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Bioenergy industry prospects in Africa

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Background: Africa is endowed with vast renewable energy resources that can provide solutions to the severe energy issues the continent is experiencing. Among them, hydropower stands as the cheapest of all and has historically being the most exploited. Since the last decade, the continent is increasingly turning to solar PV and wind to bolster energy security and support rapid economic growth in a sustainable manner. This has been due in large part to improving technology and declining costs of equipment. In comparison, bioenergy which is currently widely used for cooking and heating is almost untapped as far as power generation is concerned.

Resources: At the difference of widespread solar, bioenergy is only present in large quantities in specific areas where rain is abundant, like Central Africa and parts of West and East Africa. Although less well-off, North Africa and Southern Africa are nevertheless looking as well at harnessing this energy to enhance the diversification of their energy mix. Across Africa, the technical potential for the use of bioenergy for power generation is estimated at 2.631 TWh, with 60% in Central Africa. Bioenergy is usually being exploited in one of its three forms: solid biomass, biogas and biofuels.

Market Opportunities: The current market in Africa is still in burgeoning stages. Investments and technologies have essentially been the main obstacles. Kenya has been experimenting biogas for few decades. Although they have been unlucky so far, they are still pursuing their development. Other countries like Senegal, Burkina Faso, Mauritania and Ethiopia have also express interest into the industry. Estimates suggest that South Africa could generate 5% of its electricity from biogas. Should it be exploited through the REIPPP, this will have the potential to transform the whole industry on the continent, like it has been the case for solar and wind.

Biography

Tony Tiyou holds a triple Engineering Master's Degree from Cranfield University (UK), Ecole Centrale de Lille (France) and Faculte Polytechnique de Mons (Belgium). Tony also holds qualifications as Renewable Energy expert from the European Energy Centre (UK). After having worked and held various positions and roles for about a decade in both the Automotive and the Renewable Industry, Tony has founded with a partner, a consultancy, O'wango & TT Smart (O&TT). In September 2016, he launched a blog: Renewables in Africa.

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