



# MODERN ELECTRICITY AND STEAM GENERATION FROM BIOMASS IN SOUTHEAST ASIA

**CASE STUDY/INSIGHT**

# MODERN ELECTRICITY AND STEAM GENERATION FROM BIOMASS IN SOUTHEAST ASIA

Cogeneration means the generation of two different forms of energy, i.e., heat and electricity. This concept was very popular in Europe and other developed nations. However, in the early 1990s, they were not very popular in developing countries. To promote cogeneration in South East Asia, the European Commission (EC) along with the Association of Southeast Asian Nations (ASEAN) came up with a project called EC-ASEAN Cogen Program.

The main office of the EC-ASEAN Cogen Program was set up at the Asian Institute of Technology (AIT), Bangkok. Further in each Southeast Asian country, a country coordinator was appointed to provide support at the country level. Various promotional activities were carried out under the Cogen Program in the initial days. Several biomass boilers and turbogenerators were implemented to produce steam and electricity separately as well as together in a single plant. Several plants were installed under the EC-ASEAN Cogen Program until 1999.

# MODERN ELECTRICITY AND STEAM GENERATION FROM BIOMASS IN SOUTHEAST ASIA

These plants were set up mainly within wood mill complexes, rice mill complexes and palm oil processing plants. A significant number of these installations were set up in Thailand, Malaysia and Indonesia. In addition to that, the Cogen Program provided several promotional activities to encourage the implementation of modern and efficient technologies to produce steam, electricity and both from agricultural wastes in Southeast Asia. In other words, The Cogen Program was instrumental for project owners to gain confidence in implementing such energy generation plants within their agro-industrial complexes. This program was extremely successful as it led to technology transfer of the latest EU technologies for boiler and turbine throughout Southeast Asia

While European suppliers benefited from this program, the end-users in South East Asia also benefited from getting the latest and modern technologies which were normally practised only in the developed countries. For end-users, the program covered up to 15% of the investment cost in terms of the grant. This gave additional boos for the end-user to switch to such modern steam and electricity-generating cogeneration technology from the EU.

