



BIOPOWER AFRICA

CASE STUDY/INSIGHT

BIOWATER AFRICA

Biomass power generation market in Africa is almost unexplored and the potential is huge. However, it takes time to develop projects in Africa due to various constraints. We have worked continuously for the last 15 years in various biomass projects in Africa from the concept stage itself.

The saw mills in Africa produce huge amounts of wood waste and saw dust. These wood mills are facing electricity shortages from grid and 40 - 100% of their electricity requirement is met by inefficient and very old diesel gensets. The waste produced by the wood mills is mostly open burnt or dumped. Rice mills are normally of very small size using outdated technology. They are often not connected with the grid and use inefficient and old diesel drives. This results in very high milling cost (around 3- 4 times higher than countries like Thailand and India). The new trend in Africa is to go for modern large scale rice mills.

Palm oil industries in Africa, often use very old fibre fired boilers to produce steam in order to meet their steam demand. The electricity requirement is met by the diesel gensets. Empty fruit bunches (EFB) are mainly burnt in the mill itself and the ash produced is used by the soap manufacturers.

Sugar industries are also using old and inefficient bagasse fired boilers to produce steam to meet their processing steam demand. The electricity generation is met with the diesel gensets. Only few sugar mills of larger capacity go for cogeneration.

In general, rice, palm oil, sugar and wood sectors in Africa are not very competitive compared to several other countries in Asia owing to the high energy costs of operation, and as these industries rely more on diesel gensets.

BIOWATER AFRICA

Although several parts of the land are fertile, they are not used for agriculture. On the other hand, the agricultural productivity is very low, as modern and mechanized practices are not followed. In most of the cases, the agricultural works such as harvesting are done manually.

For the next two decades, Africa has good biomass power generation potential. The reasons are twofold:

- The current use of biomass for power generation is less than 20% of the total production as most of them are left to decay or burnt.
- By improved modern package of practices, agricultural production can be increased by more than 10 times compared to the current level.

The lessons learnt from Asia and other countries can be used in Africa, so that expensive mistakes can be avoided. In most of the cases, projects in Africa are commercially attractive, as the projects generally replace diesel gensets. For those who know how to manage other risks, by joining hands with domestic investors, Africa offers excellent opportunity to invest.

