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# **CEO'S Message**

As the representative of six major cement companies, it is my belief that sustainable development presents our industry and our companies with long-term strategic challenges, as well as opportunities.

There is no doubt in my mind that business as usual is no longer an acceptable operating practice!

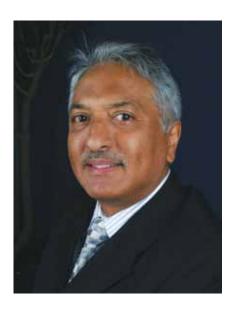
Environmental and social issues are being integrated into the day to day activities of our member companies in an accelerated way. These environmental and social issues are the key sustainable development elements that the ACMP champions on behalf of its member companies. This has led to the development of a clear and unambiguous vision for the ACMP:

"To be a dynamic industry association promoting sustainable development and value add to its members through ensuring sound co-operation between industry, government, society and other relevant role-players."

Internationally, the sustainability interests and goals of the cement industry are promoted through the World Business Council for Sustainable Development's Cement Sustainability Initiative (WBCSD-CSI). Three of our member companies, through their international holding companies, are signatories to this initiative and the ACMP subscribe to the intent of this organisation. The WBCSD-CSI commits companies to transparently report performance data for a number of key issues (including employee health and safety, emissions monitoring and reduction, and CO<sub>2</sub> emissions and climate protection). The ACMP has similarly recognised the importance of these and other sustainability issues and this report has been based on the international best practice as outlined in the Global Reporting Initiative's G3 Framework.

Development of skills in the sector as well as examples of corporate social responsibility projects are reflected in this report. The report provides a quick overview of the sustainability context of the ACMP, its members and the cement industry, by discussing the association's governance, and the most material sustainability issues identified by its members. Further information is available on the ACMP website.

The reporting challenge for the ACMP in the next 3-5 years is to ensure cooperation amongst companies to establish meaningful, industry wide performance indicators and targets, and explain our positions on the material sustainability risks and opportunities faced by the industry. To this end, each member company will need to ensure robust information management



systems supported by verifiable data. The Association is committed to promoting and supporting sustainable reporting amongst its members to achieving the challenge. Key focus areas will include air quality management, waste management, energy, health and safety and addressing uncertainties in the current and proposed legislation. Mainsteaming climate change response will underpin all our activities. All this will be underpinned through ensuring sound co-operation between industry, government, society and other relevant role-players. The ACMP will continue to support government in their endeavours to regulatory reform in line with international standards and best practice.

Dary Com

**Dhiraj Rama**Chief Executive Officer

# **Our Report**

# **Our Organisation**

The Association of Cementitious Material Producers (ACMP) is an industry body convened to represent the mutual interests of its members in the context of sustainable development. Presently, ACMP members consist of six cementitious material producers in South Africa. All the members are registered as Propriety Limited (Pty Ltd) with the exception of one which is Limited (PPC).

Membership to the ACMP is voluntary and is open to any company, within South Africa, involved in the production of cementitious materials. Membership is also dependent on the company's registration with the South African Bureau of Standards (SABS) as our members are committed to implementing strict quality assurance.

#### The members of the ACMP are:

- 1 AfriSam
- 2 Cemlock
- 3 IDM Cement
- 4 Lafarge
- 5 NPC-Cimpor (NPC)
- 6 Pretoria Portland Cement Limited (PPC)

The ACMP's primary function is to identify areas of mutual interest with regard to sustainability, and act on behalf of the member companies or facilitate the participation of member companies through two main avenues:

# • Fostering communication

Supporting member companies through disseminating best practice; providing a platform to discuss mutual challenges and lessons learnt, as well as promoting skills development and capacity building.

#### · Co-ordinated stakeholder engagement

Developing and improving relationships with key stakeholders, particularly with government, NGOs and communities, with the intent of building public trust in the cementitious material producers industry nationally and within the affected communities. Ensuring partnerships with stakeholders is a key objective for the Association.

### **Report Structure**

This report has been based on the international best practice as outlined in the Global Reporting Initiative's G3 Framework. It provides a brief overview of the sustainability context of the ACMP, its members and the cement industry, by discussing the association's governance, and the most material sustainability issues to the industry.

In line with this objective we have structured this report in a way that:

- Places the ACMP in context and discusses our members, the ACMP's governance, and our commitments and describes the cement manufacturing process in brief.
- Highlights the sustainability issues considered most material to the industry, and provide information regarding performance in those areas, which is in line with international sustainability reporting best practice, and in line with our stated goal of working in areas of mutual interest to our member companies.
- Report on the activities of the industry to our stakeholders, to increase awareness and to educate.
- Discusses our stakeholder engagement process and details the association's key stakeholders.
- Gives insight into the future direction of the organisation in terms of our activities and projects and in relation to our reporting.

Although member companies are at different stages in the development of systems for collecting and collating these data, performance data for key indicators have been included. The limitations identified to report comprehensively on all our identified material sustainability issues will be addressed in the future.

### **Scope and Boundaries**

The ACMP's financial year runs from January to December. This report therefore covers annual information and data for 2007 to 2010 accordingly. Data for 2011 requires external assurance by some member companies and will be available on the website in the latter half of 2012. The year-ends of each of the six companies differ and the data has been adjusted to suit the ACMP year end where possible. However there are still some adjustments that will need to be considered for future reporting. We believe that the overall message is consistent as the resulting differences are not significant.

The most important change from the previous report is the decision to apply international best practise, and to work towards compliance with the Global Reporting Initiative (GRI) Reporting Framework.

The GRI is a network-based organization that has developed one of the most widely used sustainability reporting frameworks internationally. This framework sets out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. The ACMP aims to work towards achieving a Self Declared Application Level C in our future reporting. This will signify the starting point of our reporting process and sets out the pathway for our future reporting.

The primary impact of this type of reporting structure is a shift to a more structured approach to stakeholder engagement and risk assessment. This has the additional benefit of strengthening the organisation and focusing our strategy and activities. We also intend to improve our reporting to comply with the commitments made by the WBCSD-CSI, as well as the requirements resulting from our being a signatory to the national Energy Efficiency Accord (a voluntary agreement between business and government to cooperate to pursue the national energy efficiency targets on a voluntary basis).

The current report focuses on the top six material sustainability issues identified by the cement industry and the Association. The issues were selected using a participative materiality assessment process and the workshop was facilitated by KPMG. This was the first time that we undertook this process, as a means of being more responsive to the issues facing our industry and we regard this as the first step in an incremental process. We intend to continue to refine the risk assessment process in the forthcoming reporting cycle. These issues may change in the following reports as the context and challenges facing the cement industry in South Africa change. The scope of the identification of material issues was around social and environmental sustainability elements rather than the business and financial risks associated with the core business of the member companies.

#### **Assurance**

What is assurance and value add?

The intention of this report is to present a high level review of the extent of assurance in the sector. We know that many of the member companies either are, or are planning to, undertake independent assurance of their data. This report does not detail the level of assurance of the data reported. However, in future reporting cycles we will indicate which data has been subjected to an independent assurance process.

### **Reporting Limitations**

Size and profile of companies vary consequently influencing the material issues differently. Due to the complexity of gathering and collating data from organisations with reporting systems of differing size and maturity, it is difficult to confirm the accuracy of all information reported. The ACMP aims to address these limitations in the next reporting cycle. Not all companies were able to provide data on all indicators identified. Consequently where data is presented, it is

sometimes presented as an average and the companies providing data are disclosed. The ACMP aims to assist its members in disclosing more complete, accurate and comparable data.

# **Understanding Our Data**

In order to contextualise our data we have attempted to describe the data in terms of the variation within companies, as well as providing an external benchmark. We have identified companies in the construction value chain, two upstream and two downstream of cement manufactures as well as two additional companies in related construction materials, specifically steel. In order to obtain reasonably complete information, we have chosen companies who are known strong reporters. While the comparisons should be treated with caution as our processes differ to those of the identified companies, it should give a sense of the relative scale of our impacts. For upstream organisations we have chosen diversified mining operations (so as not to focus on a single commodity) and will be looking at Anglo American and BHP Billiton. On the downstream side we have selected Murray and Roberts and Group Five for their comparable operational areas. The two steel manufacturers chosen were ArcelorMittal and Highveld Steel. It is interesting to note that not all companies report consistently against all indicators, if at all. Consequently, we report comparable information where our chosen benchmark companies also report on our selected indicators.

It is important to note that this information has been disclosed in public documents (annual reports and the Carbon Disclosure Project (CDP) 2008 report) and are not strictly comparable. In some cases different definitions have been used in the compilation of data and the reader is encouraged to go to the source documents identified in the text if they wish to use this information. The ACMP has provided this information as a basis for comparison only and takes no responsibility for the accuracy of the information reported by those companies.

Due to differing levels of sophistication in data gathering and differing reporting restrictions some of the data presented on the cementitious material industry in this report is estimated. The ACMP is aware that this information would not comply with the rigorous requirements of an assurance process but have provided you, the reader, with the best estimate. We will, as a collective, continue to develop our reporting systems and protocols and improve the quality of our disclosures.

# **Our Industry's Economic Impact**

The members of the ACMP represent a major part of the cement industry. The members differ in terms of the size and type of operations. Of the members, four companies (Afrisam, Lafarge, NPC and PPC) operate from quarrying through to packaging of cement, whereas two (Cemlock and IDM) are millers and blenders of cement (see figure below).

Some of the member firms control operations outside South Africa. However ACMPs mandate is to address members' operations within South Africa, thus the scope of this report is limited to these operations.

The ACMP offices are located in Midrand, Johannesburg. Each of the member companies have headquarters located in South Africa.

# **South African impact**

The cement industry forms part of the non-metallic minerals sector within the South African economy and accounts for approximately 40% of the sector revenue. The cement industry, as part of the non-metallic minerals sector has economic linkages with most other sectors of the economy, with key linkages to

the building construction and other construction sectors, since it is mostly used in construction of buildings, roads, dams and other infrastructure. As a result of the high number of linkages with other sectors, any investment in this sector will have significant multiplier effects in the rest of the economy.

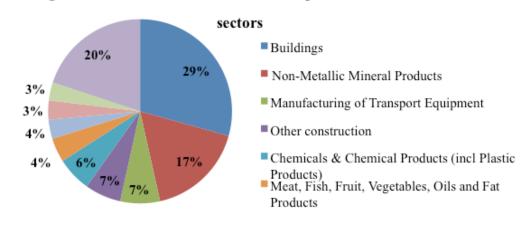
As an example, in 2008, our members contributed approximately R17.87 billion in revenue towards the non-metallic minerals products sector of the South African economy.

During this period, our members were also involved in various infrastructure projects in South Africa. Examples for 2008 include:

- The development of seven housing projects
- The expansion of six schools
- Three projects related to the expansion of hospitals and clinics
- Two projects related to the construction of roads and bridges
- Development of two community halls and four shopping centres



# Linkages between the Non-metallic mineral product sector and other



During 2010, growths in demand for cement products decreased by 7.8%, partly due to the impact of the global economic crisis. In spite of the drop in demand, the local cement industry has been relatively buoyant, partly due to government infrastructure expenditure for the 2010 FIFA World Cup. Additional infrastructure development is also set to take place beyond 2010, and includes low cost housing projects, and transport and harbour improvements. These projects are expected to stimulate local demand for cement products in South Africa.

	2007	2008	2009	2010	
Cementitious Sales (in tons)	14 124 274	13 472 855	11 783 670	10 870 394	

As per the C&Cl, excluding sales to Botswana, Namibia, Swaziland, Imports by 3rd parties, sales by other than reporting companies and exports.

# **Regional impacts**

Our members have representation in all nine provinces of the country, with operations contributing positively to rural economic development in provinces such us the Northern Cape, North West and Western Cape. Some of the impacts include increased economic activity, employment for the local community and local skills development.

NB: Note that the info refers to the cement division and does not include Concrete and Aggregate

SA impact Province	Operations		2009		2010	
Province	Operations Production units	Milling / Blending units	Production units	Milling / Blending units	Production units	Milling / Blending units
Gauteng	1	4	3	16	1	16
Free State		1	0	1	0	1
North west	4		6	6	6	6
Limpopo	1	2	2	4	2	4
Mpumalanga		2	0	2	0	2
Kwazulu-Natal	1	3	1	3	1	3
Eastern Cape	1		1	3	1	3
Western Cape	2		4	8	4	8
Northern Province	1	1	1	0	1	0

# **Employment and skills development**

It is estimated that our members employ 8024 people, the smallest member employs, on average, 78 people and the largest 2010.

The cement industry does experience a shortage of skills. However, in an attempt to reduce the skills gap, our members have become involved in various activities and programmes. Examples of these programmes include:

- PPC operations academy which offers a range of programmes, including a national recognised qualification in cement. PPC spent R30.8 million, 5.7% of its payroll, on skills development of employees with 82% of this amount being spent on previously disadvantaged individuals.
- To promote skills transfer NPC employs their own technical trainers. This assists in equipping operators, in particular drivers, with good basic skills

The following figure summarises the sector in terms of the number of production units vs the number of milling/blending units in South Africa. The information reflected refers to the cement division of member companies and does not include Concrete and Aggregate.

An organisation's economic performance is fundamental to understanding the organisation and its basis for sustainability. One of the member companies, PPC, the only member with public listing demonstrates their direct economic value generated and distributed in the PPC Annual Reports. These reports are accessible on the PPC website.

**Member Corporate Social Investment (CSI)** 

As responsible citizens, the ACMP members are aware of the need for their participation and contribution to the development of South African society. Some of the ACMP members have chosen CSI as an avenue to achieve this. The members run various initiatives, from contributing to schools to developing farming activities. Three of our larger members commit to spending 1% of their 'after tax' income on these kinds of development, which in 2007 amounted to a collective total of R13 million (AfriSam, NPC-Cimpor and PPC) and increased to just over R20 million in 2008 (AfriSam, NPC-Cimpor and PPC).

### **Our Governance**

The ACMP is governed by its Constitution which was drawn up on the establishment of the association in 2002. The Constitution details the role and responsibilities of the association, as well as member companies. Towards the end of 2008, some changes

were made to the governance and structure of the ACMP, including management changes and a refocusing of the association's strategic direction. The diagram below illustrates the governance structure of the ACMP.

# The Executive Committee (Exco)

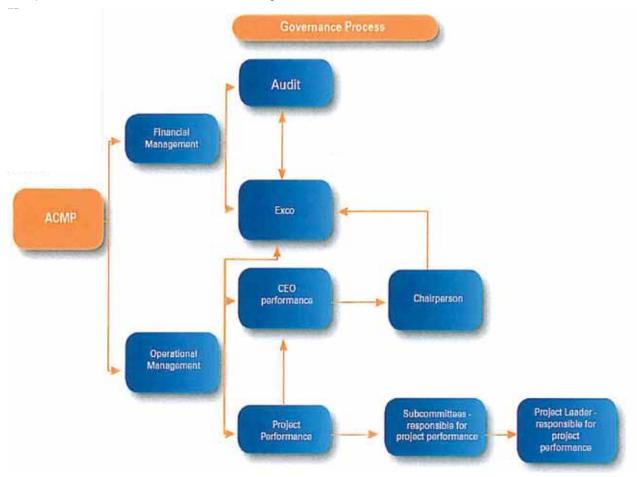
The ACMP Exco is made up of one representative at executive level from each of the six member companies. The Chairpersonship is based upon a two year rotation allowing all member companies to have fair representation as Chairperson.

In 2008 the Exco was chaired by Dr Olivier of Afrisam, while Mr Thierry Legrand chaired for the remaining period.

The responsibilities of the Exco include:

- Overseeing the financial and organisational management of the ACMP
- Providing leadership and direction to the activities, projects and focus areas of the ACMP
- Approval of projects and budgets
- Performance management of the Executive Director of the ACMP

The projects and activities of the ACMP address sustainable development issues related to environment, health and safety, and social issues impacting the cement industry. The Exco meet on a quarterly basis.



#### **Financial Performance**

Funding is obtained from membership fees, which are calculated in proportion to company turnover. The funds received are managed by an independent auditing firm and the association is independently audited on a monthly basis and quarterly audit reports prepared. The audit reports are submitted to the Exco for acceptance.

To ensure our independence from government and any other interested organisations, especially when representing the industry in legislation based stakeholder engagement, no financial assistance is received from other sources (including government).

# **Operational Management of ACMP**

Management of the ACMP is the responsibility of the Executive Director. As of October 2008, the directorship changed and the association is now headed by Dr Dhiraj Rama. As Executive Director, Dr Rama is responsible for the overall running of the association. He represents the member companies equally and fairly when engaging with stakeholders. He is responsible for identifying the mutual needs of members and the planning and implementation of the association's projects and programmes to address those needs.

It is important for the members and others operating within this industry sector that there is an objective and independent person managing the ACMP, and ensuring that the needs of the members are addressed equally. The Executive Director's independence is assured as he is not an employee of any member company but employed directly by the Association.

The performance of the Executive Director is evaluated by the Chairperson of the Exco on a monthly basis. The Executive Director has agreed Key Performance Indicators which are linked to the success of managing the ACMP's finances and operations through the projects and activities of the association.

# **Project Performance Management**

#### **Sub-Committees**

In order for the ACMP to fulfil its objectives, sub-committees were constituted in previous years with representatives from all the member companies to discuss, prioritise and act on the various shared issues that face the members. This has the additional benefit of technical knowledge sharing and collaboration between the member companies.

The ACMP runs various projects through different steering committees.

- Environmental Committee
- Secondary Materials Group
- Health and Safety Committee
- Cement, Lime, Aggregates and Sand Committee
- Logistics
- However, the Environmental Committee and the Secondary Materials Group merged into one Sustainability Committee during the earlier period and project management principles initiated by constituting project teams for the projects identified. It was also agreed that the Health and Safety Committee would only meet as and when the need arises, while the Logistics Committee was phased out. Projects related to logistics once identified would be implemented on project management principles and Representatives form member companies identified as project team members.

# **Our Current Prospects and Activities**

Our ongoing commitment is to develop and maintain a sustainable cement industry in South Africa. As an association it is our responsibility to identify and address the common issues and challenges facing our members in the cement industry and therefore develop the appropriate projects to assist with this objective. Our approach is to tackle these issues through various subcommittees which involve representatives of member companies. Projects and activities are approved by the Exco, while the execution and management of subcommittees and their projects is the responsibility of the Executive Director.

The main objective of the projects is to address the common concerns and challenges facing the member companies. Criteria for identifying projects include:

- Law reform processes
- Example: Contributions to National Waste Management Strategy, Waste classification and remediation of land
- Common challenges that face the industry
- Implementation of systems in anticipation of legislation
- Key partnerships with Authorities
- Capacity building

Sub-Committee	Key Performance Areas	Key Outcome
Environmental committee	Capacity building	Annual CO <sub>2</sub> emissions report
	Waste matrix	Regulatory comments
	Calculation of CO2 emissions	
	Annual report	
	Inform draft legislations	
Secondary Materials	Thermal Policy	National Policy on the High
committee	Communications Resource	Temperature Treatment of Waste
	Storage and Handling	was developed and published
	Training	by the department.
	Emergency Response	Cement Industry had key
	Emissions	
	Support the National Waste	
	management strategy initiatives of	
	the Department of Environmental Affairs	
	and Toursim	
	input in the legislation	
Logistics	TFR: rail transport challenges	Support TFR at Transnet to
	to promote sustainable transport by	establish their "war room" to
	engaging with the TFR at transnet	manage efficient rail network
Safety committee	Safety statistics reported monthly	Annual Safety Statistics report
	consolidation of occupational safety	
	data across the sector	
Cement, Lime, Aggregates	s & Sand (CLAS)	
CLAS is an industry	Qualifications Research and Development	Participation and funding the
committee in which the	Development of Skills Programmes	Technical reference group
ACMP is a member.	Development of Unit Standards	established by the Mine
	Learnerships	Qualification Authpority
	Engineering Qualifications	Drafting content and registration
	Learner Packs	of learning programmes with the
	Dealing with matters related with the	South African Qualifications
	MQA (Mines Qualifications Authority)	Authority (SAQA) and the Mines
		Qualifications Authority (MQA)

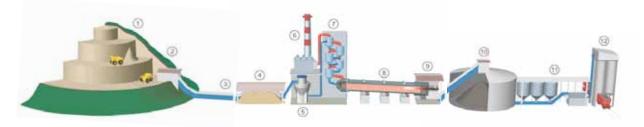
# **The Cement Manufacturing Process**

Cement is the binding component in concrete, which is the most commonly used man-made material in the world. Concrete is typically made up of gravel and/or crushed stone, sand, water and cement.

Cement comprises only about 10 to 15% of the volume of concrete but without it the construction of many of our modern structures would not have been possible. The production of cement is essentially a five step process:

Raw material preparation: the primary input materials of limestone, shale and sand are mined in quarries. The materials are crushed into a finer size to facilitate transport and processing. The major raw material, limestone, is typically blended in stockpiles. Many of the ACMP member companies operate their own quarries, and this portion of the production process is subject to South Africa's mining legislation.

**Clinker Production:** the primary input materials are proportioned, ground and blended to achieve a consistent and appropriate chemical composition.





They are then heated to very high temperature (approximately 1,450°C) in a rotary kiln, typically fired with pulverised coal. (To improve energy efficiency, the raw materials in some kiln systems are pre-heated before entry into the kiln.) The clinker that is formed is rapidly cooled. This hard, granular material is stored in silos for further processing on site (or is sold to other companies for further processing).

**Clinker Grinding:** the clinker is ground together with gypsum and possibly small amounts of additional minor constituents. The quantities of gypsum and other materials determine the strength and chemical resistance of the cement and quantities are adjusted according to the specifications of the required product.

**Blending:** the clinker and gypsum is further combined with extenders such as limestone, ground granulated blast furnace slag and fly ash to produce cement. This can either occur in the grinding stage itself or as part of a separate step. The extenders of choice are materials that add quality characteristics to the final cement product while allowing less energy intensive clinker to be used.

**Logistics:** the transport of raw material and final product (either as clinker, bagged or bulk cement) is a critical component of the process and significantly influences costs. In South Africa, much of the transport is done by road when (particularly in the case of bulk cement and raw materials) rail could be more efficient.

# International - World Business Council for Sustainable Development Cement Sustainability Initiative (WBCSD - CSI)

The WBCSD-CSI is the largest global sustainability programme ever undertaken by a single industry sector. The Cement Sustainability Initiative (CSI), as a global effort by 18 major cement producers, believes that there is a strong business case for the pursuit of sustainable development. Collectively these companies account for about 30% of the world's cement production. Three of the ACMP member companies are involved through their international companies, namely; Afrisam (Holcim), NPC (Cimpor) and Lafarge.

Project	Objectives	Progress
Occupational Health and Safety	This project aims to implement systems to collect and collate safety statistics for the cement industry	Completed annually
Skills Development	The ACMP partnered with ASPASA to develop training material for the CLAS sector for the Mine Qualification Authority (MQA)	Ongoing
Emissions	The project aims to implement systems to collect and collate CO2 emissions data for the members	Completed anually
Waste	The ACMP is developing a waste decision matrix	Completed √
Emissions	The ACMP successfully developed an air quality monitoring protocol for member companies	Completed √
Alternative Energy	For this project the ACMP supported the Department of Environmental Affairs and Tourism in developing the Alternative Fuel Thermal policy in kilns	Completed √
Transport	The ACMP, in partnership with Transnet, developed a War Room for freight rail	Completed √

#### Health

**Highlights** We have identified our material health issues and are addressing these through various wellness programmes implemented in our member companies

**Actions** We will assist members in implementing wellness programmes for all employees

**Targets** We aim to report sector wide occupational health incidents and HIV/Aids data

### Safety

**Highlights** Our member companies are all moving towards a behaviour based approach to safety, which aims to change the culture in the workforce and reduce injuries

**Actions** We will improve the monitoring of contractor safety and through training improve performance

**Targets** We plan to report sector wide safety statistics and show our improved performance

#### **Skills**

**Highlights** A number of our member companies have implemented programmes to train and upskill the workforce

**Actions** Our subcommittee will continue to address skills development through training and learnerships

**Targets** We aim to increase our training and learnerships programmes in the coming years

# **Energy and Climate Change**

#### **Highlights**

The ACMP is a signatory to the Energy Efficiency Accord and part of the Task Team. Two of our member companies are also signatories in their own right. CO<sub>2</sub> data is collated for the industry

**Actions** We will work towards meeting the targets set out in the Energy Efficiency Accord. We will work with the National Authorities in developing an accurate reporting methodology for CO<sub>2</sub> in the cement industry

**Targets** We aim to report on our sector wide energy reduction targets and improving on our reporting of our carbon footprint.

#### **Atmospheric Emissions**

**Highlights** Many of our companies have invested in equipment to measure emissions from their processes

**Actions** We will reduce our emissions in a phased approach through process improvements and equipment upgrades

**Targets** We aim to measure and report sector wide emissions

#### Water

**Highlights** We are taking steps to address our water consumption and looking towards addressing concerns around water scarcity

**Actions** We will work towards finding innovative ways to reduce our water consumption

**Targets** We aim to report on our sector wide water consumption data in future reports

# Our Commitments to Voluntary Codes and Standards

The purpose of the Initiative is to:

- Explore what sustainable development means for the cement industry;
- Identify actions and facilitate steps cement companies can take, individually and as a group, to accelerate progress toward sustainable development;
- Provide a framework for other cement companies to become involved;
- Create the content and context for further stakeholder engagement.

According to the WBCSD, the main issues facing the cement industry are :

- CO<sub>2</sub> emissions and Climate Protection
- Responsible Use of Fuels and Raw Materials
- Employee Health and Safety
- Emissions Monitoring and Reduction
- Local Impacts on Land and Communities
- Concrete Recycling

The ACMP acknowledges the above issues as material to the association and its member companies and addresses a number of these in this report.

# International – United Nations Global Compact (UNGC)

The UNGC is a voluntary initiative of which two of the ACMP members – Lafarge and Afrisam through Holcimare signatories through their international companies. The UNGC is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anticorruption.

The Global Compact exists to assist the private sector in the management of increasingly complex risks and opportunities relating to environmental, social and governance issues. By partnering with companies in this way, and making use of the expertise and capacities of a range of other stakeholders, the Global Compact seeks to embed markets and societies with universal principles and values for the benefit of all.

Although not a signatory, the ACMP acknowledges these principles in considering the material sustainability issues within South Africa and the selection of projects to address those issues.

# National - Department of Energy and the National Business Initiative's Energy Efficiency Accord

The ACMP is a signatory to the Energy Efficiency Accord. This is a voluntary initiative which was

developed between South African business and the Government in recognition of the need to improve thermal and electrical energy efficiency.

The Department of Energy and the industry signatories collectively agree to collaborate to establish a mutually beneficial framework for voluntary energy efficiency initiatives that will move the country towards its goals of attracting investment in mitigation and adaptation projects and efficient energy use.

The Energy Efficiency Accord commits business to "cooperate to pursue the national energy efficiency targets on a voluntary basis, recognising that energy usage is a major contributor to greenhouse gas emissions in South Africa. They also agree to collaborate on initiatives that could result in CDM projects. The target, set in terms of the Energy Efficiency Strategy of the Republic of South Africa, of a national final energy demand reduction of 12% by 2015, expressed as a percentage reduction against the projected national energy use in 2015, with a final energy demand reduction target for the industry and mining sector as a whole of 15% by 2015. "

The ACMP became a signatory to the Accord in 2005. Two of our members, Afrisam and PPC, are also signatories in their own right and have therefore committed to the above target. The ACMP addresses energy efficiency issues through projects managed by the Environmental Committee (and in future by the Sustainability Committee).

#### **National Commitments**

The ACMP members use various forums to report on the different aspects of their performance. These forums include, the Carbon Disclosure Project, the JSE SRI and government departments.

# Members commitments to ACMP

The ACMP members have adopted the following 2 policies:



#### **ACMP ENVIRONMENTAL POLICY**

The ACMP commits to transparent reporting of key environmental indicators and providing a sound knowledge management platform to members and relevant stakeholders with regards to environmental best practice.

The members are all committed to:

- Continuously improve and promote environmental best practice.
- Pollution prevention
- Continuously reviewing environmental impacts in order to minimise environmental degradation
- Comply with environmental legislation and other requirements to which the ACMP subscribes
- Implement effective waste and energy management principles
- Utilisation of all resources in an optimal and responsible manner
- Effective and transparent communication to all stakeholders

This environmental policy demonstrates our members commitment to environmental stewardship

#### **ACMP CLIMATE CHANGE POLICY**

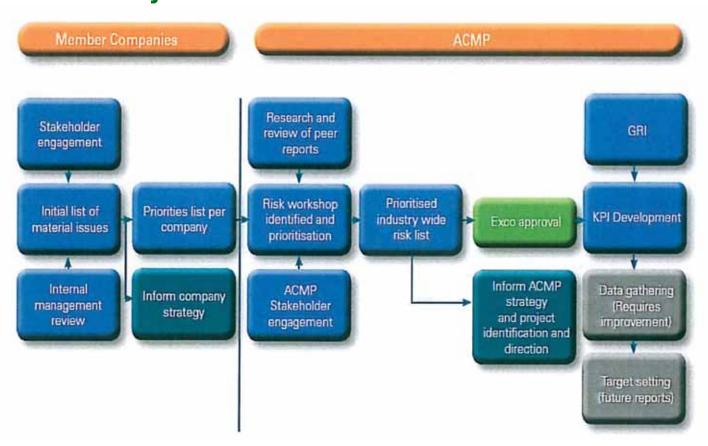
All members of the ACMP recognize that climate change poses a real global threat to sustainable development that requires a global response. An effective global solution requires action from all countries that must be aligned with agreed global and national objectives.

As a result all ACMP members aim to pro-actively adopt and/or develop mitigation and adaptation strategies to manage greenhouse gas emissions while incorporating national development goals.

ACMP members will achieve this objective by:

- Engaging with relevant stakeholders and supporting the development of national initiatives to manage Greenhouse gases
- Reporting and monitoring of CO<sub>2</sub> emissions from the local cement manufacturing sector using globally accepted reporting protocols
- Establishing business and operational plans to manage CO<sub>2</sub> emitted
- Establishing sector specific benchmarks for operational efficiency
- Ongoing review of strategies, best practices and continuous improvement

# **Materiality Process**



#### **Our Approach to Assessing Risk**

The cement industry is exposed to many risks that have a significant impact on ACMP members. We recognise the need to fully understand the risks and opportunities facing the cement industry in order for these to inform the strategy and activities of the association. The ACMP has chosen to do this through a risk assessment process, which was started this year and will be refined and reviewed annually. Furthermore, the identification of material issues focuses our reporting and defines the structure of the report.

This report touches on many of the issues considered fundamental by the WBCSD-CSI. Issues that are not currently included in the ACMP reporting are the responsible use of raw materials and local impact on land and communities. Reporting and communication is an important aspect of both the WBCSD-CSI, and our strategy is to report on the remaining WBCSD-CSI issues in future reporting cycles.

#### **Our Six Most Material Risks**

The following risks were identified as material to our industry and member companies:

- Health
- Safety
- Skills and Transformation
- Energy and Climate Change
- Wate
- Atmospheric Emissions

#### Health

Ensuring the health of employees and contractors at cement facilities is a top priority for the ACMP and its members. Maintaining employee health is a moral imperative as well as ensuring a happy, productive and safe workforce. To achieve this, many of the larger ACMP members have implemented various wellness programmes to educate and provide care for employees. Our concern for the health of our employees stems from the fact that in South Africa cement production has been associated with a number of serious health problems arising from the inherent health hazards in the production process, including:

- exposure to dust
- exposure to high temperatures
- potential allergic reaction to powders
- noise exposure

The health concerns include Noise Induced Hearing Loss (NIHL) and respiratory diseases. Noise is a well managed health risk within the cement industry. However 11 new cases of NIHL were reported in 2008. It is a concern that only 3 of the 6 ACMP member companies are able to report on NIHL statistics.

# Number of New Cases of Tuberculosis (TB) 2007 2008 2009 2010 ACMP Member Employees 25 25 6 6

Includes figures from Lafarge, NPC and PPC

We have noted that in addition to the well known occupational illnesses, more uncommon illnesses have started to emerge in our members' workforce. Some of these include hypertension and diabetes. As yet, there is no evidence to suggest what the causes of these are within the cement industry, however, this is still a concern for the association and it is important that measures are taken to limit incidences of these diseases. As part of the health and wellbeing programmes for

As part of the health and wellbeing programmes for employees and communities at member operations, the industry is addressing the treatment of TB, diabetes and hypertension of employees that are identified as at risk

The cement industry is associated with respiratory diseases, such as Pulmonary Tuberculosis (TB). Cement production can produce high levels of dust, which without effective controls can lead to respiratory disease. It is therefore essential that the ACMP and its member companies ensure the well-being of their employees through the correct operation of dust mitigation equipment as well as awareness campaigns and education.

An additional concern for the ACMP members is the number of TB infections in HIV positive employees. This is addressed through the various wellness programmes run by the members as well as treating infected employees.

### HIV/Aids

As a responsible association operating in South Africa we are compelled to view and address HIV/Aids as a priority for our businesses. 2007 HIV prevalence rates reported in peer reporting are 15% (Group 5) and 19% (Anglo American). It is likely that demographics within our industry are similar. ACMP members have chosen to address HIV/Aids in the workforce in different ways, all with the aim of informing and preventing infection, and treating and caring for HIV positive employees.

Our members provide Voluntary Counselling and Testing (VCT) for their employees as a means to raise awareness and encourage employees to know their status. The industry has seen an increase of 30% more employees having access to VCT between 2007 and 2008. This is largely due to AfriSam, Lafarge and PPC putting VCT processes in place. This equates to roughly 69% of the industry workforce involved in VCT, which equates well when compared to information availed in reports selected for benchmarking. In 2007 Anglo American reported that 72% (77%: 2008) of their employees were on VCT, while Group 5 reported 41%.

# Number of Employees on Anti-Retroviral Treatment (ART)

	2007	2008	2009	2010
ACMP Member Employees	16	224	2	3

2007 includes figures from NPC and PPC 2008 includes figures from Afrisam, Lafarge, NPC and PPC

Furthermore, some members offer Anti-Retroviral Treatment (ART) to their employees. This programme is promoted on an ongoing basis to ensure that the level of awareness and care is increasing and we are able to assist in maintaining the health of more employees. It is to be noted that many members believe that most employees prefer to get the medication from their private doctors rather than through the companies. If, however, we compare the 2008 percentage of employees on an ART programme to others, the uptake in our industry is slightly lower than reported by our peers. Anglo American reported that 5% (2008) of their employees on VCT programmes are also on ART, while the equivalent figure for the cementitious material producers industry is 2%. The ACMP member firms may need to focus on encouraging the conversion of VCT participants who test HIV Positive to participate in an ART programme. Number of Employees Incorporated into a VCT programme (VCT)

#### Challenges

The ACMP member companies have found that the greatest barrier to the prevention of the above mentioned diseases is employee compliance and behaviour. They have found that although the employees are aware of the risks and the prevention equipment available, often they do not comply. The member companies choose to address this through competency and behaviour based training. By taking this approach, the members aim to change the culture from within the organisation to ensure that all employees are safe and healthy.

# Number of Employees Incorporated into a VCT programme (VCT)

	2007	2008	2009	2010
ACMP Member Employees	2412	3126	2149	1775

2007 includes figures from NPC and PPC 2008 includes figures from Afrisam, Lafarge, NPC and PPC

Another challenge for the ACMP and its members is ensuring the good health and wellbeing of surrounding communities which may be impacted by operations. It is essential that these concerns are addressed through stakeholder engagement processes and that community members are able to access health care facilities.

#### Safety

Safety is an area in which the ACMP and its member companies do not compromise. Although the member companies all have varying approaches to safety, the underlying principle and ultimate goal is 'Zero Harm'. An employee's injury has immeasurable consequences for the employees and their families, and must therefore be prevented and avoided at all cost.

Additionally, the skills shortage impacts on safety as young and inexperienced employees are less careful. On the other hand, more experienced workers might be more likely to become complacent. The ACMP has acknowledged this and addresses these concerns in the subcommittees and activities of the organisation through emphasis on safety training as part of skills development.

Lost Time Injuries (LTIs) is the standard measure for safety system effectiveness and to aid comparison is often expressed as a Lost Time Injury Frequency Rate (LTIFR). The average LTIFR for the industry has remained constant at 0.8 between 2007 and 2008. There is however a large range of LTIFR's calculated for each member company from 0.3 to 2.74 in 2008. This could point to the use of differing standards in classifying LTI's within member firms, or differing safety performances. In either case the ACMP aims to assist in the industry in standardising definitions and tracking safety performance. If we compare the LTIFR numbers reported in peer reports the cement industry compares favourably. LTIFR's reported range from other companies are 0.5-2.5, as follows: 0.5 (Group 5), 1.15 (Anglo American), 2.4 (ArcelorMittal), and 2.5 (Murray & Roberts).

We also note that in 2007 and 2008 we experienced zero employee fatalities amongst our direct employees, and we aim to ensure that this record continues. However, it was with great sadness and regret that four contractors lost their lives in 2008.

# Employee Lost Time Injury Frequency Rate 2007 2008 2009 2010

Lost Time Injury				
Frequency Rate (LTIFR)	0.80	0.81	0	-

LTIFR is calculated as Lost Time Injuries multiplied by 1,000,000, and divided by total no. of hours worked Includes Afrisam, Lafarge, IDM, NPC and PPC

#### **Contractor Safety**

Contractor safety poses a major challenge for many of our member companies who have found that the majority of accidents and injuries involve contractors. Companies are required to focus on the training and protection of their direct workforce, however it is assumed that contractors will be managed by the contract company.

Contractors are frequently used for cleaning and maintenance activities, especially during major planned plant shutdowns, where an additional workforce is required to meet tight schedules. As a result, contractors can be exposed to some of the higher risk activities, leading to an increased rate of accidents if the contractors are not fully trained and familiar with the plant and its hazards. ACMP believes that contractor safety awareness can be improved through induction training addressing the specific hazards and control measures related to cement manufacturing facilities. Furthermore, contractors need to be incentivised to deliver better safety performance.

#### **Approach to Managing Safety**

Member companies have found that a behaviour based approach to safety has worked well in addressing safety in their workforce. This is underpinned by safety leadership and ongoing training.

#### **Behavioural Based Safety**

Entrenching caring and safe behaviours into an organisation is a critical responsibility of both management and employees. It is behaviour that turns systems and procedures into reality. Optimal safety performance is dependent on how seriously organisations demonstrate that they value the safety of their employees. It is therefore imperative that management create a work environment that will motivate employees to work safely. A culture of blaming employees for incidents, accidents and injuries is counter-productive and can result in a culture of distrust and fear.

Behaviour-based safety is a process that ensures that safety becomes a value within organizations, by doing safety and not only "talking" safety. Managers and supervisors are required to perform their safety responsibilities on a daily basis.

### **Skills and Transformation**

"The greatest constraint to cement production in South Africa is the current skills shortage. As with other industries, cement production companies, construction companies and all related businesses within the industry are searching for people with the necessary skills to do the various jobs required to run an efficient cement industry." Concrete & Cement Institute MD Dr Graham Grieve.

Due to the historic legacy of inequality in South Africa, skills development and skills shortages currently pose a significant risk to the cement industry and South Africa's economy.

Skills are a complex issue as they encompass many angles and concerns. On the one hand, the cement industry has to source employees with the particular technical skills necessary in the cement manufacturing process. On the other hand, cement companies have to address transformation through their recruitment and skills development process. The challenge is addressing both of these concerns in an environment where the skills are scarce and the potential employees who will contribute to Employment Equity are in high demand. Most employees are recruited from South African communities.

Being able to attract and retain these young employees is a major concern for the ACMP members due to a number of factors, including:

- the remote location of most cement factories
- the increase in competitors
- the loss of employees to other companies and
- the poor marketing of careers in the cement industry

In addition to recruiting employees with the correct set of skills, the ACMP members are also involved in the training and upskilling of their workforce.

#### **Approaches to Skills Development**

The ACMP has committed to building the capacity of the cement industry through the development of qualifications and learnerships. This is done through the Environmental Committee and membership of the CLAS committee, which is an industry grouping. These projects are aimed at developing the skills necessary for the cement industry and ensuring skills transfer. There is also close co-operation with the Minies Qualification Authority of the Department of Mineral Resources to inform training and related accreditation processes.

The member companies aim to invest in the upskilling of their employees as they recognise the importance of contributing to the development of their people. The members do this through various training initiatives and have found different approaches to be successful. For example, certain companies have found that blended on-the-job training is a useful approach while other companies find that learnerships are successful.

In 2007 the average number of hours of training per employee was 37. This average was maintained in 2008, although the range within member firms is from 27 to 71. We are pleased to note that the members have increased the number of people in learnerships from 96 in 2007 to 306 in 2008. It is significant that of the 306 learnerships reported, 243 are provided by 1 company. While the increase shows a commitment to skills development we aim to continue to increase these numbers in the future by involving more companies in industry led initiatives as our peers report relatively more learnerships. The learnerships provided by the cementitious material producing industry represent about 1%(2008) of the workforce, where Murray and Roberts report 3% and Group 5 reports 2%.

#### **Transformation and Employment Equity**

The ACMP and its members are committed to addressing transformation in the cement industry. We acknowledge that there are many challenges and obstacles to achieving this and that these need to be overcome through innovative approaches to the way we manage our people.

As discussed earlier, one of the main barriers to addressing transformation is the ability for the cement industry to attract and retain employees who contribute to Employment Equity. Due to the fact that these employees are in high demand, they are drawn to higher remuneration and more attractive locations. We acknowledge that the way the cement industry markets careers could be done in a more enticing and interesting way. The ACMP aims to address this issue through future projects.

Despite the challenges, we are beginning to see improvements towards gender equity. If we compare ourselves to our peers we compare very favourably. The average level of women in the workforce (2008) within Anglo American, BHP Billiton, Murray and Roberts and ArcelorMittal is 12%, well below our member estimate of 29%. Furthermore if you consider that two companies within the cementitious material producer industry have over 50%women in the workforce, this is an area where we perform well. The average number of women in management (13%)also compares favourably with the average of our peers (11%).

If we consider performance against our peers with regard to HDSA in management, we are slightly ahead of the average of 28%.

# Average Number of Hours Training per Employee

	2007	2008	2009	2010
Average training hours	37	37	30.8	29.28

2007 includes IDM, Lafarge, NPC, PPC 2008 figure includes Afrisam, IDM, Lafarge, NPC and PPC

#### **Number of Learnerships**

	2007	2008	2009	2010
Learnerships	96	306	231	243

2007 includes Afrisam, IDM, Lafarge, NPC and PPC 2008 figure includes Afrisam, IDM, Lafarge, NPC and PPC

### **Employment Equity**

	2007	2008	2009	2010
Average percentage of women in workforce	24	29	21	21
Average percentage of women in management	10	13	12	14
Average percentage of HDSA in management	34	33	46	53

Includes figures from Afrisam, IDM, Lafarge, NPC and PPC

# **Energy and Climate Change**

#### Energy

The WBCSD-CSI identified energy as a key material risk to be addressed by the cement industry. This is particularly relevant to cement manufacturers in South Africa at a time when we are facing critical electrical energy shortages and increasing electricity and coal tariffs. As the cement manufacturing process is thermally energy intensive, the impact of these issues have been felt by the ACMP members, and has been identified as a material concern.

To address the risks relating to energy, the ACMP and two of its members are participants in the previously Department of Minerals and Energy(DME) and National Business Initiative (NBI) Energy Efficiency Accord.

The ACMP understands that, to achieve a step change reduction in energy consumption while maintaining production, the most effective way to reduce energy consumption is through technology transformation. We note that our energy consumption increased by 25%

between 2007 and 2008 while there has been a slight decrease our electricity purchased from 2007 to 2008.

According to the WBCSD-CSI, technology is a key pillar in the cement industry's drive to reduce emission levels and energy efficiency. Investments in research and development have enabled cement producers worldwide to install state-of-the-art technology in new and, to some extent, in existing cement plants, improving overall energy efficiency.

The challenge for cement producers in developing countries is the cost and the availability of this technology. This is compounded by the fact that many of the South African plants have been in existence for many years. The ACMP aims to explore this area further to assist the members in becoming more energy efficient.

# **Total Electricity Purchased (MWh)**

2007 2008 2009 2010

Electricity

Purchased 611,150.5 606,153.5 946,498 852,230

Includes Afrisam, IDM, NPC and PPC

### Average Energy Consumption (GJ)

2007 2008 2009 2010

Energy

Consumption 2,238,278 2,620,412 1,741,542 1,511,703

Includes Afrisam, Lafarge, NPC and PPC

#### Challenges

# **Electrical Energy Usage**

- Power Conservation Programme (PCP) / Electrical Energy constraints,
- Price increases,
- Ability of the cement industry to reduce consumption by 10% without technology changes and without cutting production output

The main problem with the reduction of electrical consumption in the cement industry is that the SA cement industry have achieved significant improvements in electrical energy efficiency in the last 10 years (through process and equipment efficiency). The current national demand to reduce the consumption by a further 10% would be unachievable.

### Alternate fuels

- Delays in the approval of the emissions standards
- Lack of capacity in provincial environmental authorities, leading to excessive delays in the approval of authorisations for the co-processing of waste.

"The cement industry is at the centre of the climate change debate — but the world needs construction material for schools, hospitals and homes," said Olivier Luneau, head of sustainability at Lafarge. "Because of our initiatives, emissions are growing slower than they would without the interventions."

#### **Climate Change**

Continued growth globally results in an increasing demand for construction materials. According to WWF, the consequence of this growth is that the global production of cement in 2030 is projected to grow to a level roughly five times higher than that of 1990, or close to 5 billion tonnes worldwide. In turn, this impacts the overall level of greenhouse gas (GHG) emissions as the production of each tonne of cement results in emissions of roughly 0.89 tonnes of  $\mathrm{CO}_2$  per tonne of cementitious material.

Globally, the cement industry contributes to about 5% of man-made  $\mathrm{CO}_2$  emissions (IEA, 2011), while in South Africa the cement industry actually contributes to less than 1% of the country's  $\mathrm{CO}_2$  emissions In terms of the SA National Inventory gazetted.

The emissions are made up as follows:

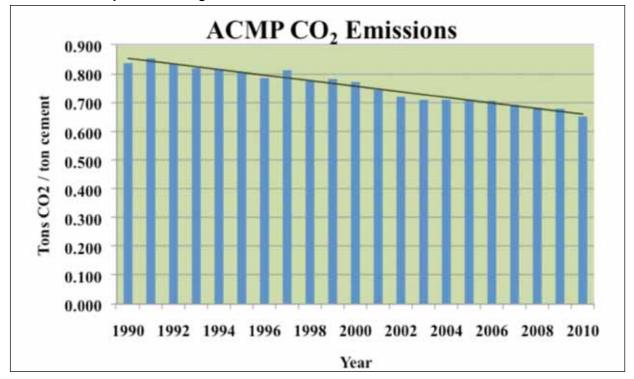
- Clinker production (i.e. calcination of limestone): 50%
- Burning fuel: 40%
- Electricity use and transportation: 10%

The manufacturing process requires the burning of coal to heat material in kilns to approximately 1,350°C. This process results in the generation of  $\mathrm{CO}_2$ . As the limestone (which is mostly calcium carbonate) is heated it de-carbonates, this is a chemical change which frees carbon dioxide. In the cement manufacturing process, about 60% of the emitted  $\mathrm{CO}_2$  is from the de-carbonation of limestone, and 40% from the burning of fuels.

Interplant transportation emissions come into play where cement is processed at more than one facility. Many companies around the world have found ways to reduce their consumption. However, before this is to take place it is important that companies monitor their emissions.

In the case of the South African industry, we have seen a decline in the amount of  $\mathrm{CO}_2$  produced per tonne of cementitious material. This decline is due to ACMP member companies increasing their mix of clinker to clinker substitutes. The percentage of clinker substitutes as a percentage of the total mix of materials has increased from 12% in 1990 through 23% in 2000 to 41% in 2009. The substitute materials have very few emissions associated with them and this is why they make such climate friendly clinker substitutes while still providing unique quality benefits to the final cement

GHG emission profile during 2010



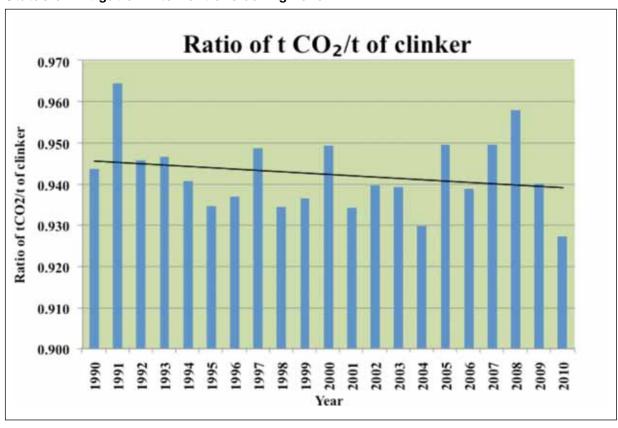
products. As less  $\mathrm{CO}_2$  per tonne is produced in the manufacture of clinker substitutes this has resulted in a lowering of the  $\mathrm{CO}_2$  footprint for cementitious material in South Africa, although the actual impact is not quantified here.

If we plot  ${\rm CO_2}$  per tonne of clinker produced we see that there has been no significant reduction in the carbon efficiency of clinker production. The peaks seen here

can be explained byfunction of technology, burning process which remains constant for a number of years.

The net  $\mathrm{CO}_2$  production for the manufacture of clinker (in one year) is 8.3 million tonnes. According to the 2008 Carbon Disclosure Project, the construction and construction materials sector accounts for roughly 3% of South Africa's emissions. The major contribution of  $\mathrm{CO}_2$  emissions are from the Metals and Mining (46%), Oil and

# Status of mitigation interventions during 2010



Gas (32%), Steel (8%), and Paper and Forest Product (3%) sectors. ArcelorMittal South Africa is the 5th largest emitter at 16.5 million tonnes of  $\rm CO_2$ . Outside of the top 12 emitters, the CDP reports that the remaining 67 companies disclosed 12.5 million tonnes of carbon. In 2007/8, PPC reported emissions of 6 million tonnes of  $\rm CO_2$ . Therefore, it may be concluded that a number of the individual companies within the ACMP can be classified as high emitters of  $\rm CO_2$ .

The ACMP members have been working toward reducing their  $\mathrm{CO_2}$  emissions and we are pleased to note a steady decrease (in specific  $\mathrm{CO_2}$  emission levels)One of the member companies, PPC has recognised climate change as a strategic priority and developed a climate change strategy with voluntary  $\mathrm{CO_2}$  reduction targets. The strategy aimed to address high-level interventions to support PPC's  $\mathrm{CO_2}$  reduction targets and reduce the carbon footprint of its operations. The strategy sets a target of reducing  $\mathrm{CO_2}$  emissions from the manufacture of cement by 15% per ton by the year 2020, using 2008 as a baseline.

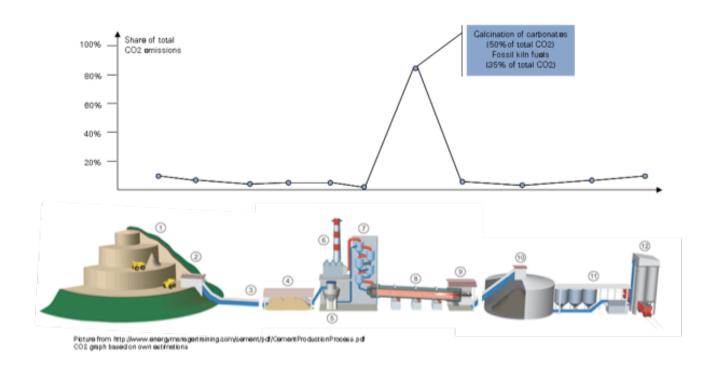
AfriSam has introduced Product Carbon Footprinting (PCF) in an effort to awareness around product carbon footprints.

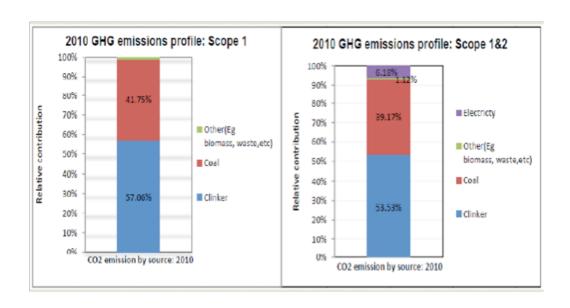
Lafarge and NPC-Cimpor also have had an intensive focus on mitigation driven top down as international corporate SD drivers.

PPC works with a number of its customers, as part of its extended producer responsibility, to find solutions to reducing the life cycle carbon footprint of the final product i.e. structures within the built environment. PPC's new product strategy enables its customers to reduce the cement used by 15% with an associated reduction in the embodied carbon footprint of the structure.

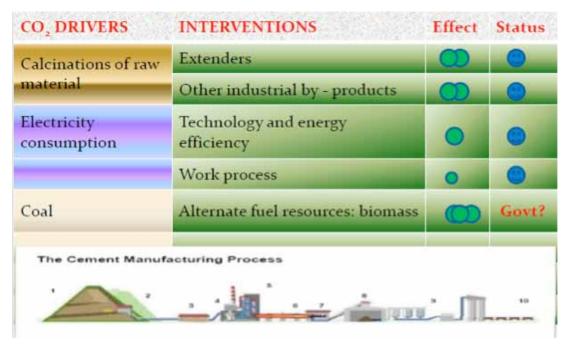
The GHG emission profile for 2010 is summarized in the Figure below.

# GHG emissions along the Cement Production Process





All members are actively addressing the key drivers of  $CO_2$  mitigation and the status as at 2010 is illustrated in the Figure below:



#### Water

#### **Water Scarcity**

The ACMP acknowledges that the availability of water is a growing concern in South Africa and it is committed to contributing to water management that will ease pressure on our natural resources.

According to the National State of the Environment report, freshwater resources are already fully utilised and under stress. It is unlikely that the demand on water resources will be sustainable because of population growth and economic development. This situation is further exacerbated by water pollution caused by a number of factors, including industrial effluents, domestic and commercial sewage, acid mine drainage, agricultural runoff and litter.

Furthermore, it is expected that a Water Efficiency Accord (similar to the Energy Efficiency Accord) and a Water Disclosure Project (similar to the Carbon Disclosure Project) will be launched in the near future. As the Carbon Disclosure Project has been the precursor to government announcing mandatory GHG reporting (in the lead up to a possible carbon taxation system), so we can expect that water management reporting will also be closely linked to tariff reforms (tariff increases) in the near future.

"Our challenge here is not so much to invent as it is to alter the way we think and act on how we use our water,"BuyelwaSonjica, Minister of Water and Environmental Affairs. "We don't have the luxury of choice and time unfortunately — we must act now and do that decisively."

Although cement manufacturing is not a water intensive process, water is used in parts of the process and for dust suppression. It is therefore important for the cement industry to work towards reducing water consumption and make use of innovative ways to counteract the scarcity of water. We note that there has been an average increase in water usage from 2007 to 2008.

However, if we compare our water consumption to peer industries, our total consumption makes up a small percentage. Our water usage works out to approximately 2% of Anglo American's water consumption. Members are committed to water use efficiency, in an effort to ensure that our consumption does not increase significantly in future.

#### **Water Licenses**

A challenge facing the ACMP and its members relates to the application of water discharge licenses. As a regulatory requirement, the members have had to reapply for these licenses. Unfortunately, due to delays members are yet to receive confirmation of all applications.

#### **Atmospheric Emissions**

The most significant pollutants identified by the members of the ACMP are:

- PM (particulate matter)
- NOx
- SO<sub>2</sub>

However, the ACMP recognises the importance of also addressing other significant pollutants, namely emissions of CO<sub>2</sub>, selected metals and organic emissions.

These emissions are released at different stages of the process. The exhaust gases from the rotary kilns used for manufacturing clinker produces many by-products including  $SO_2$ ,  $SO_3$ , carbon monoxide (CO), and particulates. Depending on the limestone quarry from which the base material is taken, there can be volatile organic compounds (VOCs), some of which are high-odour organic sulphur or nitrogen compounds.

The members of the ACMP have been able to achieve a reduction in the emissions of key pollutants, over the previous three decades, largely as a result of modernization of cement plants with improved technology and design. This has been achieved through retrofitting older plants with abatement technology and by building new, cleaner plants.

	2007	2008	2009	2010
Average Water Withdrawn	4252410	4381195	109755,6667	88374,83333
Includes Afris	am Lafarno	and NPC		

Today, the SA cement industry accounts for only a minor proportion of these emissions in South Africa. When we compare our NOx emissions to the mining industry, our emissions make up around 12%, indicating that we are not significant emitters. The same is applicable for our  $SO_2$  emissions. We will endeavour to continue to monitor and report our emissions.

#### **Our Stakeholder Engagement**

The ACMP acknowledges the importance of properly identifying and engaging with our stakeholders. As a representative of major cement manufacturing companies, it is imperative that we address the issues and concerns of these stakeholders.

The ACMP stakeholders were identified by the ACMP Executive through an inclusive approach, which involved identifying all key government departments, customers, suppliers, civil society, industry associations and organisations. Their concerns and issues as well as how they would be engaged were also identified. This stakeholder engagement process was the first of its kind for the ACMP and we intend to regularly review the list of stakeholders, prioritise issues, as well as refine our dialogue with them.

The stakeholders identified in this report are particular to the ACMP, although many are common to the individual member companies. The stakeholders, their concerns and the method of engagement are described in the table below (not necessarily in order of priority).

Stakeholder	Issue/Concerns	Method and frequency of engagement
Government		
Department of Water and Environment	Registration of water licenses for water discharge.	Regular informal
Department of Trade and Industry	General business issues e.g. transport	Industry task team
Department of Labour	Inconsistency in communications and decisions	Informal limited contact
Department of Energy	Energy Efficiency. Lengthy time for mining licenses	Regular informal
Treasury	Royalty Act	
Carbon fiscal instruments	Proactive and reactive	
Associations and Organisations		
Chamber of Mines	Water licences, health & safety compliance	Informal regular contact
Cement and Concrete Institute	General issues facing the cement industry	Regular formal contact
Business Unity South Africa (BUSA)	Law reform	Not a member
National Business Initiative	Energy efficiency accord	Signatory
The Aggregate and Sand Producers		
Association of Southern Africa(ASPASA)	Skills development	Member of CLAS
North West Province Air Pollution		
Control Forum (NAPCOF)	Air pollution	Sit on the forum
Parastatals	·	
Transnet	Transportation of goods by rail instead of road as	Limited
	is minimising the CO2 impact	
South Africa Bureau of	Code of practices and standards	Limited
Standards (SABS)		
Eskom	Energy Efficiency	Task team member
NGO/Civil Society		
Groundwork, World Wide Fund (WWF)	Air Quality	Limited informal contact
Energy use		
Legal Research Centre	Air Quality	
Energy use	Limited informal contact	

# **Our Future Projects**

There is an exciting future ahead for the ACMP. We see the next year as an opportunity to implement and act on many of the issues and concerns we have addressed in this report. The leadership offered by ACMP has brought forth tackling the sustainability issues affecting the cement industry.

In order to achieve this, the ACMP has identified projects to be implemented. These projects will be administered by our Sustainability Subcommittee which will replace the previous committees. We believe that combining the committees will result in a more focused approach to the projects and activities we aim to address. We acknowledge the need to have members with diverse backgrounds covering the different aspects of sustainability – environmental, health and safety, social and economic – in order to adequately address sustainability holistically.

Project	Detail	Timeline
Reporting	The ACMP aims to develop standard reporting templates to collect and collate	
	data from the members relating to the national issues identified	Ongoing
Reporting	We will work towards publishing our report on a 3 year cycle while maintaining annual records	Ongoing
Reporting	Encouraging and supporting our member firms in obtaining external, assurance	2012
Health and Safety	HIV/Aids is a concern for cement industry and the ACMP aims to assist members with implementing wellness programmes to ensure the good health and care of their employees.	2011-2013
Health and Safety	As noted in this year's report, contractor safety is a major concern for our members. The ACMP will therefore develop projects to address this through training and raising awareness.	2012-2014
Energy Efficiency	As a signatory of the Energy Efficiency Accord we are committed to assisting the cement industry in reducing energy consumption by exploring innovative ways to improve efficiencies and move towards alternative fuel and energy sources.  We will use international and national guidelines for the cement industry in doing this.	2012
Climate Change	The ACMP aims to use the guidelines for reduction in CO2 provided for by the WBCSD CSI	
Ongoing Skills Development	The skills shortage has been highlighted as an area of concern. The ACMP is involved in training and skills development and aims to continue this commitment.	
Stakeholder Engagement	The ACMP have begun the process of formalising our stakeholder engagement process. We intend to continue to developing this process inline with international guidelines	Ongoing
Risk Management	In the coming year the ACMP aims to develop our risk management process and improve on the steps taken in this reporting period.	Ongoing



# **Our Future Plans for Reporting**

This report marks the commencement of a reporting journey that we hope will grow and develop in the coming years. The areas we aim to improve on are:

- Publishing our report every three years but collating data on an annual basis.
- Improving compliance with reporting guidelines and standards such as the GRI and AA1000.
   We will work towards a GRI disclosure level of B and consider relevant GRI sector supplements in compiling our report.
- Improving our stakeholder engagement process for identifying and prioritising our key issues stakeholders and including responses to their concerns in future reports
- Collecting and collate performance data on Key Performance Indicators for the issues identified in this report as well as the WBCSD-CSI issues not reported on.
- Ensuring independent assurance on reported indicators.

#### Acknowledgement

The ACMP would like to thank KPMG, Johannesburg for facilitating discussion with members in the identification of the material risks identified as well as assisting during the drafting of this report.



