



Mineral Products Association

# Building on progress ... facing the future

Summary Sustainable Development Report 2010

Our industry is central to UK sustainability. The use of essential mineral products enables higher standards of living and quality of life through improvements to the natural and built environment. We support over 60,000 jobs - a high proportion of which are in rural areas - and create new habitats as a result of our restoration work. But we also consume resources and energy, emit carbon and have impacts on the natural environment. Our challenge is to work with Government, local communities and others to continue to meet society's demands and needs while minimising such impacts.

## Foreword

Industry sales fell very significantly in 2009 as the full impact of the recession hit construction markets. There have been some comparative improvements in 2010 but the 21% cuts recently announced to public investment point to further declines in 2011. In spite of these very difficult market conditions the industry has continued to invest in sustainability. Progress is particularly notable in demonstrating responsible sourcing to certified standards, continuing the reduction in emissions from cement manufacture and, most important of all, eliminating the potential for accidents amongst our employees.

There is also now a growing sense of excitement about the industry's potential to deliver sustainable solutions by not just contributing to targets but to being the prime driver in many areas. These include the sector's work on improving biodiversity and providing materials that will significantly reduce carbon emissions from buildings.

There are inevitably some areas in which our capacity to improve our sustainability is being frustrated. A more effective mineral planning system is particularly essential if we are to maintain the steady supply of products that society needs. We also have continuing concerns about the cumulative impacts of both regulation and taxation. Our cement members are increasingly concerned by the myriad of market measures in Europe and the UK to reduce carbon emissions.

We hope you will regard what we have achieved in the past year as good progress. At the same time, we recognise that we still have much to do.

**Nigel Jackson** Chief executive

## Summary data

2009

2008

### SUSTAINABLE CONSUMPTION & PRODUCTION

|  |                    |                    |
|--|--------------------|--------------------|
| Aggregates production (primary) GB               | 141m t             | 187m t             |
| Recycled/secondary materials GB                  | 56.5m t            | 68.5m t            |
| Asphalt sales GB                                 | 20.5m t            | 25m t              |
| Ready-mixed concrete sales GB                    | 14.4m <sup>3</sup> | 20.1m <sup>3</sup> |
| Cement - domestic sales GB                       | 7.6m t             | 10.1m t            |
| Cementitious materials GB                        | 10.3m t            | 13.7m t            |
| Per capita production aggregates (GB/Europe)     | 3.3t/na            | 4.3t/6.3t          |
| Per capita production cement (UK/Europe)         | 150kg/na           | 203kg/504kg        |
| Aggregate sites with certified EMS (% of survey) | 81%                | 77%                |
| Cement sites with certified EMS                  | 100%               | 100%               |

### CLIMATE CHANGE & ENERGY

|  |        |         |
|--|--------|---------|
| CO <sub>2</sub> emissions directly from cement works (kg/tonne)      | 731.8  | 776.8   |
| CO <sub>2</sub> emissions from crushed rock (kg/tonne)               | 5.27   | 4.32    |
| CO <sub>2</sub> emissions from sand and gravel - land won (kg/tonne) | 2.60   | 4.28    |
| CO <sub>2</sub> emissions from asphalt production (kg/tonne)         | 30.2   | 34.4    |
| CO <sub>2</sub> emissions from ready-mixed concrete prod (kg/tonne)  | 0.97   | 0.95    |
| Share of sales moved by rail (aggregates)                            | 9.6%   | 7.0%    |
| Share of sales moved by rail (cement)                                | 21.1%  | 14.1%   |
| Average delivery distance (aggregates)                               | 41.9km | 38km    |
| Average road load (aggregates)                                       | 21.4t  | 20.9t   |
| Marine dredged aggregates landings for construction use              | 9.6m t | 12.6m t |

### NATURAL RESOURCES & ENHANCING THE ENVIRONMENT

|   |                      |                      |
|---|----------------------|----------------------|
| Trees planted   | 313,238              | 129,799              |
| Hedgerows planted   | 14.36km              | 9.05km               |
| Waste recovered as raw materials and fuels by cement industry | 1.28m t              | 1.41m t              |
| Archaeology - land investigated pre-planning permission       | 473ha                | 319ha                |
| Archaeology - land investigated post-planning permission      | 302ha                | 339ha                |
| Proportion of UK land area being quarried (aggregates)        | 0.14%                | 0.13%                |
| Ratio of land restored to land prepared for quarrying         | 1:0.8                | 1:0.7                |
| Area of seabed dredged  | 123.6km <sup>2</sup> | 137.9km <sup>2</sup> |

### CREATING SUSTAINABLE COMMUNITIES

|  |        |        |
|--|--------|--------|
| Number of reportable injuries (aggregates)               | 138    | 137    |
| Lost time injuries per million hours worked              | 3.59   | 3.30   |
| Employment - direct by MPA members (aggregates)          | 19,522 | 23,857 |
| Employment - direct by MPA members (cement)              | 2,459  | 3,047  |
| Number of recorded complaints (aggregates)               | 385    | 524    |
| Number of community liaison groups (aggregates)          | 283    | 240    |
| Liaison group meetings (cement)                          | 38     | 41     |
| Recorded visitors to aggregates sites, cement kiln sites | 18,390 | 21,075 |

# Highlights

- MPA members achieved the five-year *Hard Target* of **halving** reportable injuries by 2009. The actual reduction since 1999 is **83%**
- The proportion of aggregate, asphalt and ready-mixed concrete sites covered by certified environmental management systems increased to **81%, 84% and 80%** respectively. **100%** of cement plants are certified to EMS
- The cement industry recorded a **58%** reduction in carbon dioxide emissions between 1990 and 2009
- Use of aggregates (including primary and recycled/secondary materials) in GB per head of population reduced from **4.3** tonnes to **3.3** tonnes in 2009
- Use of recycled aggregates further increased to achieve a market share of **28%** compared with 10% in 2000
- The industry planted over **313,000** trees and **14.4** kilometres of hedgerows in 2009 compared with 129,000 trees and 9 kilometres of hedgerows the previous year
- Complaints recorded by aggregates operations fell from **524** to **385** in 2009, while the number of liaison groups rose from **240** to **283**

# Priorities

## HEALTH & SAFETY



**ACHIEVEMENT:** MPA members exceeded the *Hard Target* for the five years to 2009

by more than halving the number of employees' reportable injuries. The overall reduction in reportable injuries between 1999 and 2009 was 83%. We have put in place a series of best practice sharing initiatives, including our award scheme, which in 2009-10 attracted nearly 350 entries.

**ACTION NEEDED:** Our ultimate aim remains "zero harm" and our new target is to halve our lost-time incidents frequency rate between 2009 and 2014. We are looking at initiatives to support further improvements in the industry and will also promote our *Drivers Skills* initiative to improve awareness of hazards associated with loading and delivering our materials.

## SUSTAINABLE PRODUCTS



**ACHIEVEMENT:** Despite major reductions in sales in 2009, we are continuing to

focus on improving the sustainability performance of our products. Effective design of buildings using concrete substantially reduces long-term carbon emissions and we have developed with our partners a robust methodology for measuring the carbon emissions associated with asphalt use in highways projects.

The share of recycled and secondary materials in the GB aggregates market is the highest in Europe and alternative materials also make a major contribution to the cementitious market. The proportion of industry sites with certified environmental management systems has continued to increase and emissions to air by the cement industry have declined substantially over the past decade.

**ACTION NEEDED:** Our aim is to help ensure that sustainability assessments of buildings and structures are both comprehensive and consistent in order to achieve real gains. We also want to contribute to the improved sustainability

of existing as well as new buildings. We are pressing for a mineral planning system that ensures continued access to the reserves the nation needs plus a regulatory regime that is proportionate and sustains UK competitiveness.

## CLIMATE CHANGE



**ACHIEVEMENT:** The cement industry recorded a 58% reduction in carbon dioxide emissions

between 1990 and 2009. This reduction is partly due to lower production volumes but also reflects major efficiencies and increasing use of non-fossil fuels. MPA and member companies have been working closely with the Carbon Trust to embed carbon reduction in the aggregates sector and a number of asphalt demonstration projects have been initiated.

**ACTION NEEDED:** The development of carbon capture and storage technology is critical to the cement sector's long-term ability to reduce emissions arising from the chemical reaction of heating calcium carbonate. MPA is developing a series of resources to help members in the aggregates and associated sectors to minimise their carbon emissions.

## BIODIVERSITY



**ACHIEVEMENT:** We have a legacy of high quality restoration of minerals sites. Building on this legacy, we are

working with the RSPB, Natural England and other bodies to further unlock the great potential that exists to use our sites to enhance biodiversity across the UK. Positive action by the minerals industry has resulted in creation of what the *Nature After Minerals* initiative estimates adds up to 1,800 hectares of new BAP priority habitats. We have launched a new award scheme sponsored by Natural England to recognise and highlight the industry's contribution to biodiversity.

**ACTION NEEDED:** MPA will be launching a substantial new biodiversity strategy to support further progress. Research indicates that mineral sites could meet 100% of nine out of 11 priority biodiversity habitats. To support progress, Government must sustain the contribution from the Aggregates Levy Sustainability Fund.

# Sustainability in action



## PRODUCT SOURCING

The 2012 target set by the Government in its Sustainable Construction Strategy is for at least 25% of construction materials to come from suppliers with responsible sourcing certification. The ready-mixed concrete industry has responded quickly to this challenge and nearly 90% of supply is now certified as responsibly sourced. The industry has published comprehensive guidance to facilitate the certification of concrete and associated products to the standard.



## ALTERNATIVE FUELS

The use of waste-derived alternative fuels has had a dramatic effect on the cement industry's carbon emissions which have reduced by 58% between 1990 and 2009. Such fuels consist of biomass which is rated as carbon neutral under the EU Emissions Trading System. The range of biomass fuels now in use across the UK includes processed household refuse, scrap tyres, processed sewage sludge and meat and bone meal.



## HABITAT CREATION

Our members are making substantial contributions to the creation of habitats prioritised in the UK Biodiversity Action Plan. Recent research indicates that mineral sites could meet 100% of BAP habitat creation targets in England for nine out of the 11 priority habitats. MPA is an enthusiastic supporter of the *Nature After Minerals* programme run in partnership between Natural England and the RSPB.



## SAFER BY DESIGN

Research has shown that design of plant and equipment is one of the most important root causes of injury to employees. MPA has taken a lead role in the *Safer by Design* initiative which aims to improve dialogue between the industry and plant manufacturers. As a result, guidance has been developed that defines the minimum acceptable ranges of safety features for new and re-engineered mobile plant.



The Mineral Products Association is the trade association for the aggregates, asphalt, cement, concrete, lime, mortar and silica sand industries

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## OUR FULL REPORT

The full version of the MPA Sustainable Development Report has now been evolved into a microsite which can be accessed via [www.mineralproducts.org](http://www.mineralproducts.org). It includes a more detailed analysis of MPA members' performance under each of the main subject areas shown in this summary plus more comprehensive data and an evolving database of case studies.

