Competition for Land
Fuel v Food

TS 1E

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Objective

To develop a project that will consider the implications of competition for ground between food crops and energy crops

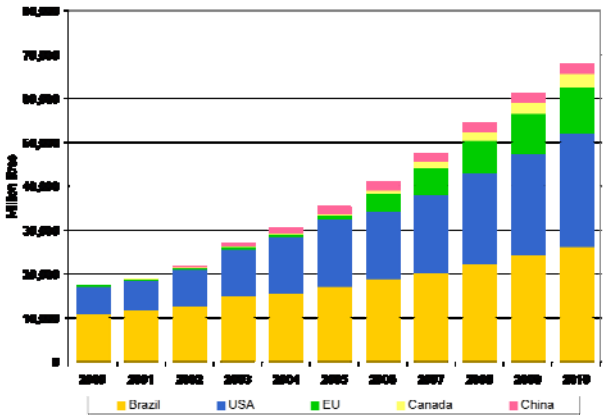
FIG Objective

"….how surveyors should be developing a response to Social, Economic,Technological, and Environmental change.."

Background

- In December 2007 FAO reported that world food prices had risen by approx 40% in the previous 12 months
- In July 2008, World Bank Policy Research Working paper concluded "..large increase in biofuels production in the US and Europe main reason behind steep rise in food prices"
- Egypt banned rice exports
- China price fixing on grain, meat, milk, eggs to maintain stability in the market
- Indonesia soya bean shortages
- Pakistan wheat shortages

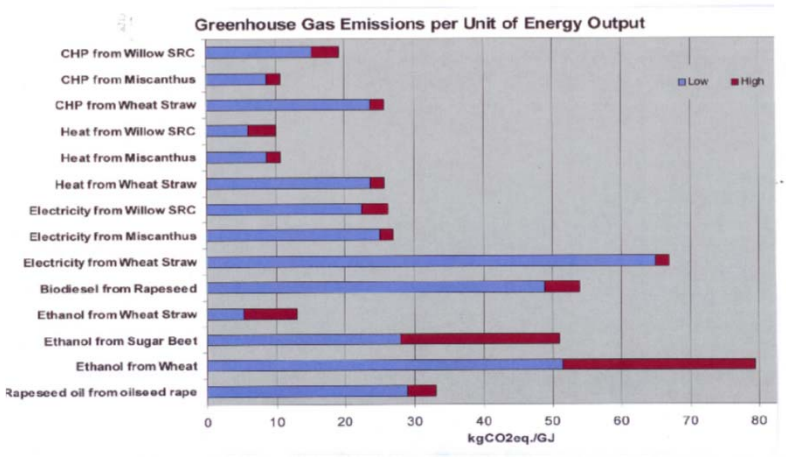
Global Growth Bioethanol



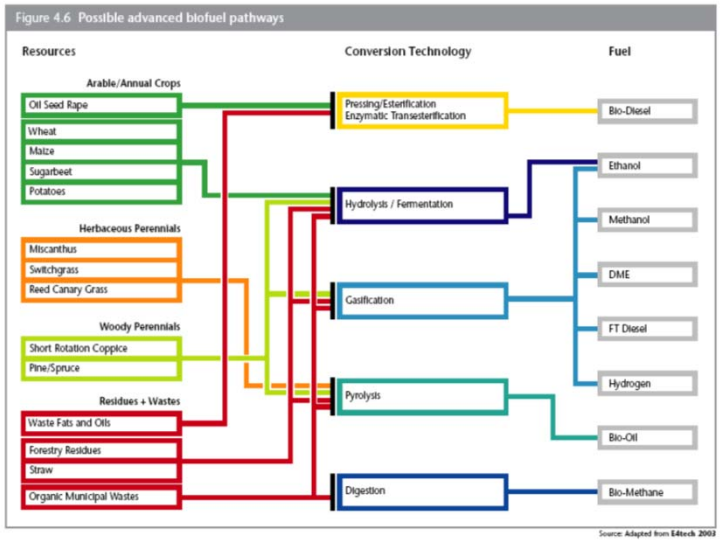
Factors to Consider

1. Energy Balance
2. Technology
3. Cost Effectiveness
4. Policy
5. Need
6. Water Resource
7. Sustainability

Energy Balance



Technology



Cost Effectiveness

- Cost of producing the crop/making the fuel
- Cost at which sell the fuel/crop
- Cost of carbon saving

Need

- Poorer countries suffer disproportionately when price of oil goes up
- Balance food demand versus higher value market
- Agriculture is entering a new phase where there is unlimited demand for produce
- Europe exporting environmental problem by creating demand for liquid biofuels

Sustainability

- Feedstock Production
- Land Use Land Diversification
- Biodiversity
- Balanced Eco systems
- Whole Life Costing (not just fuel)
- Environmental Pollution
- Social Aspects
- Economic Aspects