Sugar industry diversifying into fuel and power

By Richard Orendo Smith

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There are many underlying reasons why the sugar industry in sub-Saharan Africa (SSA) is diversifying into fuel and electrical power. Fuel from sugar cane is generated through the production of bio-ethanol, while power generation emanates from burning sugar cane residues, otherwise called bagasse.

To date, there are a number of such projects underway in countries such as Sierra Leone, Angola, and the aborted Illovo investment, into expanding its sugar cane production in Mali, Malawi and Tanzania. For example, in Angola, the sugar and bio-ethanol project is a joint venture between Sonangol (state oil company), Damer and the Brazilian firm Odebrecht, under the following shareholding structure: Sonagol (20 percent), Damer (40 percent) and Odebrecht (40 percent). The project aims to cover a land size of 4000ha under sugar cane cultivation initially. And the expected project capacity will translate to 30 million litres of ethanol, 250 metric tonnes of sugar and an estimated 160 000 megawatt hours. The total initial investment for the project is estimated at USD250 million.

In Sierra Leone, a similar project is being initiated by Addax and Oryx Group (Makeni Ethanol and Power project). The investment value for the project is USD340 million and the project should come on stream by the end of 2013. The Makeni Ethanol and Power project will have 10 000ha of land irrigated and mechanised. The project is expected to produce a million tonnes of sugar cane per annum, 93 000 MT of ethanol and generate power of 15MW for the national grid. In terms of project funding, Makeni Ethanol and Power project will be funded by entities such as Industrial Development Corporation (IDC), the African Development Fund (AfDB), Swedfund and Emerging Africa Infrastructure Fund, while the Angolan project financing will be sourced initially from the Angola Forment Bank (AFB) and Bank Espirito Santo (BESA), including the Brazilian's state development bank (BNDES).

New EU law

EU countries have passed a law that will come into effect by 2020, which compels companies producing and marketing fuel to mix refined crude oil with at least 10 percent of bio-ethanol. The main objective of this law is to mitigate the effect of greenhouse gas emission on the environment notes Frost & Sullivan. Consequently, most of the bio-ethanol produced through these projects is earmarked for the EU market.

In this context, it is important to emphasise that Africa has an estimated 60 percent of the total available arable land globally. In addition, its climate is perfect for sugar cane cultivation, especially under tropical or semi-tropical climatic conditions in places such as West, Central, East and part of southern Africa. Frost and Sullivan concludes that investments for projects aimed at producing ethanol from sugar cane for fuel consumption, especially as the current price of fossil oil makes such projects economically very profitable, will most likely increase in Africa in the medium- to long-term period.

ABOUT THE AUTHOR

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