



## SA's climate change mitigation policy should start with sustainable energy solutions – Winkler

By: Christy van der Merwe

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In developing countries, such as South Africa, sustainable supply and use of energy should have development impact as the first priority, and the mitigation of climate change as a logical spin-off, argued University of Cape Town Energy Research Centre associate professor, **Harald Winkler**.

Also a monthly columnist for *Engineering News*, Winkler said that climate change mitigation policy should start with local sustainable development, rather than goals set in climate terms.

This was outlined in a book authored by Winkler, which explores national sustainable energy options within the context of international climate change. The book is titled: 'Cleaner Energy Cooler Climate: Developing Sustainable Development Solutions for South Africa'.

Energy was viewed as a critical factor in economic and social development, with basic electricity supply something that all South Africans aspired to. However, energy systems impact on the environment. The sustainable supply and use of energy is central to South Africa's future development path.

In South Africa, where the economy depends on fossil fuels, the management of sustainable energy was crucial. Coal accounts for three-quarters of primary energy supply and over 90% of electricity generation. Over a decade ago, energy-related emissions were already constituting 78% of South Africa's greenhouse gases (GHGs), and the figure was steadily growing, states Winkler.

Winkler's approach would be to put development objectives first, focusing on the means to make development more sustainable, while considering reductions of GHG emissions as co-benefits.

"The connections between sustainable development and climate change work in two directions. On the one hand, unmitigated growth in emissions has the potential to undermine sustainable development. On the other hand, making development paths more sustainable can contribute to climate change mitigation," says Winkler.

South Africa, as a developing nation, has been exempt from binding GHG reduction targets assigned to industrialised countries, however, this is expected to change in the future.

At the most recent intergovernmental negotiations in Bali in 2007, developing countries acknowledged that they have a responsibility for the future (including their projected growth in emissions) and must negotiate quantifiable mitigation actions.

By focusing on development in South Africa's residential and electricity sectors, Winkler sets out to address whether there are energy policies to make development more sustainable economically, socially and environmentally, while also reducing GHG emissions.

He also examines the viability of a number of energy options, such as solar water heating, efficient housing, nuclear alternatives and cleaner coal initiatives.

Overall, he comments, that there are indeed policies that meet local sustainable development objectives and also deliver GHG co-benefits. These needed to be rigorously pursued and implemented.

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Tel: +27(0)11 622 3744 | Fax +27(0)11 622 9350 |  
newsdesk@engineeringnews.co.za  
<http://www.engineeringnews.co.za>