

Need for low carbon development initiative in south Asia.

The impacts of higher temperatures, more variable precipitation, more extreme weather events, and sea level rise are felt in South Asia and will continue to intensify. These changes will have major impacts on the economic performance of the countries in the region as well as on the lives and livelihoods of millions of poor people.

Increased energy consumption, fueled by a relatively high economic growth, has been accompanied by rising Greenhouse Gas (GHG) emissions. On average, emissions have risen at about 3.3 percent annually in the region since 1990—more rapidly than in any other region except the Middle East. Direct emissions from transportation account for nearly 25% of global energy-related CO₂ emissions. As people around the world increasingly move into the middle-class society, vehicle ownership levels will rise, and the corresponding increase in economic activity will increase emissions from aviation, maritime and trucking.

According to the International Energy Agency, if we are to satisfy economic growth and limit global warming to below 2°C, 10% of all transport fuels must be low carbon by 2030 and 30% by 2050. This



will lead to an effective reduction in greenhouse gas emissions of about 2 billion tons per year. In terms of replacing their fossil equivalents, this translates to some 800 million tons of oil equivalent per year hence a large increase and use of low carbon alternative fuels will be

required over the next 20-30 years to decouple economic growth from the business-as-usual increase in CO₂ emissions from global transportation demand.

Low carbon transport fuels are essentially liquid or gaseous fuels with a significantly better CO₂ performance than conventional fossil transport fuels. Low carbon fuels can be based on biomass or other short-cycled carbon resources. Compared with fossil fuels, their life cycles of production and use lead to (much) lower CO₂ emissions.

Today, only 3% of transportation fuels (including marine, road, rail and aviation fuels) can be called 'low carbon'. In some countries, specific low carbon biofuels have already reached mature status, leading to hundreds of facilities with a combined production of about 70 million tons of oil equivalent. For example, Brazil has reached a 27% share of low carbon fuels in transportation, the US a 10% share and the EU 5%. But such successes have not been easily replicated in other countries and regions. In most countries, development of low carbon transport fuel markets and technologies is lagging behind their technical potential.

This growth must be met in a sustainable way with overall emissions minimized and other sustainability criteria met. Moreover, to achieve this, the world cannot afford to exclude any low carbon fuel options. In fact, ALL possible low carbon transport fuel options must be given equal opportunities to succeed. Starting now.

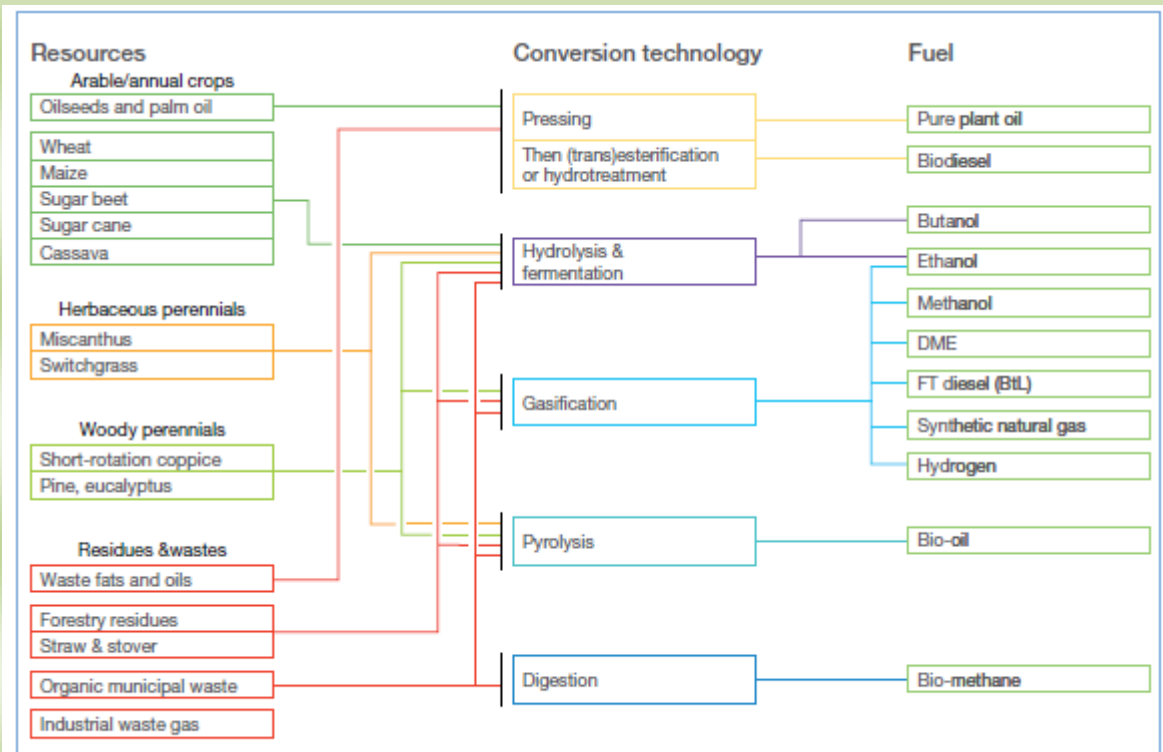


Figure 6. Low Carbon Transport Fuels pathway (adapted WBCSD, Biofuels – issue brief, 2007)

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