

## **First of its kind Bio-atlas indicates SA's higher than expected bio-energy potential**

South Africa's first Bio-atlas launched by the Department of Science and Technology has been welcomed by stakeholders as a critical resource in moving the country towards a low-carbon economy.

Aimed at assisting government in its efforts to increase the national energy resources, the Atlas indicates the potential of biomass as sources of alternative energy in the country, their geographic spread, proximity to infrastructure and potential end users.

It was developed as a result of extensive research by the South African Earth Observation Network (SAEON), which is funded by the Department of Science and Technology (DST).

Thomas Garner, Chief Executive Officer of independent power producer (IPP) Cennergi, a joint venture between Exxaro and Tata Power, welcomed the initiative, saying the DST was contributing to South Africa's transition to renewable energy and formalising the establishment of the bio-energy industry.

"Of utmost importance are the principles of inclusivity, addressing energy poverty and stimulating economic opportunities in our drive to provide energy to communities currently not receiving such services," said Mr Garner who attended the launch event on Friday (24 March).

Presiding over the launch event, Minister of Science and Technology, Naledi Pandor, said the new Bio-energy atlas indicated that the country's potential in bioenergy was higher than initially thought.

The Minister said South Africa needed a policy on biomass in order to be able to meet future competing options on the potential of bio-energy in South Africa, to determine how preference should be given to food and medicines over animal feed, chemicals and materials.

The Bio-energy Atlas guides biomass availability in the country, such as feedstock, organic waste, a mix of agricultural and forestry residue, and how this can be turned into alternative energy in the country. Biomass power is carbon neutral electricity generated from renewable organic waste that would otherwise be dumped in landfills, openly burned or left as fodder for forest fires.

Certain areas in the country are better for this kind of energy generation and the atlas points this out. In provinces like Eastern Cape, KwaZulu-Natal Limpopo, thousands of people can benefit from job creation opportunities in the cultivation or harvesting sectors.

The Minister said that the lack of capacity and limited access to data at different spheres of government contributed to the delayed uptake of bioenergy in South Africa.

"The Atlas and the portal provide policy makers with a way to address this and facilitates local and provincial government plans to exploit bioenergy resource opportunities. The web-based tool, supplemented by online and printed reports, will help us to attract potential investors into the

emerging bioenergy sector and assist local and regional planners in identifying opportunities," said Minister Pandor.

The Minister said powerful forces were driving a green economic revolution worldwide, providing a strong lever for broad-based economic development in many parts of the globe, and often re-orienting national development trajectories.

"South Africa, having one of the most carbon-intensive economies in the world, is no exception," said the Minister, adding government was strongly committed to unleashing the potential of the green economy.

The Minister said the National Development Plan (NDP) endorsed the need to move to a low-carbon economy, while acknowledging that this transition would require innovative solutions.

"It is important for all of us to understand the causes and impact of climate change, so that we can be empowered to become responsible citizens and to make changes in our lives that will improve not only our environment but also our quality of life. This behavioral change in society is crucial to a sustainable future," she said. Bio-energy will play an important role in the future energy mix of South Africa and Africa.

The Cennergi CEO described South Africa's Renewable Energy Independent Power Producer Procurement Programme, as world-class. The programme was launched by the Department of Energy and managed by the IPP office since 2011 created private investment in the energy sector to the tune of R200bn by the end of 2015 and will lead to local communities receiving R29bn for the 20-year period of the projects' life span.

"It has set the stage for South Africa's transformation into a low carbon, renewable energy future. The Bio-Energy Atlas is a next step in this transformation. Together with the Wind Energy Atlas of the Department of Energy, the Carbon Sinks Atlas as published by the Department of Environmental Affairs and the Renewable Energy Toolkit as developed by Promethium Carbon to guide project development"