



ASSOCIATION OF CEMENTITIOUS MATERIAL PRODUCERS

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20<sup>th</sup> October, 2011

Portfolio Committee on Water and Environmental  
Committee Section  
Parliament of RSA,  
PO Box 15,  
Cape Town  
8000.

*Per e-mail: [tmadubela@parliament.gov.za](mailto:tmadubela@parliament.gov.za)*

**Attention: Ms Tyhileka Madubela**

**NATIONAL CLIMATE CHANGE RESPONSE WHITE PAPER 2010 dated OCTOBER 2011**

The Association of Cementitious Material Producers (ACMP) recognizes the need for a ***predictable and gradual transition to a Climate Change Resilient Economy*** in South Africa and supports the country's national and international climate change objectives and obligations, recognising that climate change poses a global threat. An effective global solution requires action from all countries that must be aligned with agreed global and national objectives.

The global solution is, however, some time away. The economic crisis has shifted national priorities worldwide towards the recovery of economic activity and has resulted in wide resistance to an international price on carbon. Also, there remains significant disagreement between developed and developing nations about the respective responsibilities on accepting carbon reduction targets.

To this end, the ACMP acknowledges that South Africa needs to reduce its carbon emissions, as part of global efforts to combat climate change. To achieve this, the country must begin to restructure its economy for lower emissions in order to remain competitive in a future, carbon-constrained, world economy.

Further, the ACMP supports the published National climate change response White paper for the Republic of South Africa, which will certainly provide a useful framework to inform current and future climate change strategies and support compliance to the country's international obligations under the UNFCCC process. However, it must be

noted that the White paper has some substantive variances to the Green paper. This is particularly in reference to the inclusion of carbon budgets (CB). Thus, the opinion is that interaction and consultation with relevant stakeholders should have been conducted prior to publication.

Achieving South Africa's commitments under the Copenhagen Accord will be challenging, although South Africa has demonstrated high ambitions for sustainable development, and key policy priorities remain unclear and conflicting. Although the white paper mentions these, it is unclear on specific strategies to resolve these.

It is noted that the White paper has kept in mind the ***country's developmental goals of job creation, poverty alleviation and equity to inform future policy and implementation plans on climate change.***

The ACMP recommends that the government embark on a comprehensive Mitigation Action Cost Curve (MAC) development process to determine what the country can and cannot afford in terms of climate change action.

This MAC study will then inform a comprehensive policy development process.

It is our view that this process would provide a sound foundation for integrity future sustainability.

As a sector, it was noted that there is a Waste Management Flagship Programme. Mention was made of waste to energy opportunities which was encouraging to the sector but the experience on the ground is that there are barriers and legislative delays in obtaining approvals for such.

The carbon pricing and carbon budget approach reflected would ensure future carbon cost transparency. Further, the proposed gradual change in carbon price will give the economy time to adjust. However, financial cost or other implications of not keeping within the CBs was not addressed in the paper. These implications could have impacts on sector competitiveness, especially if border tax adjustments or the like are not made on imports. Furthermore, the unknowns around CBs, especially around how these would be calculated is a concern. The ACMP also recognizes the inclusion of the sectoral approach in the White paper.

### **General comments**

#### **1. General:**

The paper provides a sound overview of the broad issues required to address climate change in South Africa and the general approach is supported by the ACMP. It is comforting to note that the White Paper recognises that policies and programmes may already be in place. The challenge to mainstream the proposed plans into these policies and programmes must be addressed to avoid unnecessary burden to both government and industry. Governance has been addressed to some extent and it is envisaged that improved implementation or mainstreaming climate change response during implementation will be overseen and facilitated.

#### **2. Developmental objectives of South Africa:**

The ACMP endorses the key objective included in the White paper that encompasses the economic, social and ecological pillars of sustainable development:

“recognising that a robust and sustainable economy and a healthy society depends on the services that well-functioning ecosystems provide, and that enhancing the sustainability of the economic, social and ecological services is an integral component of an effective and efficient climate change response “

The development of sector or industry plans referred to in the White paper must thus place increased focus on the above factors and be reviewed accordingly. Emphasis must be placed to synergise the different projects underway. Examples of such projects include:

- Addressing the millennium development goals
- National strategy on sustainable development
- Country sustainable reporting
- Long term mitigation strategy (LTMS): It is to be noted that the current job creation thrust has not been aligned to the projects identified for the LTMS.

### **3. Public participation:**

While opportunity was afforded to comment on the Green Paper, an adequate public comment process should have been considered to finalise the White paper by first publishing a draft White paper, especially when considering the extent of the changes to the original Green Paper. However, the ACMP appreciates the commitment expressed in the White Paper to partnership with business and industry as set out in section 10.3.1.

### **4. Partnering with stakeholders:10.3**

Climate change is an issue for all South Africans and it is heartening to note that government explicitly confirmed that the objectives set out in this White Paper can only be fully realised with the active participation of all stakeholders. The government is committed to substantive engagement and, where appropriate, partnerships with stakeholders from industry, business, labour and civil society in a manner that enhances coordination.

However the ACMP is concerned with the lack of interaction and consultation that preceded the publication of this white paper

### **5. GHG emissions inventory**

The ACMP supports the obligatory reporting of emissions data and energy use by energy carriers above the threshold specified. However, it is important to note that the web based system must maintain confidentiality and comply with the confidential regulated system requirements (such as defined by the Competition Commission) and should be accredited accordingly.

### **6. GHG trajectory:**

The ACMP is concerned that actual figures are included to inform the benchmark trajectory range. During interactions between government and business, it was highlighted that there were errors contained in these numbers. In addition to this it is

to be noted that the methodology for determining a BAU baseline does not seem to be well defined, and as such allows much room for individual interpretation. This in itself will allow for a very wide range of possible BAU outcomes. It is recognized that a robust BAU methodology defined in the same way as for example CDM baseline methodologies may be complex to develop. That said, it is safe to say that it is inherently very difficult to define a BAU due to the complexities involved and hence BAU would remain indicative rather than an exact determination. To take international examples, carbon trading mechanisms and methodologies use predefined benchmarks and not BAU trajectories for carbon emission reduction quantification for carbon crediting purposes. It is therefore, recommended that the determination of the final benchmark trajectory of each sector should be informed by the carbon budgeting process for each predefined sector separately. It must also be noted that when defining the benchmark trajectory that carbon reduction efforts already / historically implemented must be taken cognisance of

It should also be noted that different sectors may have different relative benchmark trajectories based on their current international levels of best practice emissions performance but that the combination of all sectoral trajectories would naturally make up the national picture. Finally, it must be noted that for this sector different benchmarks can be utilised, It is thus important that the relevant Departments engage with the ACMP to confirm the appropriate benchmark..

## **7. Sectoral approach to mitigation and carbon budgets:**

The ACMP welcomes the approach to Identifying desired sectoral mitigation contributions (6.1.2) and appreciates that Carbon Budgets for significant GHG emitting *sectors and/or sub-sectors* would be assessed at sector level (6.1.3). It is further noted that:

- a. The initial Carbon Budgets for significant GHG emitting sectors and/or sub-sectors will be drawn up and adopted within two years of the publication of this policy and revised as required based on monitoring and evaluation results, technological advances or new science, evidence and information.
- b. A mechanism and process to translate the Carbon Budgets for each relevant sector and/or sub-sector into company level desired emission reduction outcomes will be developed and implemented within three years of the publication of this policy for companies above a minimum emissions threshold.

Details of the determination methodology of individual company carbon budgets are sketchy and need to be better defined due to the great impact they can make.

## **8. The Climate Change Response Flagship Programme:**

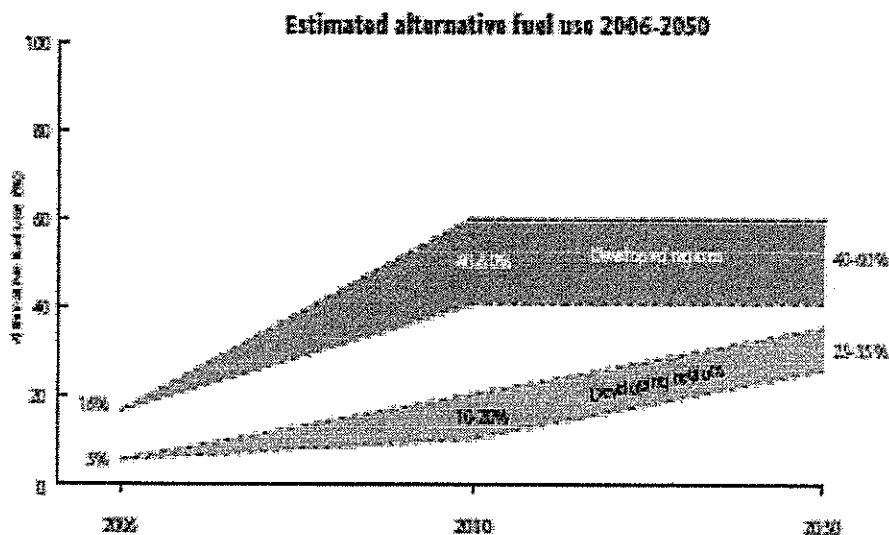
### **a. Climate Change Response Public Works Flagship Programme**

The range of programmes reflected is appreciated. However, the ACMP is of the view that there may be a case to consider the introduction of a "*Working for waste*" programme" should there be any further delays in the implementation of the waste tyre implementation plans long due in this country. While it is

recognized that there is a waste management flagship programme the scope of the programme is quite different as the Waste Management Flagship Programme focuses mainly only high technology interventions rather than job creation.

#### b. The Waste Management Flagship Programme

The ACMP is disappointed that recovery of energy and materials from waste has not been referred to although the National waste management strategy (NWMS) has embraced this as a key priority and Government has also developed appropriate legislation and policies to give effect to this. This is once again indicative of misalignment between different planning processes and requirement of a range of plans for different focus areas. There appears to be a focus mainly on methane management giving an impression that the programme would prioritise municipal landfills. As stated above the case for waste recovery in cement kilns is well understood internationally as can be seen from Figure 1 below.

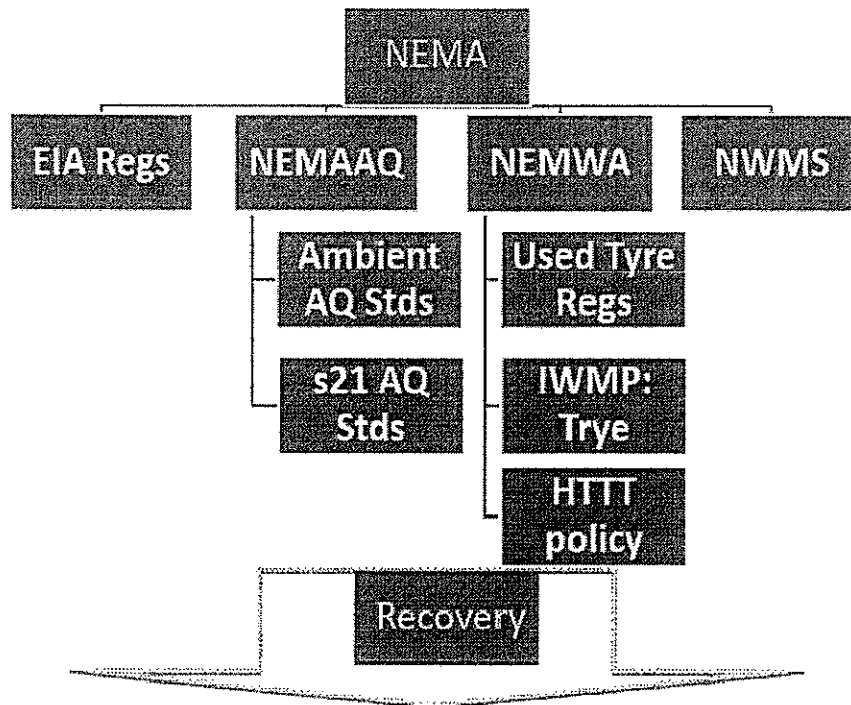


SA has an opportunity and potential to use significant Afs in the future

Source: Cembureau: World Business Council for Sustainable Development, 2006

**Fig.1 Lag by developing countries to embrace international best practice**

However, it is to be noted that the regulatory systems are already in place but requires efficient decision making for implementation. Figure 2 below summarized the regulatory regime in place.



**Fig. 2 Comprehensive regulatory regime in place to support implementation**

## 9. Business and Industry

Industry has an important contribution to make in reducing GHG emissions, increasing energy efficiency, developing and implementing climate adaptation and mitigation plans and working in partnership with government to achieve the overall policy objectives. The ACMP is committed with initiatives to engage international counterparts in the climate change debate and so ensure that the interests of business in the developing world are well understood.

The White Paper requires the development of sector and industry plans and it is to be noted that the ACMP would support the development of plans for the cement sector.

The ACMP is of the view that **Industry plans and targets** would provide certainty to both civil society and business with regards to plans, targets and timeframes. However, as stated above these plans must place appropriate focus on the developmental objectives of the country and allow for mainstreaming in existing plans to avoid duplication. For example, when air quality management plans are submitted, matters related to climate change should be included and recognised as

part of the plan referred to in the White Paper thus avoiding the submission of another plan.

## 10. Energy vs electricity.

### The Energy Efficiency and Energy Demand Management Flagship Programme (8.4)

- a. As part of the Energy Efficiency and Energy Demand Management Flagship Programme, the ACMP welcomes that the Department of Energy (DoE) will continue to develop and facilitate an aggressive energy efficiency programme in industry, building on the experience of Eskom's Demand Side Management programme and the Department of Trade and Industry (DTI)'s National Cleaner Production Centre, and **covering non-electricity energy efficiency** as well.
- b. The ACMP supports the creation of a local manufacturing industry for renewable energy technologies, such as the local manufacturing of wind towers.
- c. The ACMP also appreciates the recognition given to energy efficiency as a renewable energy technology to be employed in the generation of so called "nega-watts"
- d. It is recommended that the programme also champion the use of alternate fuels and resources in cement kilns as the country is currently lagging behind when compared internationally.
- e. Furthermore the ACMP recommends that the programme also champions Waste Heat Recovery from for example kilns

## 11. Transport

While there has been reference to promotion to road to rail transport, it is disappointing to note that there has been no emphasis that those sectors identified to report on GHG and energy emissions be prioritised. The importance of the energy and transport sector to the economy as a whole must be amplified. There must be increased emphasis on commitment to transport of goods by rail. This focus area is at present important to ensure ease of business as well as a key indicator to inform sustainable development as well as carbon budgets. Currently many businesses rely on road freight due to its access and reliability.

## 12. Fiscal policy

### a. Carbon pricing :

Any Carbon price should, over time be equivalent to the marginal external damage costs of GHGs to affect appropriate incentives.

However, in the absence of an international climate change agreement and therefore a global emissions pricing system, a partial, rather than full, internalization of the externality will be considered as an interim measure.

### b. Carbon budget (CB):

This must be defined to ensure consistency in interpretation. There has been no mention of carbon budgets prior to the publication of this White paper, and it is unclear on the specifics of the proposed carbon budget.

The ACMP interprets the carbon budget approach as follows:

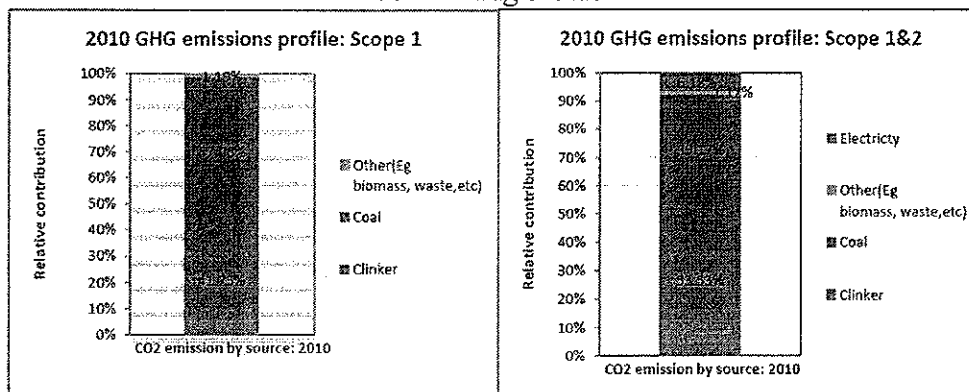
- There will be provision for flexibility and least-cost mechanisms for companies at sectors and/or sub-sectors level to achieve desired emission reduction outcomes
- The lowest-cost options would include consideration of offset and other types of market-based mechanisms to achieve the desired emission reduction outcomes consistent with the benchmark national GHG emissions range trajectory per sector individually.
- The CB process will be informed by a combination of mitigation actions at the least cost to, sustainable development benefits for-the relevant sector, and the agreed upon benchmark National GHG Emissions Trajectory Range per sector individually.
- There will be sector engagement when defining the benchmark for each sector

It needs to be noted that the National GHG emissions trajectory is a composite trajectory for the country and that individual sector contributions relative to the BAU trajectory can, and most likely will, be relatively different.

## 13. Implications of the White Paper to the cement sector

The cement sector under the umbrella of the Association of Cementitious Material Producers (ACMP) has made significant progress with regards to environmental management and has taken into account the principles of sustainable development including a response to climate change. It is to be noted that the members have committed to the ACMP environmental policy as well as the climate change policy.

The ACMP also has a good understanding of the GHG source emissions profile and results for 2010 is reflected above in Fig.3 below



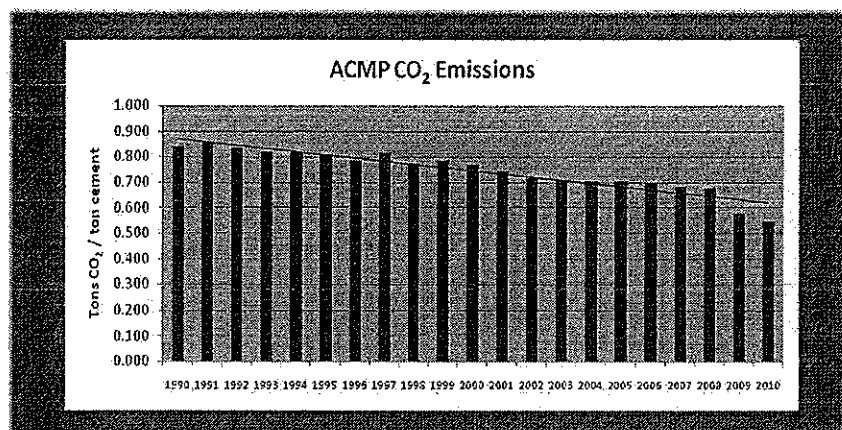


**Fig. 3. CO<sub>2</sub> source emission profile in the cement industry**

In the context of climate change, levers have been identified to address mitigation and significant progress has been made. These levers include the following:

- **Thermal & Electric Efficiency** – deployment of new technologies in new cement plants & retrofit of energy efficiency equipment and improvement in operational efficiencies
- **Alternative Fuels (AF)**– Less use of carbon-intensive fossil fuels and more AF & Biomass
- **Clinker Substitution** – substituting carbon-intensive with other lower carbon, materials with cementitious properties
- **Carbon capture and storage (CCS)** – capturing CO<sub>2</sub> before it is released into the atmosphere & storing it securely (Long-Term)
- Utilisation of Waste Heat to generate electrical energy

The ACMP publishes its GHG inventory for the sector annually since 1990 and voluntarily provides the data to the Department of Environmental Affairs to inform the national GHG inventory.



**Fig. 4 CO<sub>2</sub> emission reduction trends in the cement sector in South Africa**

An important scope of work not undertaken is the use of alternative fuels (AF) and resources due to the delays in the approval of the tyre waste management plan submitted by the tyre industry. Once approved, used tyres would reduce the use of coal as an energy source.

## **RECOMMENDATIONS:**

### **1. Recognition of previous and current effort:**

The sector and industry plans, and Carbon Budgets must include recognition for the contributions made to date by various sectors to reducing greenhouse gas emissions. In the case of the cement sector, the ACMP as signatory to the Energy Accord have made significant strides towards implementing energy efficiency

resulting in **little** opportunities for further efficiency interventions. Furthermore South Africa is an international leader in terms of producing extended cement. South African **emission levels per ton for cement** are thus much lower than international averages.

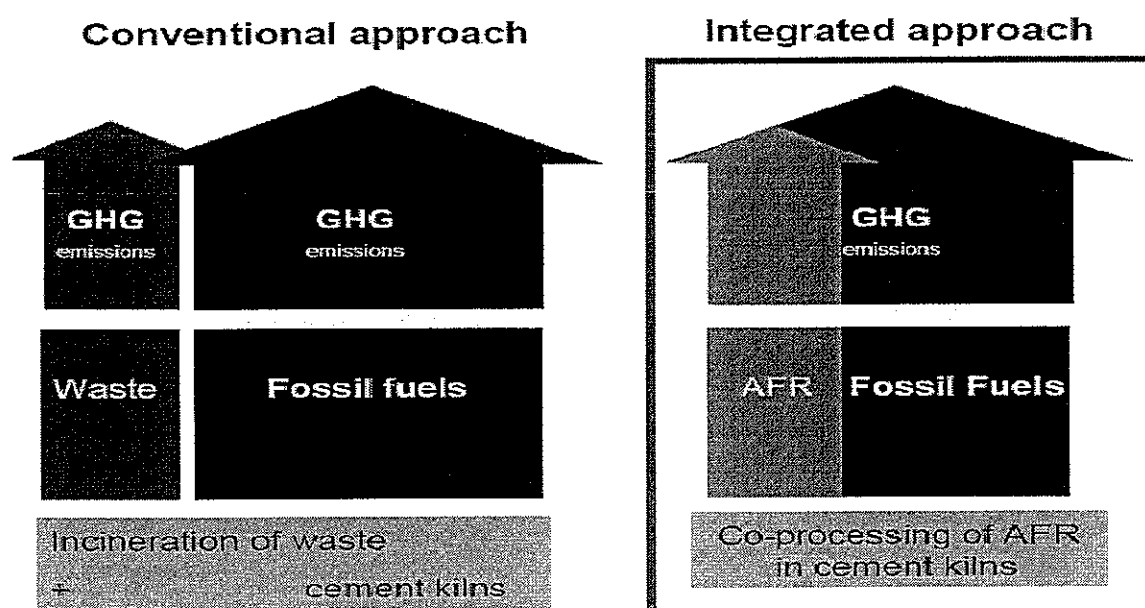
## 2. Energy Security

Energy Security is a top priority for a Carbon Resilient South African Economy and is key to attracting investment opportunities. Targets for energy efficiency, carbon emissions and energy usage need to be implemented taking into account baseline values that allow industrial companies to be recognized for previous carbon reduction effort.

## 3. Energy:

The use of alternate fuels and resources must be considered as a new flagship programme. In the case of the cement sector this especially needs to focus on the replacement of clinker by other cementitious materials already being produced by other industry sectors including, Granulated Blast furnace Slag and Fly Ash to name but a few.

The use of biomass alternatives to coal as a fuel needs to be provided for in government policies in a more streamlined fashion.. The rationale and benefits is summarised in the Figure 5 below:



**Fig. 6. Benefits of co-processing: save fossil fuel and avoid incinerator emissions**

## 4. The Transport Flagship Programme:

The importance of and transport sector to the economy as a whole must be amplified. There must be increased emphasis on commitment to transport of goods

by rail. This focus area is at present important to ensure ease of business. Currently many businesses rely on road freight due to its access and reliability. Furthermore, the planned rail re-capitalisation programme is considered an important component of this Flagship Programme in so far as it will facilitate both passenger modal shifts and the shift of freight from road to rail: disappointing –enabler to industry and sector specific . It is recommended that those sectors identified to report on GHG and energy emissions be prioritised for rail transport support.

#### **5. Fiscal policy:**

The relationship between the GHG trajectory, carbon pricing, and carbon budgets must be urgently clarified and the baseline year must be confirmed unambiguously.

#### **6. Public participation and engagement:**

The ACMP welcomes the timeframes set for implementation and recommends that there be sufficient opportunity for engagement.

#### **7. Business as usual**

The baseline year must be confirmed unambiguously. The ACMP understands that this will be based on the projected trajectory informed by business as usual. There must be further clarity on the basis of determining what the deviation from that trajectory means at a sectoral level. Engagement with relevant sectors is recommended. In the case of cement production, a large portion of the CO<sub>2</sub> emissions are inherently related to the raw materials and chemical reaction for the process which cannot be minimised or averted and hence the sector must be considered accordingly to focus on reductions of the CO<sub>2</sub> related to the energy generation portion. Any targets set to reduce CO<sub>2</sub> emissions must be sensitive to the fact that production capacity will need to be reduced with potential consequences to the construction industry and to infrastructure development in the country and hence job protection/creation.

#### **8. Benchmark national GHG trajectory**

It is noted that provision has been made for potential reviewing of trajectory ranges over time. No provision has been made for the review of the BAU trajectory, and thus it is recommended that allowance be indeed made for such a review over time as and when new information comes to light that will improve the accuracy and validity of the BAU trajectory range.

#### **9. Sector specific measures:**

The White Paper requires the development of sector and industry plans and it engagement with relevant sectors must be initiated urgently.

## 10. Technology Transfer:

The White Paper needs to specify the requirement of technology transfer from more developed nations to South Africa as mentioned in the National Communication and the government needs to push for this transfer to happen to assist local mitigation strategies.

## 11. IMPLICATIONS TO OTHER STRATEGIC PRIORITIES:

The ACMP members are able to support various non sector policies and the 2 examples cited below is noteworthy:

- a. **National Disaster Management Council** will be responsible for ensuring that the National Framework for Disaster Risk Management provides clear guidance across all spheres and sectors of government for managing climate change-related risk and for ensuring that an effective communications strategy is in place for early warnings to vulnerable communities with respect to extreme weather events such as flooding and droughts.

In this context it is important that the use of alternate fuels and resources be rolled out urgently. While it is not the intention of ACMP members to introduce biological materials in the cement kilns there is case for preparedness should there be a disease outbreak such as the recent mad cow disease in Europe. The cement sector played a critical role in disease management in this instance and relied on well performing cement kilns and an understanding of the use of alternate materials.

- b. **Policy and regulatory alignment**

The ACMP recommends:

- 1) Prioritisation of interventions already envisaged by national policies, legislation or strategies that have climate change co-benefits, particularly those that also contribute towards the national priorities of job creation, poverty alleviation or have other positive socio-economic benefits.
- 2) Review of existing national policies, legislation or strategies, with a view to optimising and maximising the climate change co-benefits of their interventions.
- 3) Integrate into the relevant existing or new policies, legislation or strategies those climate change response interventions that stimulate new economic activities as well as those that improve the efficiency and competitive advantage of existing activities.

- c. **Integrated planning**

The ACMP recommends that government prioritise the mainstreaming of climate change considerations and responses into all relevant sectors, national, provincial and local planning regimes such as, but not limited to, the Industrial

Policy Action Plan, Integrated Resource Plan for Electricity Generation, Provincial Growth and Development Plans, and Integrated Development Plans (IDP). The IDP must include sound waste management practice which would encompass waste recovery of selected materials such as used tyres in cement kilns.

## **12. National developmental goals:**

All mitigation and adaptation plans must be reviewed in the context of the developmental goals of South Africa and take into account the sustainable development criteria.

## **13. Monitoring and evaluation:**

Any targets set to reduce CO<sub>2</sub> emissions must be sensitive to the fact that production capacity will need to be reduced with potential consequences to the construction industry and to infrastructure development in the country and hence job protection/creation. Hence the benchmark trajectory approach must be considered at sector level.

Government support and facilitation to ensure ease to undertake business, and **overcome** regulatory barriers.

## **14. Strategic Priorities: 4.2**

- a. **Sectoral responses** – prioritise, in accordance with the provisions of this policy, the requirement for all key actors, organisations or participants in relevant sectors or sub-sectors to prepare, submit, implement, monitor and report the implementation of detailed climate change response strategies and action plans that clearly articulate their roles, responsibilities, policies, measures, and interventions or actions to contribute to the achievement of the National Climate Change Response Objective in a measurable way
- b. **Policy and regulatory alignment** – firstly, prioritise interventions already envisaged by national policies, legislation or strategies that have climate change co-benefits, particularly those that also contribute towards the national priorities of job creation, poverty alleviation or have other positive socio-economic benefits. Secondly, review existing national policies, legislation or strategies, with a view to optimising and maximising the climate change co-benefits of their interventions. Thirdly, integrate into the relevant existing or new policies, legislation or strategies those climate change response interventions that stimulate new economic activities as well as those that improve the efficiency and competitive advantage of existing activities.
- c. **Integrated planning** – prioritise the mainstreaming of climate change considerations and responses into all relevant sector, national, provincial and local planning regimes such as, but not limited to, the Industrial Policy Action Plan, Integrated Resource Plan for Electricity Generation, Provincial Growth and Development Plans, and Integrated Development Plans

## **15. Institutional arrangements**

The ACMP appreciates that various governance structures have been motivated in the White Paper. It is recommended that the IGCCC will also ensure ease of doing business and facilitate efficient decision making with regards to AIAs and other related policy matters.

Please feel free to contact this office should you require any clarification. It would be highly appreciated if the ACMP could be included on your database as a key stakeholder for all future consultation processes with regards to environmental climate change. This is particularly important as the cement industry has been identified in the national inventory as a sector that requires attention.

**Yours Faithfully**  
**Dr D.B.K. Rama**

### **Executive Director**

Association of Cementitious Material Producers

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