Abengoa (www.abengoa.com) has 4 offices in Asia (Beijing, Seoul, Mumbai and Singapore), being Singapore office the responsible for Business Development in the region.

Abengoa, through its subsidiary Abengoa Bioenergy has been looking for opportunities to invest in second generation biofuels projects based in our proprietary technology (Enzymatic Hydrolisis) in SE Asia for the last 2 years.

During this time we’ve been exploring opportunities and collaboration schemes with local partners in Malaysia, Thailand, Phillipines, Vietnam and Indonesia, for production of biofuels from different biomasses (palm oil residues, cassava starch, rice straw, sugarcane bagasse/straw)
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Approach to Sustainability

From Abengoa’s President “The Challenge of Sustainability” letter:

Our existing energy model, based on fossil sources, is showing clear signs of exhaustion. For this reason, one of the most important challenges in the coming years will be to progress towards a model based on non-contaminating renewable energy sources with a guaranteed supply. In order to effectively combat climate change, I believe that we need to adopt a new economic paradigm in which the costs of goods and services include not only the manufacturing cost, but their environmental cost as well.

The coming years will witness a substantial rise in world population (it is very likely that it will reach 8 G\textsuperscript{3} people within 20 years, and in 2050 will grow to 9.3 G)\textsuperscript{4}. This will have a significant impact from the environmental standpoint. In the first place, we will experience a considerable lack of water, with 50\% of the population possibly suffering scarcity\textsuperscript{5}. In addition, waste generated, both industrial and domestic, will increase substantially. And, finally, if we do not promote the use of clean energy sources, there will be a dramatic increase in the demand for energy, resulting in a rise in CO\textsubscript{2} emissions.

In view of the situation, it is not at all surprising that biofuels represent the most promising alternative for decreasing the environmental impact of the transportation sector. The use of bioethanol as a fuel delivers a reduction of more than 144 grams of CO\textsubscript{2} for each kilometer driven. In fact, there is no other real viable alternative capable of generating similar benefits over the next 20 to 30 years... ...And it is a fact, moreover, that biofuels can, on the one hand, help decrease the dependence on energy, which most of the world’s nations have contracted with the oligopoly of oil-producing countries; and, on the other, they can contribute to lowering oil import expenditure.

Biofuels also contribute to sustaining rural populations by giving them options, both as producers of raw materials as well as in transformation industries. In short, the use of biofuels, along with increased vehicle energy efficiency, is essential in the struggle against climate change and in countries’ achieving greater energy independence. Both objectives are very important for attaining sustainability.
Main opportunities identified:

- Sugar Cane Bagasse/Straw hybrid projects.
- EFB and other Palm Oil residues.
- Rice Straw.

Challenges:

- offtake market
- biomass availability
- biomass supply (long term volume & prices)
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How to drive investment and growth in SE Asia

To create a Biofuel industry in SE Asia, we identified the following “must’s”: 

• Regulatory framework (biofuel mandate, farmers subsidies)

• Governmental support to face feedstock supply risk (long term, fixed price, logistic investment).

• Integrated projects (Farmers, local investors, Government, technology providers)

• R&D programs. Technology must be adapted to different biomasses.
Thanks

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