



## **Africa Trade/Economy and Environmental Weekly Brief**

January 07, 2008

### **Africa's Renewable Future**

By Lisa Monaghan in Belfast for CAAGLOP (07/01/2008)

With the cost of crude oil passing through the glass ceiling of \$100 a barrel, the economic prospects for oil producing African nations, including Algeria, Angola, Cameroon, Nigeria and Libya appear to be thriving. In reality this success is fractional compared to the wider African economy, which stands to lose considerably from being out-priced in the lucrative energy market. This problem will be compounded by the fact that Africa is tipped to disproportionately suffer from the impact of global warming.

Although the contribution of African countries to global greenhouse emissions is, on a per capita basis, much smaller than that of industrialized countries there is growing acknowledgement that Africa may be greatly affected by the impacts of climate change. Unpredictable weather patterns are a threat to an already vulnerable ecological base. The Intergovernmental Panel on Climate Change, IPCC, warns that global warming could upset the livelihood of as many as 250 million Africans in the next 13 years by reducing access to water and food, degrading forests, mangroves and coral reefs and causing large migrations of people. Of major concern is that so many African people are already living at subsistence levels.

Combined with the soaring energy prices due to a rapidly depleting non-renewable energy sources, the future for Africa and other developing nations appears somewhat bleak. Fortunately the reality is somewhat different, and developing nations face a window of opportunity. Underprivileged in the existing energy structure, they do not face the same energy crisis as developed nations do. The intensified focus on renewable energy provides African nations with not only a model for generating internal energy supplies, but also

harnessing an export potential.

Africa's energy sector is best understood as three distinct regions. North Africa, which is heavily dependent on oil and gas, South Africa, which depends on coal and the rest of Sub-Saharan Africa, which is largely reliant on biomass. Africa already possesses one advantage over their developed counterparts. Africa is the world's largest consumer of biomass energy, achieving almost 66% of its energy consumption this way compared to just over 3% of OECD countries. As oil and gas are attractive export commodities then local needs are met by biomass. Even in oil rich Nigeria biomass energy accounts for 97% of locally used electricity.

Africa has an enormous renewable energy technologies (RET's) potential. A joint United Nations and AFREPREN 2003 report considers African hydro-electric and geothermal potential to be vastly under-harnessed Africa is endowed with substantial renewable energy resources. Ranja and Karekzi over a decade ago estimated the region has 1.1 Gigawatts of hydropower capacity, 9000 Megawatt of geothermal potential and abundant biomass, solar and significant wind potential.

The Kyoto agreement has focused attention on the need for a sustainable and renewable energy source. Developing Nations, which are often the traditional suppliers of raw materials have previously often been forced out of the competitive markets through the inability to refine raw minerals. The opportunity to develop renewable energy allows African nations greater control over the creation and sale of this new energy sources.

RET's are envisaged by organizations such as Sustainable Energy Africa as an element of the sustainable development initiatives. National control of RET's may avoid the trap which has been created by the current arrangement of Western owned companies who regulate the production of oil. The activities of large oil corporations such as Mobil, Chevron, Shell, Elf, Agip etc have been criticized by organizations such as Human Rights Watch. They argue that a series of repressive and corrupt governments have been supported and maintained by western governments and oil corporations, keen on benefiting from the fossil fuels that can be exploited. Local poverty and environmental destruction define the experiences of many people who live in the oil rich delta

region.

Unlike traditional sources of non-renewable energy, most RET's had the potential to be locally motivated, utilize locally available resources and expertise, creating employment opportunities for the local population. RET's should be targeted primarily at local needs and have the ability to rectify the failings of the current energy arrangement. The success of current energy transfer in Africa has been limited by a combination of factors which include: poor institutional framework and infrastructure; energy in large parts of Africa can be characterized by poor reliability and poor access. Also the capital gains to be made from exporting fossil fuels ensures very little of this stays in Africa. Estimates place population access to energy in some countries at as little as 5%. This limited energy supply has the implication of limiting economic and industrial capacity potential. Locally targeted energy initiatives can rectify this enormous imbalance.

The establishment of RET's undoubtedly face many obstacles. High initial capital costs deter populist politicians who often aim for the quickest return, or corrupt politicians who aim for the largest personal return. Despite the growing international concern, and the growing body of evidence regarding the effects of global warming, African leaders, like many international leaders, have been slow to change energy policies. Oil exporting nations in particular have a vested interest in continuing to promote traditional energy policies.

The success of renewable requires strong policy commitments and coherent planning. The aim must be to establish a significant grid-connected network which provides more extensive energy supply to the African population. Biomass in particular requires regulation to avoid widespread environmental destruction and de-forestation.

The enormous benefits of RET's lie in their sustainability, they are low in maintenance and ultimately profitable. Tailored for local needs the impact on sustainable development is immeasurable. The post-Kyoto energy environment is making bio-fuel a profitable venture, if policy makers are strong enough to capitalize.

Lisa Monaghan is presently engaged in part-time PhD at Dublin City University. She also sits on the Board of Center for African Affairs and Global Peace.

Related CAAGLOP's Publications

[Africa Policy Watch](#)

[AU/EU Policy Watch](#)

[AU Weekly Monitor](#)

[Africa Regional Weekly Monitor](#)

[Africa/Asia Weekly Monitor](#)

[www.caaglop.org](http://www.caaglop.org)