful before, during and after the closure in order for the company to improve and to demonstrate a real commitment with sustainability.

## 5. Holcim Case Study

### 5.1. Introduction to Holcim

Holcim was founded in 1912 in Switzerland and is currently one of the world's leading suppliers of cement and aggregates (crushed stone, sand and gravel), ready-mix concrete and asphalt, and related services (such as consulting, research, trading and engineering).<sup>62</sup> The company gives employment to about 85,000 people and it has a strong market presence in over 70 countries on all continents.<sup>63</sup> Figure shows the countries with a Holcim Group and the countries with a Holcim affiliate in the world. As it can be observed, the company operates in both developed and developing countries.

*Figure 8. Holcim's presence in the world*



Source: Holcim website<sup>64</sup>

Holcim registered sales of over 25 billion Swiss francs in 2008. Almost half of this is generated in emerging economies.<sup>63</sup> However, the global crisis and its repercussion in the construction sector have led to a decrease in sales at the end of the year 2008 and beginning of 2009.<sup>65</sup> In order to offset the effects of this decline, Holcim has established cost-cutting programs and is working on the quick shutdown of excess capacity.<sup>63</sup> As part of this strategy, in 2008 the company planned the closure of two plants in the U.S. (Dundee, Michigan; Clarksville, Missouri) and of one in Spain (Torredonjimeno, Jaén).<sup>66 67</sup> The closure of the latter is the main focus of this case study.

Figure shows the different plants located in Spain. Apart from the plant in Torredonjimeno, Holcim is still operating the rest of its Spanish plants, although the activity has been stopped in some occasions to adapt the production to the demand and to reduce stock.<sup>68</sup>

Figure 9. Company information in Spain

Holcim (España), S.A., Spain	
Chief Executive:	Alain Bourguignon
Personnel:	2,120
Production capacity:	5.5 million t of cement
Carboneras plant	■
Gádor plant	■
Jerez plant	■
Lorca plant	■
Torredonjimeno plant	■
Yeles plant	■
Shareholdings:	
Holcim Aridos S.L.	●
Holcim Hormigones S.A.	▲
Holcim Morteros S.A.	▲

Source: Holcim website<sup>69</sup>

Legend	
■	Cement
●	Aggregate
▲	Other construction materials and services

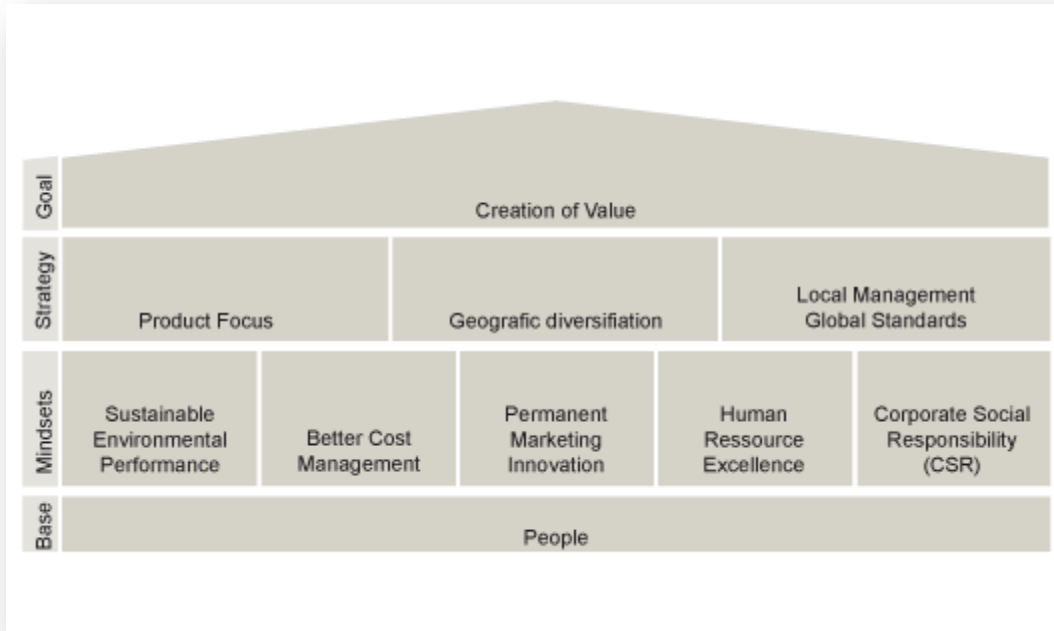
Holcim has been present in Spain since 1980 and develops its activity in the regions of Andalucía, Castilla-La Mancha, Cataluña, Galicia, Madrid, Murcia and the community of Valencia. Currently the company gives employment within Spain to more than 2,000 people.<sup>70</sup>

### 5.1.1 Current CSR Strategy

Holcim’s main objective is the value creation. As it can be seen in the table, the company takes a holistic approach, considering the three aspects of sustainable development: economic, environmental and social performance. Corporate Social Responsibility (CSR) is one of the main principles of the company, and is integrated in the core business. According to Holcim, the CSR approach is strategic, not philanthropic. The company recognizes that mainstreaming CSR into its functional areas has helped it to ensure a long-term success. Moreover, it has been acknowledged the “industry leader” for four years in succession by the Dow Jones Sustainability Index.<sup>71</sup>



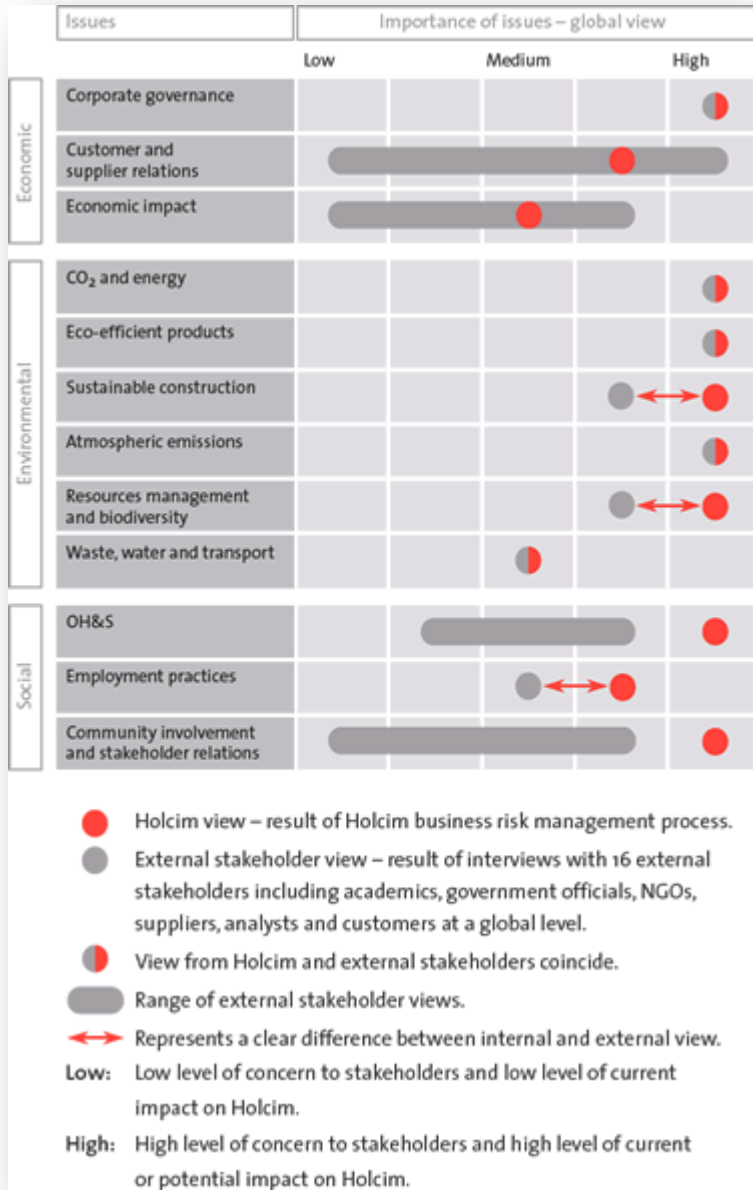
Figure 10. Holcim strategy house - base for value creation



Source: Holcim website<sup>72</sup>

The main priorities for Sustainable Development at Holcim have been confirmed with both global and local stakeholders, using the Sustainable Development Materiality Review (materiality is discussed further in section 4.4.3.a). This process aims to ensure that relevant sustainability risks and opportunities are integrated in the company’s broader business risk management system. Figure shows the results of the Group-level materiality review.

Figure 11. Sustainable Development Materiality Review



Source: Holcim website<sup>73</sup>

These results reflect the different views of 16 external stakeholders from various disciplines and geographic locations, including academics, analysts, business organizations, customers, government representatives, intergovernmental organizations, NGOs, suppliers and trade union representatives.

In general terms, it can be stated that Sustainable Development Materiality Review confirms that Holcim’s Sustainable Development priorities match sustainable development material issues of concern to stakeholders.

Holcim's CSR priorities are the following:<sup>74 75</sup>

### **Occupational Health and Safety**

The company acknowledges that health and safety issues are vital for its success. Therefore, Holcim aims to achieve its vision of "zero harm" through different initiatives that take into consideration various stakeholders such as the employees, subcontractors, third parties and visitors.

### **Climate and Energy**

The increasing worldwide population growth has led to a raise in the demand for high energy efficiency and lower CO<sub>2</sub> emissions in the construction industry. In order to comply with this demand, Holcim needs to continuously work in the optimization of products and processes, with an important focus on research, development and innovation.

### **Community Involvement**

As it has been stated above, the company claims its CSR approach is strategic, not philanthropic. This means that it goes beyond the concept of corporate donation, aiming to encourage capacity building of people and organizations through investment and engagement. The main areas of work are education provision, infrastructure building and sustainable community development.

### **Stakeholder Engagement and Partnerships**

The engagement of different stakeholders is key for success, and the company is therefore committed to use their input for decision making. Besides, Holcim has developed a network of external partners at corporate and local level. Examples of strategic corporate partnerships are the ones with GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit) and IUCN (International Union for Conservation of Nature). The latter partnership is particularly relevant in this study, due to its role in the closure of the Torredonjimeno plant in Spain.

### **Sustainable Construction**

Holcim supports research and development in order to find innovative and sustainable solutions in the construction industry. With this purpose, the company established the Holcim Foundation for sustainable construction.<sup>76</sup>

### **Resource Conservation**

Holcim's activities rely on the long-term access to raw materials for the production of cement and aggregates. In order to minimize the impact on these resources, the company says it is committed to make environmental and social impact assessments in every step of quarry operations, using WBCSD CSI (Cement Sustainability Initiative) guidelines. The partnership with IUCN is very important here.

### **Sustainable Product and Service Solutions**

Process and product innovation as well as sustainable construction are the main focus of the Group's ongoing innovation strategy.

The main areas of focus for CSR in Holcim Spain are the following:<sup>77</sup>

### **Education**

Holcim considers education is key to achieve sustainable development. Their intervention covers both basic education (school and high school) and superior education (university).

### **Community Development**

According to Holcim, the company pretends to promote the development of communities through capacity building.

#### **Social Engagement Scorecard (SES)**

This is used to review the community initiatives of the company, providing a framework for selecting and implementing projects that are aligned with Holcim's CSR policy and helping to evaluate the progress and success of those projects.<sup>78</sup>

### **Social Infrastructure**

The provision of infrastructure is very linked to Holcim's core business and the company's knowledge and advice can have great benefits for the communities and other stakeholders.

### **Dialogue with Stakeholders**

Dialog helps Holcim to establish a direct contact with stakeholders, reducing corporate risks and finding common objectives that can lead to joint projects.

#### **Community Advisory Panel (Comité Local de Información y Seguimiento- CLIS)**

This is a communication tool used for providing information about the economic, environmental and social activities developed by one installation. It consists on periodical meetings with local groups in order to jointly organize and coordinate important activities at a local level, such as training and assistance.

#### **Local Environment Assessment (Valoración del Entorno Local- VEL)**

This tool helps Holcim to get a better understanding about the socioeconomic environment of the areas where the company works, about the stakeholders' concerns and about their perception of the company.

## **5.2 Holcim's CSR Strategy Adaptation**

As mentioned above (section 5.1.1), the current global crisis is having a significant impact on Holcim. Therefore, priority is given to the financial stability of the company and the focus is on those aspects that management can influence, such as cost-cutting and shutdown of excess capacity.<sup>79</sup>

In Spain, the crisis is having a bigger impact than in other countries and negative economic growth rates are predicted for the next two years.<sup>80</sup> For that reason, Holcim Spain needs to have a new mentality, focusing on CSR projects with high positive social impact and low cost. CSR activities have to be planned according to the results of the Local Environment Assessments (Valoraciones del Entorno Local- VEL), the Local Committees for Information and Monitoring (Comités Locales de Información y Seguimiento- CLIS) and the Social Engagement Scorecard (SES) (see section 5.1.2).

Holcim needs to focus on CSR activities that allow the company to:

- Establish a direct and positive contact with the stakeholders
- Know stakeholders' concerns and their perception about the company
- Analyze the risks at corporate level
- Facilitate the efforts in corporate communication
- Take advantage of the know-how and human resources of the company when possible instead of hiring external people
- Collect the opinions of the different stakeholders in relation to the main CSR issues

- Provide with the necessary social information for partnerships

According to Manuel Soriano, Sustainable Development Director of Holcim Spain, the main consequence of the crisis on CSR has been the reduction of the budget that leads to the urgent need for prioritization. CSR activities that are not necessary are being cancelled, and only those that are essential, such as education, will prevail.

*Now Holcim is “Spending Less but Spending Best” (See Appendix B p.77).*

### 5.3 Torredonjimeno Plant Closure

The closure of Holcim’s plant in Torredonjimeno, introduced previously in section 5.1.1, is very interesting and appropriate for this study, since it was forced as a result the global crisis situation and according to Holcim a sustainable process was of utmost importance in order to maintain intact the image and reputation of the company.

*The main benefits for Holcim by closing sustainably are “respect and image” (See Appendix B p. 78).*

Torredonjimeno is the name of the village where one of the six cement plants Holcim operated in Spain was located (see Appendix A, p.76). In 2008, the company decided to close the plant in Torredonjimeno and the quarry in Jamilena, a nearby village, from where they extracted the raw materials for the plant. This cement plant had been operating for 53 years, and it was officially closed the 31<sup>st</sup> of December of 2008.

In section 6, the case of Torredonjimeno’s plant closure will be contrasted with the Sustainable Closure Model in order to analyze Holcim’s closure strategy and to study the usefulness of the Model, identifying its strengths and areas of improvements. The main sources of information for the analysis of Torredonjimeno’s plant closure have been mainly press releases, information from radio and television, and the interviews with Manuel Soriano, SD Director in Holcim Spain, and Pedro Regato, Senior Programme Manager in the International Union for the Conservation of Nature (IUCN).

As explained in previous chapters (sections 5.1.1 and 5.2), the global crisis and its repercussion in the construction sector have clearly hit the company. According to Manuel Soriano, SD Director of Holcim Spain, the main reason for the closure of Torredonjimeno’s plant was the need for adaptation to the new situation of the market. Also, this plant was the smallest and the less profitable of the plants in Spain and the technology was obsolete.<sup>81 82</sup> According to Manuel Soriano, the main issues in the closure of the plant and quarry have been the restoration of the site and the relationship with employees. In terms of restoration, the IUCN plays an important role in this study. Holcim and the IUCN signed a global agreement in 2007 to work jointly on ecosystem conservation and biodiversity issues relevant to the building materials sector.<sup>83</sup>

*“The engagement with the IUCN is driven by the conviction that biodiversity conservation issues will play an ever more important role in our long-term resource and reserve strategy. IUCN and its network provide biodiversity expertise and enable Holcim to work closely with relevant stakeholders across the world.” (Markus Akermann, CEO Holcim Ltd.)<sup>83</sup>*

The Centre for Mediterranean Cooperation of the International Union for the Conservation of Nature (IUCN-Med) signed a more specific agreement with Holcim Spain in April 2009. This agreement has an 18,000 euro budget and will span six months in duration, involving a series of short term activities to bring about a Comprehensive Restoration Plan to adequately address environmental and social aspects in the closure of the quarry situated in the town of Jamilena.



The main activities done by the IUCN-Med and expert partners are visits to the quarry to carry out field work, elaboration of recommendations and guidelines for Holcim and surveys with people living in the area. The main goal of these actions is engaging all parties involved in the restoration process.<sup>84</sup>

However, the key CSR issue in the closure has been the relationship of the company with the employees. This relationship has changed over time and it

has been very important due to its impact on the company's image and reputation. When the closure was announced, on the 11<sup>th</sup> of November of 2008, employees and trade unions (CCOO and UGT) were clearly against it. According to the media, the company claimed it would make a big effort for the reallocation of employees after the closure, but the employees did not believe this statement<sup>85</sup> and thought Holcim was using the crisis as an excuse to close down<sup>86</sup>, since according to them the plant made less profit but no losses<sup>87</sup>. The trade unions suggested other possibilities, such as using the plant to elaborate a new product (white cement) or selling the plant to other company<sup>88 89 90</sup>. They even created a campaign against the closure, which was called "Holcim cannot be closed" (Holcim no se cierra, in Spanish) and was supported by a collection of signatures and a website<sup>91 92 93</sup>.



The local government also rejected the closure from the beginning<sup>94</sup> and wanted to give incentives to the company in order to avoid it<sup>85</sup>. Several demonstrations took place in November and December 2008, involving other companies in the area, the inhabitants of Torredonjimeno and Jamilena, shops, schools, etc.<sup>82</sup>

However, although Holcim had meetings with the employees, trade unions and local government, it was made clear from the beginning that the closure was not negotiable<sup>85</sup>. According to Manuel Soriano, the plant of Torredonjimeno had a surplus in capacity and it did not make any sense to use it to make a new product or to sell it to another company, due to the current market situation. Although Holcim could not guarantee reallocation of all employees, it was open to negotiate with them from the beginning in order to find the best suitable solution after the closure<sup>95</sup>.

A few months after the official closure, the company believes the perception of stakeholders is positive and the trade unions respect the actions undertaken by Holcim. Is the closure being done in a really sustainable way? Which aspects could have been improved and which aspects can be considered best practices? All these questions will be addressed in the following section, where the case of Holcim's Torredonjimeno plant closure will be analyzed according to the Sustainable Closure Model.



## 6. Assessment and Review

The overall aim of the Assessment and Review stage of the SCM (see section 4) is to analyze the model's recommendations compared to concrete case study actions taken by Holcim during their closing process of a the Torredonjimeno plant and quarry.

The model will be reviewed and strong points will be highlighted along with areas where the model could improve when used in a real life situation, like the one Holcim is facing. Holcim's actions will also be reviewed based on what the SCM has suggested and existing areas of improvement will be mentioned.

### 6.1 Analysis of Sustainable Closure Model within Holcim's CSR Actions

#### 6.1.2 Setting the Framework

This section will provide a brief review of the *Setting the Framework* section by examining what the SCM suggests and also by giving a description of what Holcim's actions have been, information on these actions have been gathered primarily through direct interview with Manuel Soriano, the SD Director of Holcim. An overall assessment will then be provided for each step in the *Setting the Framework* section.

#### a. Key CSR Issues

##### SCM

The SCM model suggests that for company facing a closure the first step is to define what the "material issues" are for the closure process. These issues must be defined as what issues are key to their stakeholders, internal management processes, and commercial success. Although there is no specific tool to generate the material issues for a company as these issues would vary widely, the model does suggest a series of questions that business leaders could ask themselves to bring the key issues to the surface. It also gives a financial estimate to define materiality. The model then goes on to suggest material issues for heavy industry companies such as environmental impact and employment. The model stresses that these issues need to be faced early on and could improve communication with different groups if done correctly.

##### Holcim

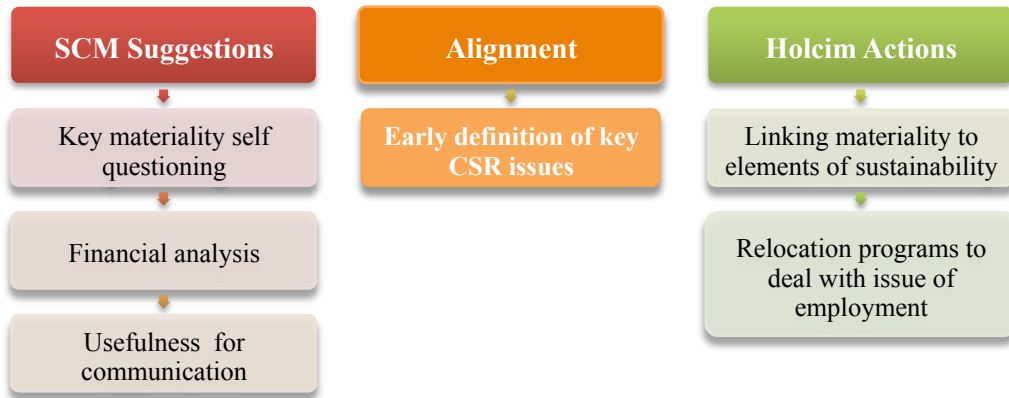
When facing the plant closure in Torredonjimeno, Holcim quickly defined the material issues for the project. They were able to pinpoint the key issues early on which aided in the closure process. For Holcim environmental restoration and employment issues were those that influenced the project the most. Manuel Soriano, the Director of SD for Holcim during the closure process stated the following regarding Holcim's decision on what made up their key CSR issues.

*"The key issues we consider is employment and then the restoration of the sites but mainly the employment, because employment is a social aspect but it is also an economic aspect for the municipalities. So, employment has been the key. And the key to the good result of the closing is due to high relocation." ( See Appendix B p.79 )*

Holcim, has therefore shown heavy commitment to not only define CSR issues early on but attach action programs like relocation of employees to protect what they feel are their material issues.



## Key CSR Issues Summary



### Assessment

The SCM model clearly states that key CSR issues must be defined for any closure strategy to be successful. Holcim carried out this analysis with clarity and foresight, which allowed the company to quickly put into place relocation programs for employees. This led to a successful relocation scheme that saw over 30 of the plant's 73 employees gain employment at an outside plant. Manuel Soriano describes this process,

*“This has been excellent. The workers are happy and also the site managers that have received the new workers are also happy. This is probably the best result of the closing.” ( See Appendix B p.79 )*

Where this step of *Setting the Framework* could improve in the SCM model could lie within how companies are recommended to define materiality. Although it may seem clear, for many companies key CSR issues can be lost when facing a crisis situation. Holcim tied their key issues to what aspects of sustainability the issues most affected. Since employment was both a social and economic concern in gained the forefront this proved to be a successful way to narrow down key issues for Holcim. The model could be improved by including this filtering tool for companies to best attach their materiality issues to elements of sustainability.

## b. Stakeholder Prioritization

### SCM

The SCM model recommends that key stakeholders be identified and prioritized based on a series of questions and a matrix tool to define stakeholder importance and influence on a project. The model assumes that some degree of stakeholder dialogue has taken place, as this is such a vital process for any company's CSR strategy, especially high impact companies such as those operating in heavy industries. Therefore the model suggests that during a crisis situation a company must readdress many stakeholder issues to determine whether the relationship with stakeholders has to be adapted. It is also important that companies examine stakeholders dependent on their potential impact on both site level and corporation wide activities. The model

also stresses that stakeholders that have little influence can still have significant impact on project implementation.

#### Holcim

Holcim did not describe a stakeholder prioritization process as was suggested in the model but the company did describe that it understood that the relationship with key stakeholders had changed during the crisis. Communication was increased to the stakeholders they prioritized as being key to the project's success.

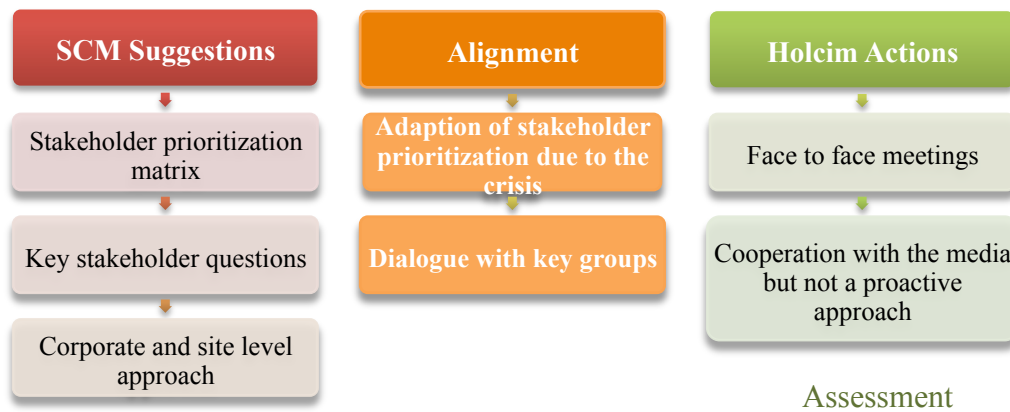
*“What we have considered as very important is the communication to them [employees]. We have been very very open in what we plan to do with the process, for example [we have held] meetings with labour authorities” ( See Appendix B p.79 )*

By meeting with labour authorities Holcim has recognized that these groups hold a lot of influence in the closure process but they did not limit communication to only these groups.

*“Workers have been number one, but also labour authority, municipality, customers, and subcontractors,” ( See Appendix B p. 79 )*

Holcim has been able to identify key groups and communicate project objectives with these groups which has aided in the closure process. In this way, Holcim has adapted to the crisis their company is currently facing and allocate resources in the most efficient way to address the concerns of these key groups.

#### Stakeholder Prioritization Summary



Although Holcim did not outline any stakeholder prioritization tools the company did describe an integrated commitment to cooperate and adapt to stakeholder interests during the closure process. Interestingly they did not consider the media as being a key stakeholder group while the media can play a strong role in improving or damaging a company's reputation during a closure process. Holcim considers the media as merely a channel for information and describes their relationship with the media as follows:

*“Of course we have always been ready for the media, but the media is not the object of our communication. Of course we have been in contact, but not for informing them, we have provided proper and clear information, but as for the final stakeholder we are not interested in this channel as communication.” ( See Appendix B p.77 )*

Relations with the media is an area that the SCM model did not highlight but could be improved in providing some insight into how to deal with the media as a stakeholder during a closure process. Holcim has not escaped damaging media coverage as a result of the plant closure and this will be repeated with many companies that have found themselves in similar situations. The model could be improved by including a recommendation on how companies can decide to either deal proactively or reactively with the media as a stakeholder, and whether they will consider the media as a key stakeholder at all.

### c. Roles and Responsibilities

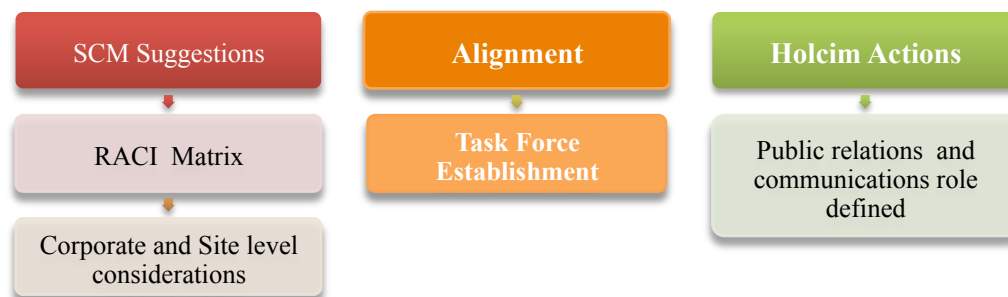
#### SCM

The model suggests clearly defining all new roles and responsibilities before setting out on a sustainable closure process. It suggests using a RACI matrix to outline roles and responsibilities that will arise out of a closure process. In this way the model aims to stress that the closure process can complicate existing roles within a company and add on extra stress to those with increased responsibilities to see the process through. The model also recommends that a special task force be put in place to deal with closure proceedings and that the people making up this task force should be experts in communication and company strategy both at a site and corporate level.

#### Holcim

As a response to the crisis and to help manage closure procedures, Holcim created a crisis committee. Holcim did not outline the direct roles, as this was internal information, but this task force was established to react to the crisis and help adapt Holcim's actions to what the company objectives entailed. The role of Manuel Soriano, the Director of SD during the closure process was also directly defined. The high importance to public relations was made clear and his communication role during the closure process was increased as he acted as the company speaker in interactions with authorities.

#### Roles and Responsibilities Summary



#### Assessment

Overall, Holcim's actions and SCM suggestions align quite well for this section of *Setting the Framework*. Holcim did not outline a specific tool for designating responsibilities during the closure process, due to the need to preserve internal process discretion. Both the SCM and Holcim outlined the need for a specific task force to navigate the company during times of crisis. The SCM outlines that this task force be comprised of key communicators for the company, a role that Manuel Soriano took on for Holcim during the closure process.

## d. Potential Partnerships

### SCM

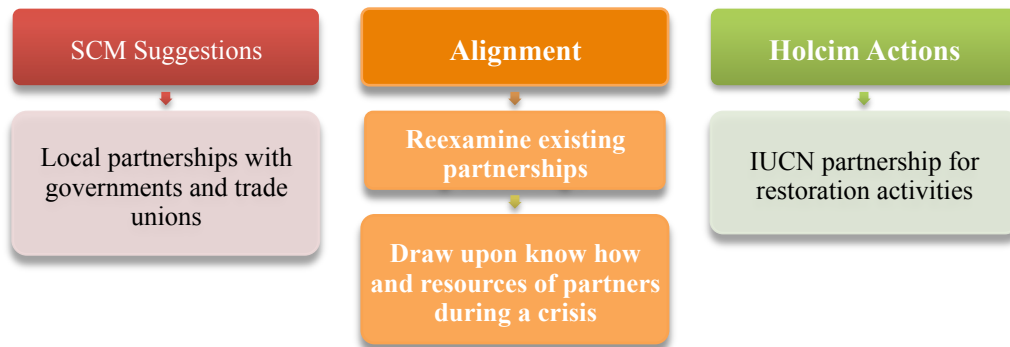
The SCM model recommends that increased attention be given to the potential usefulness of partnerships during the closure process (Section 4.3 Step Analysis part 3). It highlights the importance of reexamining existing partnerships in a time of crisis to draw upon resources and know how that these partnerships can tap into to alleviate economic stress. Furthermore the model outlines where partnerships can potentially have the biggest impacts for heavy industry companies, such as partnerships with local governments and trade unions. The example of Rio Tinto was given to highlight the success this company has experienced through a partnership with Earthwatch International.

### Holcim

A partnership with the IUCN has provided the expertise behind the initial stages of Holcim's restoration efforts during the closure procedure of Torredonjimeno. This action will be further assessed in the section of the SCM that examines partnerships as a *Crosscutting Action*, therefore only the actions that Holcim took to set the framework for this step will be assessed in this section. Holcim has channeled the global partnership that it shares with the IUCN to provide important know how within the restoration process of their quarry at Torredonjimeno. Although Holcim has internal processes for restoration that are repeated globally and on top of these processes they must adhere to legal obligations for each local site, they have been able to recognize that a partnership with the IUCN can increase their ability to see a successful restoration process completed. They understand that collaboration with the IUCN is one of the keys to this. Moreover, Holcim recognizes that partnerships are not best formed during a crisis but invested in before hand. When a crisis arises is when a partnership can then best be utilized.

*“The situation is clear, you cannot create an alliance in one day, in the crisis situation you are taking benefit of the work you have done. It is not that you are going to create an alliance because the situation is hard- you have to take benefit of your previous work”*  
(See Appendix B p 78.)

### Potential Partnerships Summary



### Assessment

Holcim has explored the option of partnerships during a sustainable closure procedure to a certain extent. The SCM model encourages all potential partnerships be explored during a closure process. In the case study of Torredonjimeno Holcim did not establish any local partnerships with trade unions or local governments. These groups were considered important stakeholders but were not partnered with to bring about any projects such as employee retraining. This could be a result of Holcim's unique situation at Torredonjimeno, but it could also be considered a lack of

capturing the full potential for knowledge sharing and collaboration with these groups. The IUCN partnership will be very beneficial to Holcim, but only addresses the environmental potential for partnerships, whereas the social benefits are existent as well.

The model does not stress the importance of maintaining and building partnerships outside of a crisis situation, something that Holcim has carried out. This could be an area where the model could improve. Although the example of Rio Tinto’s long lasting partnership is outlined, it is not directly stated in the model that partnerships are best maintained and encouraged to grow outside times of crisis. This could be a result of the scope of this model to stay within a crisis context. However, this important fact could be brought to attention.

### e. Leadership Vision

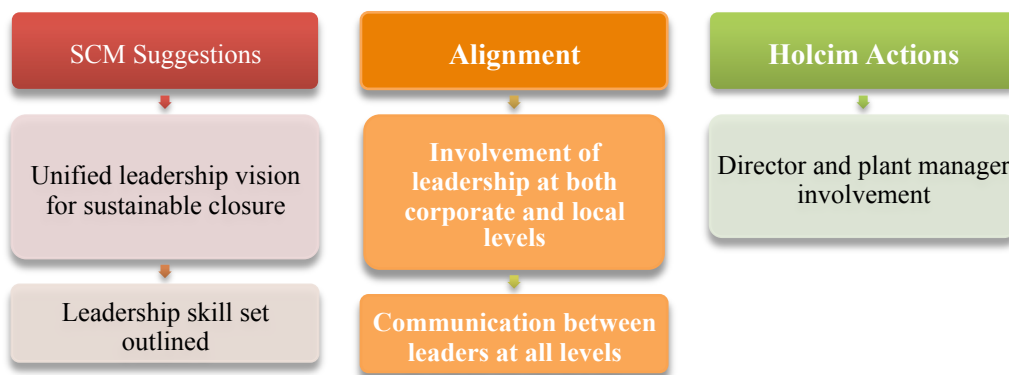
#### SCM

The final area of *Setting the Framework* that the SCM describes is the importance of having a clear leadership vision from the onset of the closure process. This section is tied in some ways to the Roles and Responsibilities section described early, but important enough that it is laid out as a significant consideration on its own. Leadership vision is a vital aspect of any crisis fueled action by a company. The model outlines a series of abilities a leader should have to focus on the core purpose of a sustainable closure process. The model also suggests that leaders carrying out a sustainable closure strategy should continually reassess what is important for the project at both a local and corporation wide level.

#### Holcim

Any in depth leadership considerations undertaken by Holcim were not outlined directly through the interview process however it was stated by Manuel Soriano that within the closure process the “top management of the company and plant managers” ( See Appendix B p.77) were involved. Holcim Group is routinely voted as an industry leader in sustainability field and has earned this honour for several consecutive years, so it could be assumed from record of commitment to responsible practices that the leaders of Holcim are committed to sustainability issues throughout the company.

#### Leadership Vision Summary



#### Assessment

The need to preserve internal strategies for a company like Holcim to tackle a crisis situation posed a challenge for the interview process to reveal in detail the extent of leadership activities. That stated, Holcim does promote active communication between plant managers and company

directors to guarantee a clear line of communication between closure process leaders. There are no glaring flaws evident in the SCM regarding promoting leadership vision at the onslaught of a closure procedure, but further outlining that all leaders at both corporate and local levels need to be involved could be a way to strengthen the model. Providing a tool for companies to identify which leaders involved need to have a unified vision of the closure and how they can best communicate with each other could be a lesson learned from Holcim's activities.

### 6.1.3 Action and Communication Plan

#### a. Employees

Employees are very important stakeholders in any closure process, since they are the most affected by it. In the case of Torredonjimeno, employment was one of the main focus areas together with the rehabilitation of the site.

#### SCM

The SCM stresses the importance of dialog with employees and trade unions. The company needs to be open for listening to their needs and suggestions. Besides, the company should try to find the best possible option for every employee after the closure. The main possibilities are the shift to other plants, early retirement of some workers, financial compensation, coaching and training and even recommendation to other companies.

#### Holcim

According to Manuel Soriano, one of the keys for the success of the closure has been the high rate of reallocation of employees. Out of the 73 direct employees the plant had, more than 30 have been transferred to other plants. They will receive some financial help and support in order to find a new house, schools for their children, etc.<sup>96</sup> On the other hand, some employees have been retired and some are working in demolition of the plant and restoration of the quarry. As a result, only a few of them are still unemployed.

Communication has been really important during the process. Holcim had several meetings with the representatives of employees and trade unions (CCOO and UGT) with the aim of negotiating the conditions for the closure.

#### Employee Summary



#### Assessment

In general terms, Holcim made a big effort in order to handle the difficult situation and get the best results for both the company and the employees. However, one aspect which could have been improved is the anticipation for communication about the closure. The employees were informed about the closure with less than two months in advance. However, this critic is arguable,

since it is in the interest of the company to inform the employees not too long in advance, considering the very high possibility of reduction in motivation and hence productivity before the closure, and the arising of conflicts. Besides, it is probable that the company was not able to predict the closure with more anticipation, since it was a consequence of the crisis and not due to the end of its life cycle.

In relation to the SCM, one of the main weaknesses could rely on the fact that the model just establishes a framework and gives general recommendations. Therefore, when a company is confronted to a real life scenario, it can have difficulties to figure out what are the concrete actions that should be taken in order to keep a balance between the interests of the company and the interests of the employees. For example, how long in advance the closure must be communicated is a decision that will be taken considering the specific situation. This is one of the reasons why the model assumes that there is already a CSR strategy in place in the company, and therefore this kind of decisions will not be so difficult to make. As mentioned above, this step of the model is crucial for the success of the closure and as such it should be considered with special attention.

## b. Suppliers and Customers

### SCM

The SCM proposes an analysis of the suppliers/customers' dependency on the company and the according adaptation of the measures. Whereas for very dependent suppliers/customers the search for new business might be appropriate, an effective communication for less dependent actors is sufficient. An early communication strategy is prone to generate the most successful results.

### Holcim

Due to the restricted timeline, Holcim could not inform the suppliers/customers far in advance. However, the company attempts to notify them about the continuation of the closing procedure. Considerations to forward them to other existing plants are made, yet no concrete actions have been undertaken so far.





### Assessment

The actions undertaken by Holcim are limited in relation to what is proposed by the SCM. The SCM's proposals set an inspirational target and a restricted timeframe might aggravate the complete integration of the existing supply chain, yet efforts should be made in this direction. As identified in section 4.3, benefits from continuing customers/suppliers post closure efforts include reputational increase and the facilitation of future licenses to operate. Nevertheless, the possibility that bankruptcy of the suppliers/customers could compose the reason for the enterprise's need to close should be taken into consideration in the SCM as this situation will impact the enterprise's support of its supply chain.

### c. Local Community

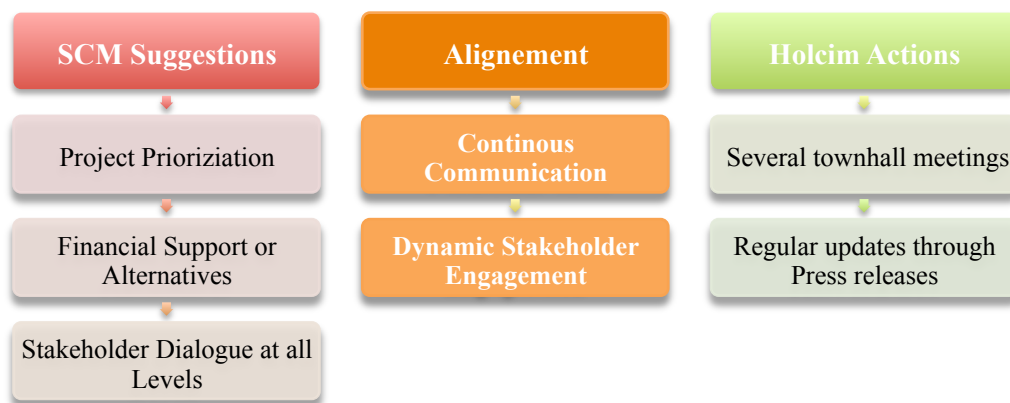
#### SCM

The SCM suggests a prioritization of the community involvement projects and the identification of financial support alternatives. The initiatives to transmit projects to other supporters and multiple skills transfer have been suggested. If financially feasible, the company could further establish a foundation for the community project continuation. The permanent community engagement on all level was highlighted.

#### Holcim

Due to the small scale of the Holcim site in Torredonjimeno, the community involvement did not entail any active financial support projects. The focus lay in responsible communication and appropriate information. With regard to the closure process, Manuel Soriano highlighted Holcim's effort for transparent and continuous dialogue with the local population through town hall meetings, press releases and other form of communication. He said "it must be an alive process in order to create mutual trust" (Appendix B, p.81)

### Local Community Summary



### Assessment

The different scope of Holcim's community engagement prevents a qualitative comparison between the SCM recommendations and Holcim's actions. With regard to the communication

strategy several conformities between the theoretical and the practical approach crystallize and Holcim's thorough communication approach can be acknowledged. However, Holcim's overall reactive communication approach does not align well with the pro-active suggestions by the SCM.

The SCM could elaborate on the different focus groups within community and propose actions and communications appropriately. Different forms of communications should be used when speaking to the locals, the head of the community or the representative of the organizations affected.

#### d. Peripheral Business

Peripheral businesses are often forgotten in closure situations, since the impact on them is not so clear or direct as it happens with employees or with the environment. However, as explained in section 4, this Small and Medium enterprises often depend heavily on the activity of the company that decides to stop its operations.

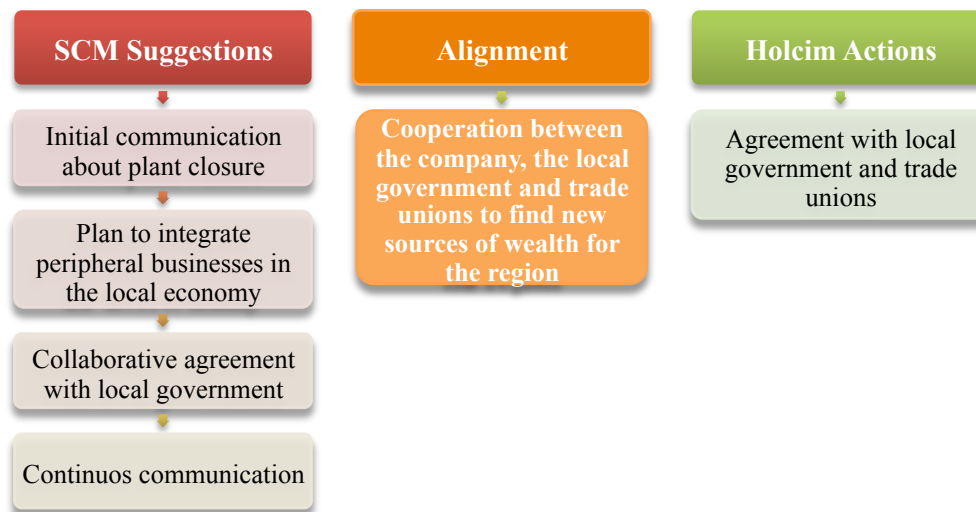
##### SCM

According to the Sustainable Closure Model, the company should focus its attention on communication and support of local development. Communication will help peripheral businesses to be prepared and look for suitable options that replace the revenues taken directly or indirectly from the company. The efforts for development must be translated into a concrete plan to integrate peripheral businesses into the local economy. With this purpose, a partnership with the local government can be done.

##### Holcim

There is a lack of public and reliable information available about the actions taken by Holcim in order to help peripheral businesses to survive after the closure. The main issue has been the agreement between Holcim Spain, the local government (Junta de Andalucía) and trade unions (UGT and CCOO) with the commitment of the company to give its assets to Torredonjimeno and cooperate in order to look for new industrial alternatives and reinforce the productive system in the region.<sup>97</sup>

#### Peripheral Business Summary



#### Assessment

The analysis of Holcim's actions in relation to peripheral businesses cannot be properly made due to the lack of available information. Still, some efforts from the company have been made, mainly the already mentioned agreement with Junta de Andalucía and trade unions. Whether this agreement will finally benefit peripheral businesses is still unknown.

Due to this lack of information, it is difficult to do an accurate analysis of the model for this step. Probably one of the weaknesses of this step of the model relies on the fact that it can be difficult for the company to assess which are the businesses really affected by the company, considering timeframe limitations imposed due to the crisis. In any case, this part of the model is really important and must be taken into account in any closure.

### e. Environmental Rehabilitation

Rehabilitation of the site is one of the most important aspects to be taken into consideration in any closure. For Holcim, this was one of the key issues, together with the treatment of employees.

#### SCM

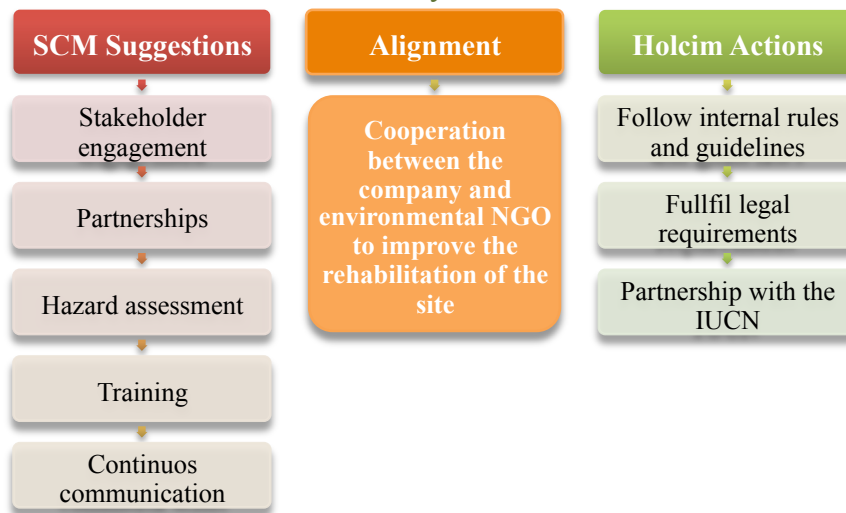
The main suggestions from the model are engagement of stakeholders, creation of partnerships, hazard assessment, training for people working on the site and continuous communication.

#### Holcim

The company has followed three action lines: internal guidelines, legal requirements and collaboration. First of all, Holcim has internal guidelines for rehabilitation and restoration. Secondly, in order to have the approval of the closure given by the mining authority, Holcim has to present a rehabilitation plan. Finally, the partnership with the International Union for the Conservation of Nature (IUCN) helps the company to improve the elaboration and execution of this plan. The conditions and benefits of this agreement are explained in detail in sections 5.3.<sup>98</sup>

In terms of the future use of the land, the quarry (with a size of 110 hectare) will be given to the municipality and it will be divided in two areas. One of them will be used for recreation purposes (eg. sport, picnic) and the other for industrial exploitation. In this second area, Holcim has proposed to have a dumping site for non-hazardous demolition waste. This will create employment, provide an environmental service and produce value. The rehabilitation project will be completed in approximately 2 years.

#### Environmental Rehabilitation Summary



#### Assessment

Rehabilitation has been key for Holcim, and therefore every aspect of it has been carefully considered. The company has experience in rehabilitation because this is a process stipulated by law. But Holcim goes beyond the law, using global guidelines that include sustainable development issues. The partnership with the IUCN (section 5.3) is helping the company to improve in the technical aspects of rehabilitation. However, as stated by Pedro Regato, Senior Programme Manager in the IUCN, the company could have signed a broader agreement, with the aim of cooperating with the IUCN more in depth. This would have given the NGO the opportunity to go further in the collaboration, not limiting them to give general suggestions and recommendations. It highlights the importance of long term partnerships.

This step of the model is vital. The difficulty can arise when selecting the appropriate partners for an agreement, since the company will have to consider the expertise of the NGOs or organizations working in this area. Sharing knowledge with competitors could help in this case to find out which are the best partners for the specific company and situation.

## f. Infrastructure Dismantling

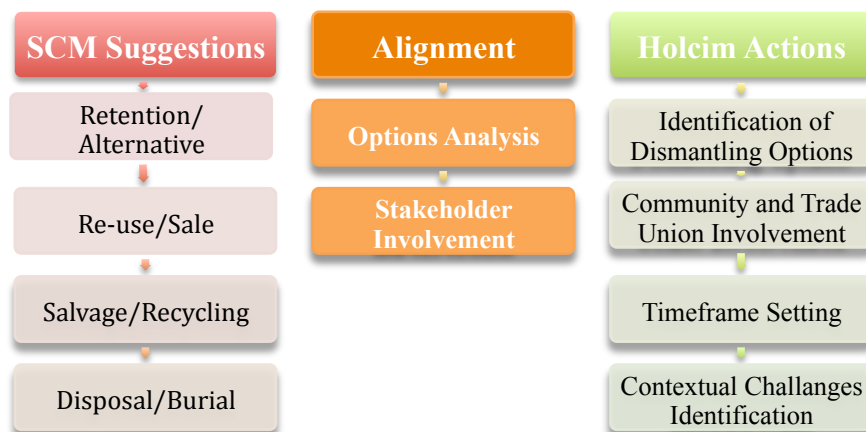
### SCM

The SCM proposes the analysis of four possible dismantling strategies: Retention/Alternative Use, Re-use/Sale, Salvage/Recycling or Disposal/Burial. A company should evaluate each option to the various infrastructure components and integrate them accordingly into the overall dismantling strategy.

### Holcim

Holcim has set a 2 year period for the completion of its dismantling strategy. The option of using the plant to manufacture a new product (white cement) cannot be considered due to the unfavorable market situation. Neither does it prove economically advantageous for another cement company to purchase the plant because of the existing capacity surplus in the market<sup>99</sup>. Holcim acknowledged the existence of certain valuable installations such as electric devices, weighting devices and buildings. Stakeholder engagement processes are thus being set up with the regional government and trade unions in order to identify further use for these assets. Thereby the relocation of certain infrastructure components to Seville is being considered in order to promote the reindustrialization of the area. However, Manuel Soriano acknowledges that if no solutions can be found, the infrastructure will have to be demolished<sup>100</sup>.

### Infrastructure Dismantling Summary



### Assessment

While Holcim's strategy appears in line with the SCM approach of identifying the various dismantling options, the media questions the company's commitment to demolishing alternatives<sup>101</sup>. As, during the time of writing, the demolishing strategy has only just started, potential reuse or recycle options can still be integrated in the future.

Holcim's dismantling actions identify the need for the integration of appropriate stakeholder engagement in the decision process of the infrastructure's future use. A contextual analysis should further be included into SCM in order to aid the company to identify the tangible options available as well as the opportunities and challenges related to them.

The 2 year timeframe set by Holcim for the Torredonjimeno dismantling strategy, underlines the time requirement companies should take into consideration. This should be pointed out in the model.

#### 6.1.4 Cross-Cutting Actions

##### Partnerships

The partnerships section of SCM was analyzed through interviews with both Manuel Soriano, the SD director of Holcim and with Pedro Regato the IUCN Senior Programme Manager- Ecosystem Management and Development.

##### SCM

The model outlines the importance of partnerships as a cross-cutting action when creating action and communication plans for different stakeholder groups. The ability to rely on a cross sector alliance during a crisis is highlighted. The main benefits that are outlined in *Partnerships Section 4* of the model consist of all 5 areas of the AWARE benefits section. Thus, making it a cross-cutting action with a high degree of importance within the SCM. The main social benefits are examined as consisting of avoiding conflicts with local communities and managing talent retention. The key economic benefits are outlined as lessening the chance of fines or having to contract expensive outside consultants for rehabilitation. Moreover, the positive impact on reputation is described along with the ability to maintain license to operate.

##### Holcim

Holcim entered into a partnership with the IUCN in April 2009 to facilitate the restoration of their Torredonjimeno quarry. The objective of this cooperation agreement between the Centre for Mediterranean Cooperation of the International Union for the Conservation of Nature (IUCN-Med) and Holcim Spain is to develop a series of short-term joint activities and to establish a future collaboration framework in order to begin new conservation and restoration projects of the natural surroundings affected by the industrial activities of the company.

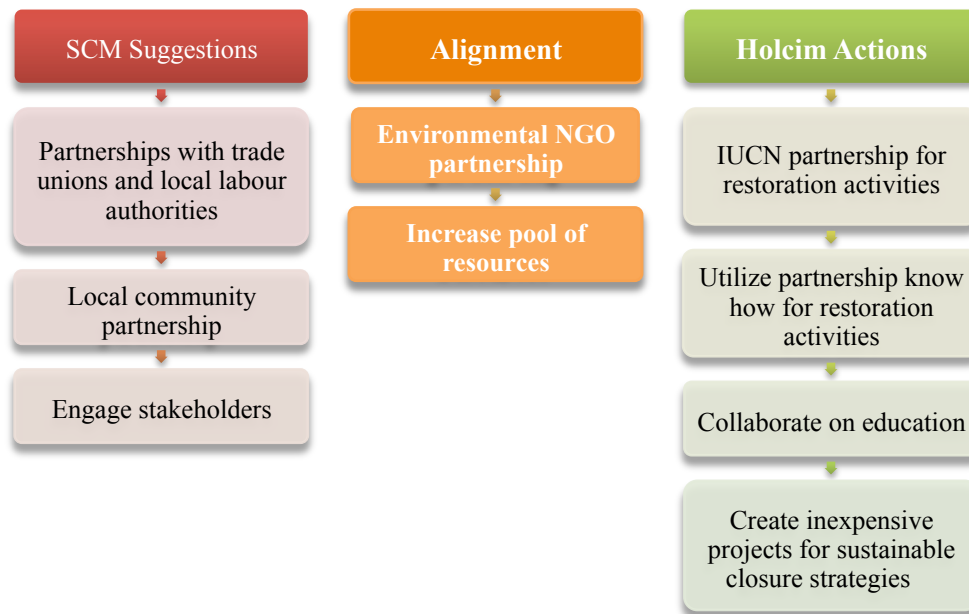
The primary aim of the agreement, which has been given a budget of 18,000 euro and is of 6 months duration, is to advise Holcim as to how to adequately integrate ecological and social aspects when setting into action a Comprehensive Restoration Plan for the quarry of the cement factory in Torredonjimeno, located near Jaén, Spain. <sup>102</sup>

The benefits for this partnership were outlined as a win-win situation by Manuel Soriano of Holcim and consisted of the following: ( See Appendix B p.77 )

- Holcim receives an international partner composed of experts from IUCN in order to show them how the restoration operations should be done in Spain
- IUCN can learn about on site processes, while Holcim benefits from suggestions that they can incorporate in their strategy.
- Collaboration, especially in the plant closure process.
- Inexpensive
- Holcim offers the sites to the IUCN and asks for collaboration (e.g. teaching biodiversity in Seville)

Overall, the benefits outlined by Holcim cover a range of social, economic, and environmental pluses. Although the partnership has only been in action for a few months Holcim is already able to pinpoint what benefits will come out of their collaboration with the IUCN.

## Cross-Cutting Actions- Partnerships Summary



### Assessment

Partnerships can be assessed as an overall successful SCM recommendation when analyzed in the context of Holcim’s partnership with the IUCN. Several important SCM suggestions have proven beneficial for Holcim. Partnering with an environmental organization has led to an increased pool of resources that consists of knowledge on biodiversity promotion and quarry restoration. These resources available from the IUCN will aid Holcim in maintaining the good reputation they hold within the cement industry and provide authorization to operate in future communities, both benefits outlined by the SCM. The IUCN gains access to Holcim’s quarry sites to conduct studies which will increase the IUCN’s knowledge concerning biodiversity and rehabilitation and will enable them to promote their objective of sustainable development and environmental protection.

The importance of cross sector partnerships can be outlined further by Pedro Regato of the IUCN in the following statement:

*“At the end of the day, the economic activities and the industries have an important impact on the environment and I think we need to accept this. We live in a society with the will to have certain commodities, goods and benefits so we cannot just criticize the business sector. It is important to work together with the business sector and try to make sure that there are good policies on environmental and social issues whenever the business sector is operating and making use of natural resources, which is the case of Holcim.” ( See Appendix C p.83 )*

Although the partnership that has been created between Holcim and the IUCN has brought about many mutual benefits that have fallen in line with what the SCM they have to be analyzed with a critical eye as a partnership can often face challenges that may not appear clearly at the surface. The SCM did not outline the importance of the level of commitment between partners and the timeline that this applies to. The SCM could be strengthened if this was added. Holcim and the



IUCN expressed differing views when asked about challenges faced while working together. Pedro Regato, the IUCN director for Holcim partnership stated,

*“The IUCN was expecting a larger scope of collaboration. A larger collaboration framework is a good indicator of the commitment the company has on social and environmental issues in the long term. Recommendations on the quarry restoration are useful but insufficient as this can be done by a consultancy.” ( See Appendix C, p.85 )*

When expectations of partnership commitment differ the partnership can come under stress. The SCM model could be improved by suggesting companies clearly agree on levels of commitments and the timeline of the partnership before entering it or adapt activities.

Communication is a key success factor for successful partnerships as often partners can face challenges when they are coming from different sectors. Pedro Regato outlined this challenge,

*“The private sector is looking at the business and the benefits and some of them are more sensitive than others on environmental issues. It’s not easy to have a common understanding. Sometimes we talk different languages. Sometimes even if you demonstrate the benefits of collaboration the ‘different languages’ compose a barrier.” ( See Appendix C p.85 )*

This emphasizes the fact that for the Sustainable Closure Model to recommend partnerships as a cross-cutting communication tool between stakeholders, communication must be stressed as an essential part. Manuel Soriano further described the importance of communication between Holcim and the IUCN regarding stakeholder dialogue during the closure process,

*“Holcim invited IUCN for a meeting in Jamilena, with stakeholders where IUCN could participate. They were present in discussion with stakeholders.” (See Appendix B p.82 )*

As outlined through these key comments, partnerships can be a powerful tool in the promotion of a sustainable closure process. Areas to take into account are maintaining communication and understanding commitment levels for each partner and consequently adapting activities. The SCM model has outlined the relationships between key actions and benefits but could be strengthened by examining solutions to possible partnership challenges.

## **Monitoring**

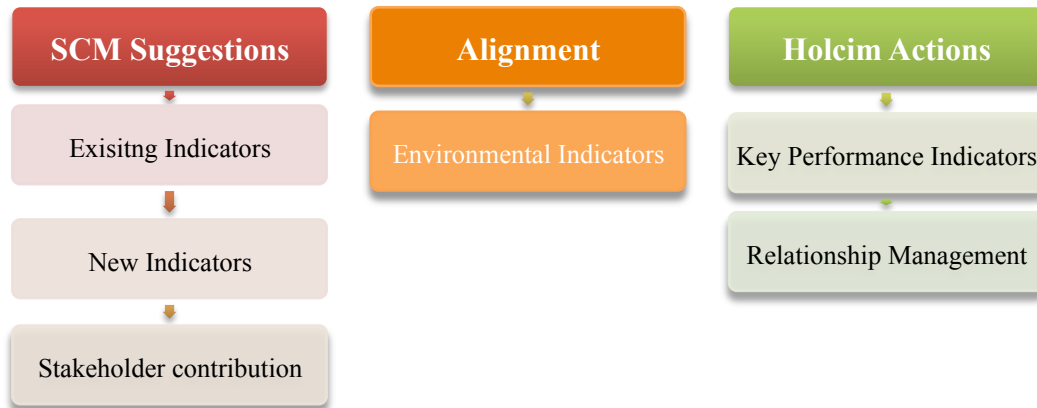
### **SCM**

The SCM proposes both the continuation of existing monitoring indicators (during operation phase) as well as the implementation of additional indicators in order to measure the social, environmental and economic impact of the closure on the stakeholders. For achieving optimal results, relevant stakeholders should be involved in the development of the appropriate indicators.

### **Holcim**

Holcim has in place a broad set of indicators, which measure the company’s economic, social and environmental commitment, of which the relevant indicators will be continuously measured in the post-closure period. These are mostly linked to the environmental recuperation. With regard to the company’s impact on society, continuous relationship management is advocated for by Holcim.

## Crosscutting Monitoring Summary



### Assessment

With regard to Holcim's set of KPIs, it is recommendable for the SCM to elaborate on the type of indicators that should be continued in the post closure phase. Furthermore the SCM should take into consideration the qualitative post-closure assessment such as the continuous relationship management as proposed by Holcim. On the other hand Holcim's quantitative measurement process could be expanded.

### 6.1.5 Final Communication

Final reporting has the objective of communicating to different stakeholders how the closure process has developed and which have been the goals achieved (section 4.4.6). There are two main obstacles for the proper analysis of this step of the model using Holcim's case study. First of all, since this step is taken at the end of the process, it is not possible to analyze the case of Torredonjimeno, which is still in progress. Besides, the company will not communicate publically on the results.

### SCM

The main recommendations from the model for final communication are the elaboration of an internal report with a record of activities, a proactive approach (eg. press releases), openness to feedback from stakeholders and best practice sharing.

### Holcim

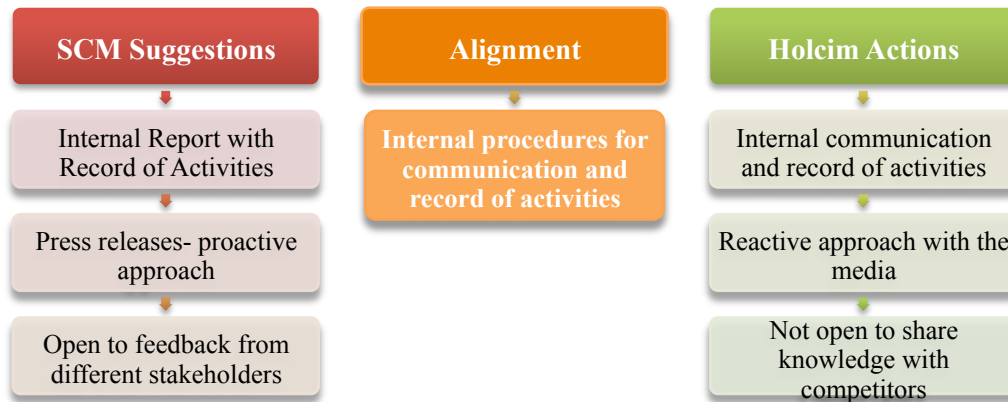
The company is recording the activities undertaken during the closure following internal rules and procedures (e.g. meeting resumes, memorandums, etc.). They believe the recording of the process is very interesting for them to learn how to improve and be used in similar situations, but Holcim has no intention of sharing the information about the plant closure with other companies.

*"[...] our intention is not to teach other companies how to proceed. This is our way. This is our knowledge. This is our knowhow. This is our culture. We are different from the others. We are not interested in promoting this way to other companies. This is the Holcim way." (See Appendix B p. 81).*

In terms of a reporting plan to communicate and share the actions and achievements during the closure process, the company generally uses meetings with employees and trade unions, communication through telephone with the media and press releases in order to inform the general public. According to Manuel Soriano, this must be a very alive process and must generate trust.

The approach with the media is mainly reactive. They are considered a channel for information, but not as stakeholder themselves.

### Final Communication Summary



### Assessment

The main objection to the company’s behavior is their opposition to sharing information with competitors. Another difference between the model’s suggestions and Holcim’s strategy is the approach with the media. A more proactive approach would allow the company to give certain information to stakeholders, with the resulting positive impact on image, reputation and trust.

The main difficulty of the model in this stage is the reticence from the private sector to share information with competitors. Companies need to understand that knowledge sharing will help to improve sustainability practices in the sector and does not necessarily mean one company imposes its point of view and ways of operating, or it loses valuable information and know-how. Instead, it must be seen as an opportunity for improvement for the companies and the CSR field in general, and for enhancing transparency.

## 7. Conclusion

The aim of this research paper was to develop a model that could aid companies in developing guidelines for sustainable closure during a restricted timeframe due to the financial crisis. The model was created after in depth industry and economic climate research. The purpose of this initial research was to draw together the main challenges being faced by companies during economic turmoil and integrate recommendations into a sustainable closure model that could address these challenges and mitigate the surrounding risks.

The model was then optimized by identifying its main benefits, organized by the *AWARE* acronym and linked to specific actions and communication towards key stakeholder groups. The usefulness of the model was then tested by analyzing its recommendations through a real life case study comparison with the closure of Holcim's Torredonjimeno plant in southern Spain. Central actors in the closure process were interviewed to obtain the body of research used in the assessment and review of the model.

In order to expose the dominant conclusions obtained from this study, a series of questions will be addressed in the following paragraphs. They are structured to emphasize the main conclusions obtained by the assessment of the model's recommendations and furthermore outline industry insights and findings obtained by examining the sustainable closure situation as a whole.

### Question 1: Can the model contribute to a sustainable closure approach?

Considering this model has never been used by a company undergoing a closure process the contributions to sustainable closure have been identified through an overall comparison between the model's suggestions and Holcim's closure actions. It is understood that Holcim's closure process is currently ongoing and not flawless. Nevertheless, there are fundamental aspects of the closure process that were achieved with a high level of sustainability and responsibility towards stakeholders. Therefore, concluding that where the model's recommendations and Holcim's sustainable actions closely align provides the verification that the model has supplied effective proposals towards sustainable closure. Moreover, where the model has provided recommendations above and beyond what Holcim has achieved and what the law requires, albeit ideal, should be considered important steps towards building a sustainable closure approach.

The key insights that can be drawn from analyzing the Sustainable Closure Model (SCM) through the lens of a company undergoing a closure process have been much more complex than originally expected. The model's key issues that best support sustainable closure are stakeholder engagement, communication, and solid partnerships. These recommendations were confirmed as justifiable through Holcim's robust actions in these areas.

Stakeholder engagement took on a central role in Holcim's CSR actions. This method of involving stakeholders throughout all aspects of the process and communicating with them before, during, and after was for Holcim, a vital part of their successful and legal closing of the plant in Torredonjimeno. Stakeholder engagement was also highlighted as being a key recommendation of the SCM and the importance of delivering a clear, respectful message before stakeholders received it from an outside source was pinpointed as a means for success of the model. The aspect of trust was also brought to the forefront by studying Holcim's closure activities. During a closure process a company's reputation is on the line and communication is a way to ensure to stakeholders that the company is always there, handling the situation and that all

the reasons for the company's actions are known. In this way trust in a company can be preserved as much as possible with local communities and employees during a closure.

Partnerships also made up a core part of the SCM. By analyzing the opinions of the directors of the closure process within Holcim and with their partner the IUCN, the key recommendations made by the model were confirmed, strengthened and improved. Some final knowledge on partnerships through a crisis was gained. Partnerships should be built and developed during a non-crisis situation but even if they are a crisis can change the partnership dynamic and strain the level of commitment of either party within the partnership. The model points towards an important understanding of the challenge to ensure effective communication between partners so they both understand the advantages of the partnerships.

### Question 2: What are the key recommendations for SCM improvement gathered from the real life scenario analysis?

Whereas Question 1 aimed to show the strengths of the SCM, Question 2 addresses where the model could be improved. Sources of improvement recommendations are twofold. They were made evident first, by successful actions that Holcim took which the model failed to recommend and secondly, by identifying the consequences of Holcim ignoring important aspects of sustainable closure.

It was found that communication must be increased within heavy industries to create knowledge sharing and build best practice on sustainable closure procedures. This was an important observation during the research behind the SCM development. It was noted that many of Holcim's processes surrounding sustainable closure were hidden behind a veil and labeled internal property.

The issue of the media and how to recommend actions surrounding it was a topic of concern regarding final recommendations for industries facing closures. The media is inescapable and has been increasingly critical of multinationals' actions during the crisis. The differences between what a company thinks it has done sustainably and how the media portrays the situation can be two very different things. Through a thorough analysis of television and radio reports, the message that the media was spreading regarding the closing of the plant in Torredonjimeno was discovered to be much more negative than the message that Holcim believed was being communicated throughout the closure process. The SCM could have promoted the concept of proactive interaction with the media to a higher degree. The importance of providing clear and direct messages before a company's actions can be twisted or skewed is justified by the negative publicity Holcim suffered through their reactive approach.

### Question 3: What are the predominant external challenges for the future viability of the model?

Due to the high adaptability of the SCM and the feasibility for companies to use certain sections as stand-alone processes, the model does not lose its viability despite existing external challenges. However, the key external challenges including time, liquidity, human resource shortages, and country specific obstacles, have to be taken into consideration as they could affect the usefulness and success of the SCM for the extraction industry.

An important factor that could compromise the model's success comprises the lack of preparation time. If a company had to close down shortly after the integration of the SCM began and the framework was not established, the execution of the SCM recommendations would be

aggravated. Additionally the liquidity constraint a company faces during an economic crisis will further hinder the completion of all the tasks proposed in the SCM and the company might have to prioritize the feasible post-closure initiatives. In addition to appropriate financial resources a company also depends on a trained and pro-active task force to lead the sustainable closure project. The risk that the appropriate staff might have been laid off beforehand has to be considered.

Furthermore, the contextual setting also impacts the SCM's influence on sustainable closure practices. Whereas the model has been tested in a developed nation with sound environmental and social laws, the context of a developing country might require some adjustments of the model in order to achieve optimal results. For example, considering the extra burden during a closure faced by surrounding communities because of high poverty levels.

#### Question 4: What are the keys to success for the model?

The level of successful sustainable closure that can be achieved by following the recommendations within the SCM increases with the amount of investment into *Setting the Framework* for closure. Although this model is meant to aid companies in times of abrupt change where a clear plan may not be in place, the background efforts that a company has in place will pay back tenfold if the right amount of thought and planning has gone into this stage. In Holcim's case the success of the closure in terms of restoration and relocation of employees was so high because of the level of effort that had gone into defining these areas as key CSR issues.

When tackling communicating the benefits of the SCM to business leaders, as part of the "gain AWAREness" section, it was discovered that individual corporate benefits are very hard to define and the level of difficulty in communicating the benefits over a short term time scale added to this difficulty. Businesses are operating in a very challenging economic environment, therefore their ability to commit the resources into deciding which benefits are key for their individual circumstances might be limited by money and time. The key benefits can only be triggered by following the SCM process to the full extent which could put increased financial strain on companies.

Benefits therefore may have to be prioritized and companies may have to understand that not all benefits outlined in the SCM can realistically be achieved in every situation. The theories presented in the model and what is realistically achievable never coincide 100 percent. This is not considered a failure of the model, as its purpose is to communicate all the possible benefits, but therefore only an important consideration for every individual company. Hence, to successfully obtain the identified benefits for the company, it is important to understand that the actions and communication taken to achieve these benefits can be adjusted.

An additional key to success is maintaining transparency within partnerships, which can be a problem within the private sector. If transparency is low, trust will be low and reaching the partnership objectives will be more difficult. Holcim and the IUCN both stated that transparency had not been an issue during their partnership, which had led to a positive and productive agreement. It is also important to conclude that transparency must not only be existent between partners but between all stakeholders. As Manuel Soriano exemplified by describing Holcim's resistance to share best closure practices within the industry, mainstreaming these practices will be hard to achieve. For sustainable closure to gain a foothold during the recession, industry benchmarks must be developed. For this to be completed transparency levels for best practices must be high.

A further success factor which this study has brought to attention is the importance of management skills and leadership during a downturn. This is a unique crisis situation that many managers up until this point have not had the experience dealing with. The SCM model is only as good as the leaders that implement it. Its success depends on their insight. The ability of managers to set up effective closure task forces is also key to the success of the model. This was carried out by Holcim in the creation of a Crisis Task Force, with carefully chosen roles. They need to know what the issues are and start approaching them in a proactive way.

### Question 5: How does the SCM compliment existing CSR strategies?

One of the biggest challenges faced during the initial research in the development of this model was the overall lack of information in the sustainability field for sustainable closure in a crisis context. This led to a suspicion that the level of industry knowledge sharing was low and the need for it may have to be heightened to emerge from the crisis with industries that maintained their positions of respect, integrity, and therefore their license to operate. The heavy industry sector has for the most part, integrated strong CSR planning into their plant life cycle processes. Consequently, the availability of existing closure strategies focuses on end of life planning throughout a lengthy timeframe.

The Sustainable Closure Model has been developed in the attempt to fill an identified vacancy for an emergency situation CSR model. Overall, the biggest value of the SCM will arise if integrated over the long term processes of a company, from the onset of the project and setting aside resources to do this. That stated, what the model has aimed to fulfill is a solution for an immediate and unplanned abrupt closure, outside from life cycle planning. Sustainability is achieved by striving for above and beyond what is expected. For the SCM this means going beyond the processes required by law while working in the dynamic context of a crisis.

The crisis has caused many companies, in heavy industry sectors especially; to turn inwards and safeguard approaches they feel give them a competitive advantage. They often, as in Holcim's case, reduce outside access to internal knowledge and categorize these processes as risk management. Considering the bigger picture, that heavy industries are losing investor confidence and becoming the villains of the green movement, the SCM aims to encourage companies to open up their knowledge banks, network within industries and sectors, and cooperate to improve the overall environmental and social standings that will mark their success in the coming years. The advantage exists for companies to adopt policies that will create industry benchmarks, if the challenge is taken up now and the commitment is proven during a tough economic climate, the benefits will come rolling in as the economic situation rebounds.

### Final Reflections

As the Chinese symbol for 'crisis' illustrates, a crisis is composed of two dominating factors: dangers and opportunities. Although the dangers often dominate the scene, companies can nevertheless identify potential opportunities to survive or even prosper in such an environment. In order to grasp these opportunities, managers have to understand the need to adopt new and innovative approaches. Consequently the SCM, a thoroughly researched new alternative, gains importance and usefulness for the private sector during this turbulent time.

Furthermore, history shows that a crisis is a reoccurring phenomenon as the financial crisis in the 30s, the Asian financial crisis in the 90s and the current sub-prime crisis (2008-) illustrates. As

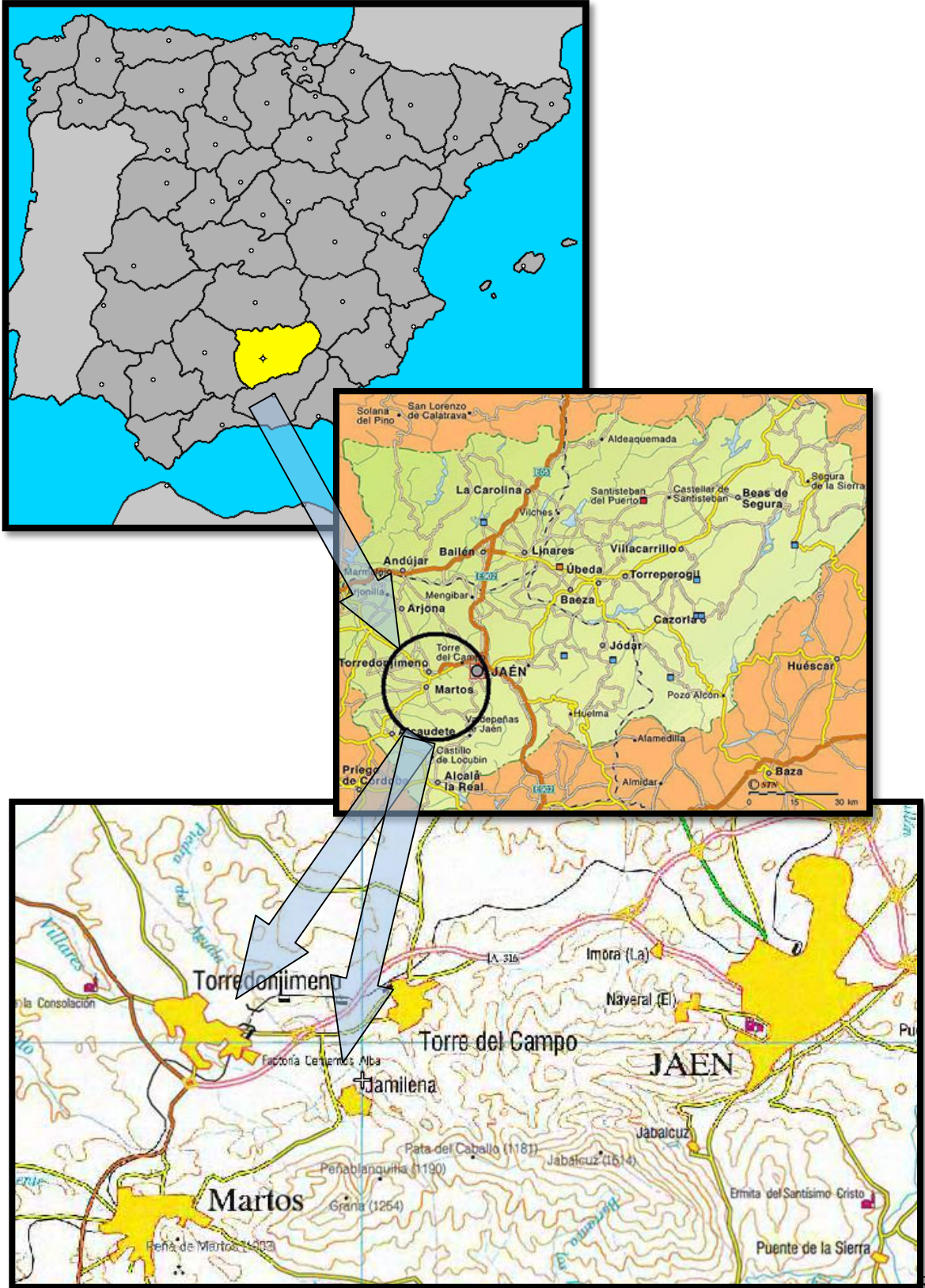


companies are therefore likely to repeatedly face economic disorders in the future, the SCM continues to benefit companies in mitigating potentially upcoming closure risks.

This model will be especially important for companies operating in sensitive areas, in developing countries, in high biodiversity zones, or within rural communities with high economic dependence and migrant labour concerns. This model strives to take into account that companies are livelihood providers and must be held responsible for preventing ghost towns or sending communities adrift. They have to understand how far their roots reach and if they must chop down the tree, to leave seeds behind for future growth. Finally, it aims to remind that during trying times, responsibilities should not be shifted but shouldered, and that this will be the true test of corporate commitment to sustainability.

# Appendices

## Appendix A: Map of Torredonjimeno and Jamilena



## Appendix B: Interview with Manuel Soriano

June 17<sup>th</sup> “2009  
Holcim Offices  
Torre Europa  
Madrid, Spain

Interviewers:  
*Marion Oliver*  
*Rocío de la Cruz*  
*Stephanie von Meiss*

Interviewee:  
*Manuel Soriano*  
*Director of Sustainable Development*  
*Holcim Spain*

### General Questions on the Crisis

#### 1. How has Holcim’s strategy changed due to the crisis?

1. Reducing our budget, making an effort to adapt to the very hard situation we are living
2. Prioritizing the matters we are dealing with

So, in this moment everything that is not necessary will be cancelled, but we are going to keep what is important for us. We are not going to discontinue what we consider essential. Education is essential, so the professorship in the high school in Seville will continue, the education with the young people. A few lines which are considered the priority for CSR. We are going to concentrate on them.

#### 2. What opportunities do you see for a company like Holcim arising out of the crisis?

Opportunity to focus activities in what we consider essential, now there is an obligation to evaluate each project. Evaluate each project according to an internal rule and then the decision is made to cancel or go on with the project. Now we are “*Spending Less but Spending Best*” Genevieve... The crisis is a great opportunity for creativity, because when you don’t have the money you have to be creative.

#### 3. For the industry as a whole, what benefits do you see for maintaining CSR practices?

It’s a matter of consistency, the message you are passing is important. This is not only fashion; this is another way of doing business. We can gain trust and show consistency.

#### 4. How do you see yourself compared to your competitors in terms of your CSR strategy, Does Holcim have a strong CSR strategy compared to competitors?

Modestly- I believe Holcim is doing what we consider essential, and not what could be considered as nice. This is the main difference. Holcim has defined its priorities – in education, in relation with the stakeholders, in social infrastructure. Consistent with this principle

Other companies probably have not such a consistent approach. Some companies are doing things that look very nice, we are not interested in this kind of approach.

Genevieve- In Spain Holcim seems to have a more constant line of action than competitors. Holcim is named Industry Leader for its actions globally.

## 5. Do you see the importance of partnerships increasing as a result of the crisis?

I totally agree, Holcim needs to have friends, but mainly when the situation is hard. In this hard situation we are living in, alliances are a good idea and it's really necessary

It's always important, but in a crisis situation it's more important. When you are living a very nice situation everyone wants to be with you, but when the situation is hard only consistent alliances and people you can trust is the kind of help you need.

The situation is clear, you cannot create an alliance in one day, in the crisis situation you are taking benefit of the work you have done. It is not that you are going to create an alliance because the situation is hard- you have to take benefit of your previous work.

## Plant Closure Questions

### 1. Has Holcim developed a standardized closure strategy worldwide?

Closing a plant is extraordinary, not something that we are doing every day. Of course we have a crisis manual and some tools we have implemented to help manage the crisis. Of course we have designed how to proceed before closing a plant. – plant program information

The closing of the plant has been produced by market reasons. We are not adapting the company to the new market situation. The life of a plant is very long and we are not facing this situation normally, to close a quarry is more common.

This is internal knowledge, internal behavior, we can speak in general but not in detail.

### 2. What actions are Holcim legally obliged to take during the closing process?

When a plant is closed we have to fulfill mainly legal requirements. Legal requirements in the labor field involve the authorities giving you the permit. You cannot say, I am going to close this plant tomorrow, finished, no the authorities. The labour authorities have to give you permission to go on, to close the plant. It is necessary to fulfill the regulation to do this. *Expediente de Regulación de Empleo*

Without the employee regulation and the legal authority it is impossible. You can propose to close a plant and the authorities can say yes or no. Normally the best way of doing this is negotiating with the workers. If you negotiate the terms of the contract cancellation and general closing of the plant, the authorities normally say yes, otherwise it is very difficult to get permission.

A plant is a working site, so you have to close this working site, you have to fulfill administrative. The closing of a plant is more or less legal, the way in which you proceed is more a matter of the CSR approach of the company.

### 3. What are the benefits for Holcim in closing the plant in a sustainable way?

Mainly respect and image. You are doing things properly so you gain trust so respect, and your image is better.

#### 4. What are the key CSR issues you consider when closing a plant?

The key issues we consider are employment and then the restoration of the sites but mainly the employment, because employment is a social aspect but it is also an economic aspect for the municipalities. So, employment has been the key. And the key to the good result of the closing is due to the high relocation.

The plant had 73 workers, more than 30 have been transferred so this is a very good result. This has been excellent. The workers are happy and also the site managers that have received the new workers are also happy. This is probably the best result of the closing. Some other workers have retired and others are working in demolition and restoration and only a few are still pending new employment.

#### 5. How did Holcim prioritize its stakeholders?

After employment, what we have considered as very important is the communication to them. We have been very very open in what we plan to do, the process eg. Meetings with labour authorities. Workers have been number one, but also labour authority, municipality, customer, subcontractors,

Media? – Media is the channel of information, of course we have always been ready for the media, but the media is not the object of our communication. Of course we have been in contact, but not for informing them, we have provided proper and clear information, but as for the final stakeholder we are not interested in this channel as communication.

#### 6. What was your exact role during the project and what other CSR related roles were there?

More or less public relation, contact with the authorities, acting as the company speaker, and also dealing with communication.

#### Other groups?

We created a crisis committee. Also high direction of the company and plant managers.

#### 7. What actions have you carried out with stakeholders or are planning to carry out?

2 things: information and negotiation. Information to the workers, authority, municipality, trade union

#### 8. How has the relationship with Trade Unions developed? What has your interaction been like?

The relationship has been good, you know that negotiation with the workers is essential. The trade union involvement was compulsory from the very beginning.

Genevieve- Are the trade unions more cooperative when they know it's a context of crisis?

They have been quite reasonable. We inform them about the situation, we put the situation on the table. At the beginning, of course a trade union is always against closing because they consider that the employment is going to suffer. To convince them about the necessity of closing the plant has been very easy. The more complicated process has been the term of the cancellation, so they concentrate on obtaining the best conditions for the workers but not on keeping the plant open.



## 9. How do you communicate the news of a plant closure to your stakeholders?

We communicate immediately before closing, when you decide to close the plant you cannot open the discussion a month in advance. This is a very strategic point and you must be very clever, but we inform some stakeholders immediately in advance. We say **“Gentlemen we are going to close the plant”** So we inform first, during, and after.

How do we complete this, with meetings, the crisis committee has a meeting from time to time to follow up and be aware of the process. With the authorities we have meetings or telephone calls. With the workers, we have meetings, discussion and negotiation meetings. The municipalities with meetings, with the media, we have to be always ready. So any telephone call we receive, we answer

## 10. When the Media contacts Holcim are they reactive or proactive?

I do not consider the media a stakeholder, it is a channel to inform. In some ways a Press Release could be considered a proactive approach but we do not seek out the media, we answer them when they call us. From time to time we have prepared press releases to expand information to everyone. If you prepare a press release you can decide who is going to receive the information. With the telephone call, all you can do is answering the questions that you receive. Overall, mainly reactive.

## 11. Can you expand upon your partnership with the IUCN for restoration actions?

Must state that we have internal rules for restoration, the Holcim group has restoration guidelines and this is internal.

Secondly we have legal obligations, if we must close a quarry we must present a restoration plan. The mining authority must say ok, or present some recommendation. At the end the plan must be approved by the mining authority.

Finally, we have a collaboration with an organization like the IUCN you can get additional information.

But mainly within these three different fields, internal, legal and collaboration.

## 12. What is Holcim’s plan for infrastructure dismantling?

We have two different sites, one is the quarry and one is the plant.

The quarry is under specific legal mining requirements, and is now in the process of restoration, so we are working on it. Last week we presented the last restoration project. This includes the recommendation from the IUCN.

We have proposed two things

1. To create a social area, a recreation space for the municipality. There is a part of the site that will be conditioned and given to the municipality. So people can use this area for sport or picnics
2. Industrial application- We have proposed a field for demolition waste for non-hazardous waste. We have conditioned and prepared the area to have this site for demolition. This is going to create employment, provide an environmental service and its going to produce value.

We will give all the land to the municipality and they will decide how it is managed. Of course we have to undertake restoration before.

The plant is more complicated. We have valuable installations there, electric device, weighting devices, buildings. What we are now trying to do is use these resources before making the decision to demolish. We are discussing with the local authority in Seville how to relocate and promote the reindustrialization of the area. If we don’t succeed in this process then we will have

to demolish something. The best decision could be to promote reindustrialization of the area. We have an agreement with the trade union and regional government to go on in this direction.

**13. How do you record the activities you've undertaken during the closure? Do you see sharing this information as an opportunity to improve the optimization of closure processes within the industry?**

They have internal documentation, e.g. meetings resumes, memorandums. It is alive information. However, we have no intention to share the tasks undertaken. We don't plan to give the history of the plant closure. We believe that the closure process is very interesting for us as Holcim can learn how to improve this process. However, it is more or less day to day information. *"our intention is not to teach other companies how to proceed. This is our way. This is our knowledge. This is our knowhow. This is our culture. We are different from the others. We are not interested in promoting this way to other companies. This is the Holcim way."* The process followed could be used for the Group. It could be used for similar situations not necessarily a closure. The company intends to implement an adaptation program.

**14. Do you have a final reporting Plan to communicate and share your actions and achievements during the closure process?**

Normally we used meetings, telephone communications and prepared press releases. In order to inform the municipality meetings have been set up to provide a real dialogue between the community and Holcim. This must be very an alive process and should help to create trust.

**15. What are the main reasons you feeling prove the planning is being closure sustainably?**

The stakeholder perception. The fact they have not suffered a lot of troubles proves this. The labor authority will speak positively about Holcim's actions and the Trade Union respects the actions undertaken by the Holcim.

## **IUCN Partnerships Questions**

**1. Why did you decide to make a partnership with the IUCN? And how do you benefit from such partnership?**

The group has a global partnership with IUCN. It has been suggested that they collaborate locally. IUCN is very important for the Mediterranean are. Holcim is aware that it has to contribute to the adaptation process. IUCN can introduce some help to the restoration process of the plant. We have currently a modest agreement with the IUCN.

### **Future?**

First the results of this agreement have to be evaluated. Depending on the results the collaboration will be expanded or discontinued. More than 70% of the CSR budget has to be evaluated according to internal rules. If results are good the actions can be continued.

Benefits: (win win process):

- IUCN teaches Biodiversity in Sevilla for Holcim
- Holcim is ready to receive an international partner composed of experts from IUCN in order to show them the operations done in Spain. Holcim in Spain has been the first company visited by this partnership. IUCN can learn about on site processes. Holcim benefits from suggestions that they can incorporate in their strategy.
- They are collaborating especially in the plant closure process.



- Not expensive
- They offer sites to IUCN and ask for collaboration (e.g. teaching) and for suggestion to improve restoration plants

2. What challenges did you face working with the IUCN? (eg. Reputation, different methodology, conflict of interests, etc) and how transparent were you with the IUCN? Did they have access to all relevant information for plant closing procedures?

We have faced no challenges - very positive collaboration. High transparency on Holcim's part.. A key issue is that both sides have to be genuine and motivated to make it work. The IUCN has been working with many companies and has a global relationship with Holcim. Holcim invited IUCN for a meeting in Jamilena with stakeholders where IUCN could participate. They were present in discussion with stakeholders.

3. What are the keys to success for a cross sector partnership?

Collaboration! By means of collaboration both parties can share knowledge and gain better image of both sides. → Mutual learning.

## Appendix C: Telephone Interview with Pedro Regato

June 4<sup>th</sup> “2009  
EOI – Escuela de Negocios  
Madrid, Spain

Interviewers:  
*Marion Oliver*  
*Rocío de la Cruz*  
*Stephanie von Meiss*

Interviewee:  
*Pedro Regato (in office in Malaga)*  
*Senior Programme Manager,*  
*Ecosystem Management & Development, IUCN*

### 1. What are the main benefits of partnerships with business?

There are many benefits and partnering with business is a very much needed exercise. IUCN has a Business Biodiversity Unit which is in charge of this kind of work. For me, the importance of partnerships with business is the fact that, even if we don't like it, the private sector plays a critical role in determining how biodiversity is used and conserved. I mean, at the end of the day, the economic activities and the industries have an important impact on the environment and I think we need to accept this. We live in a society with the willing to have certain commodities, goods and benefits and we cannot just criticize the business sector. So it is important to work together with the business sector and try to make sure that there are good policies on environmental and social issues whenever the business sector is operating and making use of natural resources, which is the case of Holcim. This is a must from my point of view. Then you may have different opinions. There are people who is more is favor of criticizing and preventing impacts from the business sector, which is good. I think in the environmental moment different organizations may play or should play different roles. But I think is also important to sit together and try to make a more sustainable use of natural resources by the business sector and to improve or create if they don't exist, environmental and social policies in the business sector.

I also think that the private sector may play a critical role in pushing other actors for sustainable development. I think markets play a critical role. At the end of the day, governments are always trying to bring markets to their countries. When the president of the government, or the king are traveling to China or to other countries they always go to entrepreneurs, and try to promote the business sector of the country, because this is the basis of the economy.

I think through the market we can put pressure on other actors which are preventing sustainable development. For example: The wine industry needs cork and a lot of cork (which is needed for the stoppers of the bottled) is coming from Northern African countries (Morocco, etc) where there is almost no sustainable forest management and no good conditions for livelihoods and people living in the forest areas. I think if there is a partnership between an environmental organization and the wine industry, the wine industry can put pressure. They can say “We will just use cork if it comes from a sustainable forest management, otherwise we just use other type of stopper, plastic or whatever, but in order to continue using this we only accept cork coming from sustainable forest management” And trough the industry you can put pressure on the

government of Morocco, Indonesia or Nigeria to make important steps for sustainable development.

## 2. What impact has the crisis had on these partnerships?

I think the main impact of the crisis is the fact that the business may be forced or may decide for different reasons not to fulfill their environmental commitments. So, at the end of the day, if the enterprises are in difficult economic situations they may decide to escape from their commitments to CO2 emissions reduction, or they may decide to reduce costs from the environmental components of their activities, or they may decide to put a lot of people in an unemployment situation.

For me the crisis may have this impact. It is a matter of how much a company is able to adapt and face the crisis and to initiate necessary changes without questioning their environmental and social commitments.

## 3. Is there a post-crisis future for partnerships?

a. I think so. I am one of those people who believe crisis are opportunities and I think crisis like climate change crisis or the economic crisis we are facing now are evidences of the real need for taking steps towards sustainable development. For me this is as simple as this. The climate change crisis is telling us that if climate is changing in the way it is happening and if the overuse and bad use of natural resources continues that way in a few years we will fail, I mean, we will not be able to develop any action towards reduction of risk, etc. So for me crisis are like the alarms that are telling you “ok, you cannot wait more, you need to enter in sustainable development”.

For me, post-crisis future for partnerships is perfectly feasible and I think is good that a partnership during a crisis can be a framework for IUCN supporting businesses to identify good solutions for sustainable development and sustainable use of natural resources.

## 4. What benefits does the IUCN see from working with Holcim?

Holcim is a leading business in the cement industry with a high impact, so by working with a leading enterprise you can have an important effect in achieving what you want to achieve in the environmental and social aspect. The possibility to improve environmental and social standards in Holcim would be a very good achievement.

The possibility to influence the whole cement sector through the commitment and good example of a given enterprise

Holcim could become a leader in development of very good environmental and social standards in this sector

## 5. What kind of working relationship do you have with Holcim? (Team working? Consultant?)

IUCN and Holcim have a global partnership, about biodiversity conservation management, reviewing and assisting Holcim’s approach to managing biodiversity eg. Quarry rehabilitation or the quality review of environmental and social impact assessment, the selection of sites within the Holcim group, the development of a comprehensive biodiversity strategy for the business and sustainable livelihood biodiversity conservation. This is all part of the Global Partnership agreement.

Partnership is recent, with Mediterranean office, work with Holcim started at the end of May. Partnership is a very small one; basically providing advice on environmental issues, dialogue and face to face visits.

Have hired a couple of independent experts in biodiversity, from 2 universities in Madrid, so they will be involved in the visits and developing a recommendation believe it is important to have an independent experts opinion

## 6. Main Tasks?

First collaborations with Holcim Spain were willing to support Holcim with good policies on biodiversity, social issues, and standards and supporting Holcim in some pilot activities and how to implement. Also, how Holcim could become a leader to help engage other enterprises in the sector

Expecting something with a larger scope, but for different reasons and maybe in relation to the crisis the person with whom the negotiation was done with Holcim asked to start with a very small collaboration framework, with a very small amount of funding for the collaboration, collaboration framework based on the amount of money that is there and the amount of time we can spend.

In this framework IUCN there are two main aspects:

Provide recommendations on good practices on quarry restoration for Holcim- This will happen in one quarry. Through a number of visits to know each other and to know the area and to get information on what Holcim is planning to do there. And through several visits in key moments of the restoration phase IUCN and the experts will go to Holcim and provide recommendations, in the end it will be guidance on how to apply good restoration practices.

Visited a gravel quarry near Madrid where Holcim is already operating and has created a wetland mainly for bird protection. IUCN visited the area and provided some suggestions on some issues mainly related to the hydrological cycle which IUCN which they think was not well considered. The recommendations will be part of a book Holcim is about to publish

To agree on a second collaboration framework with a larger scope. After experience of working together

IUCN did not participate in the closing procedures only received information from Holcim once the closing process had been completed. Plans were already developed for the collaboration framework

## 7. Can you comment on the general situation? What you feel would be the ideal process for a company facing the closing of a plant?

When a company is facing a closure, something that has a high impact, there are two aspects, environmental and social aspects

The environmental aspects are something that should have been taken into consideration before. There should be an environmental impact assessment before these plants start- related to national legislation. This is something that must be very well planned, thinks Holcim is aware of that

Not a social organization but work on the integration of social and environmental aspects, see the need in considering the impacts the quarry may have in the territory, if this is well considered through the life of the factory, this can minimize the impact. An enterprise like Holcim can offer many social and environmental services. The important thing is the factory is not considered something isolated but is part of the planning of the territory. The special planning must consider what the positive impacts the factory can have in the environmental and social aspects of the territory. A factory has a lot of expertise and knowledge, the use of water, they may offer services to farmers on how to transfer good technology.

With the environmental issues it's the same, ideally a factory should participate in the decisions taken about special planning, land use, and technology policies. If this is the case, through the life of the factory, there can be a very good impact.

## 8. What challenges did the IUCN face during plant closure with Holcim?

A week ago, they were informed about the plant closure. It was already completed.

## 9. What challenges did the IUCN face while working with Holcim?

It is not easy. The private sector is looking at the business and the benefits and some of them are more sensitive than others on environmental issues. It's not easy to have a common understanding. Sometimes we talk different languages. Sometimes even if you demonstrate the benefits of collaboration the 'different languages' compose a barrier. The IUCN was expecting a larger scope of collaboration. A larger collaboration framework is a good indicator of the commitment the company has on social and environmental issues in the long term. Recommendations on the quarry restoration are useful but insufficient as this can be done by a consultancy.

## 10. Ideal Cooperation?

Same approach as the Global partnership agreement between Holcim and IUCN. IUCN looks with Holcim at their sustainable approach in managing biodiversity and they jointly develop comprehensive environmental and social policies for the enterprise. The IUCN wants to have an impact. The IUCN would like to help Holcim with the strategy development for them to lead changes and improvements within the Cement sector. Through such a process it would be possible to ensure that this collaboration will have a longer impact. I understand that the economic crisis and other factors hinder such an extensive collaboration.

## 11. Transparency Issue: Was Holcim transparent towards IUCN? How can they improve their transparency?

No transparency concerns. In line with the scope of the collaboration.

## 12. Transparency Issues in the Private Sector – Generally?

Important risk. For instance, for a partnership the interest of the partnership can be limited to the usage of your image and logo and to sell themselves as environmentally friendly. This can be a risk.

Previous experience with Cement factory. In my previous work we should have supported a cement company in the process of plant closure. The people who were fired expected job offerings from my organization. There was a lack of transparency of the cement company's part and the company might have said that the NGO would help to provide them with jobs.

## 13. Keys to a successful cross-sector partnership:

Mutual understanding that there is a clear interest in the partnership of both parties Benefits have to be clearly identifiable. If either party can't see the clear benefits there will doubts regarding the partnership. In the processes, clear roles and participation activities have to be elaborated in order to avoid mistakes.

Markets are important drivers and NGOs should make use of them.

## Appendix D: ICMM Toolkit

### Section 6. Toolkit

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