

## Africa: The cement market and alternative fuels

The Blogs

Sunday, 21 Feb 2010

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*In collaboration with CemWeek, Michelle Fanus from Prescon recently had a chance to chat to with Mr. Dirk Lechtenberg Founder and Managing Director of MVW Lechtenberg & Partner, a leading Germany based consultant on the use of alternative energy. Mr. Lechtenberg spoke about the opportunities in the African cement market, as well as how the industry can help increase the use of alternative fuel sources.*

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*Mr. Lechtenberg will be a featured speaker in the upcoming conference "Environmental Cement Africa Conference Cape Town 2010" on April 20 and 21, 2010, in Cape Town, South Africa.*



**CemWeek & Prescon:** How do you see the African cement markets evolve in the next few years?

**Mr. Dirk Lechtenberg:** The North African cement market has had a strong development in recent years; particularly Tunisia, Morocco and Algeria have increased their Cement production capacities. International cement groups have built new plants to produce cement for the local market as well as for exports mainly to Europe. Lower production costs and less environmental regulations (especially CO<sup>2</sup> trading schemes) have helped the north African Cement Market grow. Further, lower energy prices and privatization of the state owned plants (e.g. in Libya), plus a continuous growth rate in the North African countries is resulting in a strong presence by multinational cement groups. Another factor is the economy; from 1995 to 2005, Africa's rate of economic growth has increased, averaging 5% since 2005.



**LECHTENBERG & PARTNER** Some countries experienced still higher growth rates, notably Angola, Sudan, Equatorial Guinea, and Nigeria. These four countries in particular have experienced an oil boom, leading to higher demand for cement.

On the flip side, poverty, illiteracy, malnutrition and inadequate water supply and sanitation, as well as poor health, affect a large proportion of the people who reside in the African continent. In August 2008, the World Bank announced revised global poverty estimates based on a new international poverty line of \$1.25 per day (versus the previous measure of \$1.00). 80.5% of the Sub-Saharan Africa population was living on less than \$2.50 (PPP) a day in 2005, compared with 85.7% for India.

These new figures confirm that sub-Saharan Africa has been the least successful region of the world in reducing poverty (\$1.25 per day); some 50% of the population living in poverty in 1981 (200 million people), a figure that rose to 58% in 1996 before dropping to 50% in 2005 (380 million people). The average poor person in sub-Saharan Africa is estimated to live on only 70 cents per day, and was poorer in 2003 than he or she was in 1973 indicating increasing poverty in some areas. Some of it is attributed to unsuccessful economic liberalization programs spearheaded by foreign companies and governments, but other studies and reports have cited bad domestic government policies more than external factors.

But Africa has abundant natural resources, such as 90% of the world's cobalt, 90% of its platinum, 50% of its gold, 98% of its chromium, 70% of its tantalite, 64% of its manganese and one-third of its uranium. The Democratic Republic of Congo (DRC) has 70% of the world's coltan, and most mobile phones in the world have coltan in them. The Democratic Republic of the Congo also has more than 30% of the world's diamond reserves. Guinea is the world's largest exporter of bauxite.

Foreign investment companies are discovering these natural resources and state owned companies such as those from China. In 2007 alone, Chinese companies invested a total of \$1 billion in Africa. Between 1880 and 1914, the Race for Africa, also known as "scramble for Africa" resulted in occupation and annexation of African territory by European powers.

Nowadays, a new "scramble for Africa" has started with the economic power of rich countries, buying or leasing huge

agricultural areas to secure natural resources and food. Since 2004, five African countries - Ethiopia, Ghana, Madagascar, Mali and Sudan - had a total of 2,492,684 ha of approved land allocations. Over the past 12 months, there have been large-scale acquisitions of farmland in Africa, which have made headlines in a flurry of media reports across the world. Lands that only a short time ago seemed of little outside interest are now being sought by international investors to the tune of hundreds of thousands of hectares. And while a failed attempt to lease 1.3 million ha in Madagascar has attracted much media attention, deals reported in the international press constitute only the tip of the iceberg.

All these developments are predicting a strong demand in cement, especially in countries with stable political situations.

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**CW & P:** Are there any environmental opportunities or challenges specific to Africa that the industry needs to confront?

Mr. Dirk Lechtenberg

**DL:** Multinational cement groups have gained a lot experience in using various types of waste as a fuel resource, especially in Europe. In Germany for example, the average substitution rate with so-called alternative fuels was 58% in 2009.

In most of the African countries, there are no existing waste collection and treatment systems. Therefore, most of the waste is just dumped in uncontrolled landfill sites causing environmental and health problems. This gives cement plants the possibility to build up strong social relations with Municipalities in giving advice for a sustainable development of waste treatment solutions.

The African countries are specified as "CDM – or Clean Development Mechanism – Countries" according to the Kyoto Protocol. The Clean Development Mechanism allows the support in the development for fossil CO<sub>2</sub> avoidant projects, such as the reduction of fossil fuels through alternative fuels with a certain biogenic or "renewable" content.

This mechanism can be used for financing waste treatment projects- especially or even in poor countries where no money was available for a sustainable waste management.



**CW & P:** As a continent, what can the industry do to promote a coherent development approach consistent with alternative fuel usage and emissions?

**DL:** Cement production is energy-intensive; it accounts for about 5% of global anthropogenic emissions of carbon dioxide, and it touches on a wide range of sustainability issues, including climate change, emissions to air and water, natural resource depletion and employee health and safety.

Today, the challenge for the cement industry is to balance the growing demand for cement with the need to forge a more sustainable cement industry. The multinational cement groups are organized in the Cement Sustainability Initiative (CSI) of the World Business Council for Sustainable Development.

The WBCSD identified eight major topics for a sustainable development in the cement industry:

- resource productivity: improving eco-efficiency through improved practices in quarrying, energy use and waste recovery and reuse
- climate protection: understanding and managing CO<sub>2</sub> emissions
- emission reduction: reducing dust from quarrying, NO<sub>x</sub>, SO<sub>x</sub>, and other airborne pollutants from cement manufacture
- ecological stewardship: improving land use and landscape management practices
- employee well-being: managing and improving employee health, safety and satisfaction

- community well-being: working more effectively with local communities
- regional development: participating in regional affairs
- shareholder value: creating more value for shareholders research

The use of alternative fuels has a major impact on a sustainable development, especially in Africa, as the industry can combine and develop these activities as a guideline for the development in African countries.

**CW & P:** Thank you for sharing your views on this exciting market segment and the environmental considerations facing operators in the region. We look forward to hearing more at the conference.

*The Environmental Cement Africa Conference Cape Town 2010 brings together the environmental leaders in African cement, international and African environmental organizations and African policy-makers under one roof to discuss the key challenges & issues in the African cement industry.*

*Taking place at Mount Nelson Hotel on 20th & 21st April 2010 in Cape Town, South Africa, the conference highlights key speakers from Lafarge, PPC, Afrisam, UNEP, Suez Cement Company, Eritrean Government, MVW Lechtenberg, Trilogy Partners and WBCSD, with an exciting agenda that focuses on waste management policy, carbon management models, alternative fuel sourcing, logistical challenges and investment opportunities important to players in the African cement industry.*