

ENERGY SECTOR ACTIVITIES IN MOZAMBIQUE: PRESENT STATUS AND FUTURE PROSPECTS

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- *Presently more than 80 % of the energy consumed in the country comes from fuel wood biomass. Conventional electricity covers only about 8 % of the country's 19 million inhabitants. Consequences of a high level consumption of biomass in its primary form are of economic, environmental and health nature. In fact along the main development corridors, like those of Maputo, Beira and Nacala, and also around the major towns the effects of over consumption of fuel wood biomass are visible through deforestation. As deforestation increases, the time spent by the population to gather fuel wood also increases with negative consequences on the quality of life. Another negative factor associated with a massive use of biomass is that of household pollution, through smokes released during the process of cooking, which affects essentially women, girls and children. Both the massive consumption of the fuel wood biomass in the country as well as the low level of electrification is indicators of low level of quality of life in the country, with special incidence in the rural areas. This paper represents a contribution for a reflection towards the problematic of widespread promotion of use of renewable energies technologies, with focus on devices based on thermoelectricity, in order to enhance the quality of life of Mozambican populations, especially those living in rural areas. The paper starts by considering the energy potential of the country, discussing both conventional and renewable energy resources, and then it considers the major problems being faced by the country in terms of energy supply and demand, and also the status of implementation of renewable energy technologies at the present moment. At the end some thoughts are given about how the renewable energies technologies can contribute to enhance the development of the country, reducing poverty, enhancing education and health care, among many other positive impacts.*

Introduction

The Sub Saharan African Region faces severe and interrelated problems of energy and environment linked with growing rates of deforestation, loss of biodiversity, among others. In Mozambique around the major cities and towns, along the main development corridors, around highly populated areas and vulnerable areas, the fuel wood scarcity is a reality and affects heavily the living standards of the populations.

Biomass fuels dominate the energy balance of almost all Sub Saharan African Countries [1]. More than 80 % of the population in the SADC Region are almost totally reliant on this energy resource to meet all their needs. Many agro-processing and rural industries also rely on biomass. At the present time biomass represent about 80 % of the energy consumed, where the household sector is the major user, accounting for some 96 % of household energy requirements. Preliminary data about biomass consumption in the Sub Saharan African Region indicates that wood from natural woodlands is becoming scarcer. The pressure on natural woodlands arises from a number of sources, namely (I) population growth; (II) urbanisation, which increases the demand for charcoal; and (III) commercial exploitation of timber. These forces combine together with the production of extensive land clearance for commercial agriculture. The consequence of these pressures on the natural resource base is deforestation, which has been estimated in the region at 700 000-ha/yr [1]. Deforestation brings with it other problems, such as (I) land degradation; (II) ecological imbalance; (III) fuelwood supply scarcity; (IV) health hazards; (V) socio-economic hardship and (VI) threat to water catchments. Although consumption of fossil fuels in the Region is low compared to other regions of the world, it is expected