ENSURING SUSTAINABILITY IN DEVELOPING WORLDS BIOFUEL PRODUCTION

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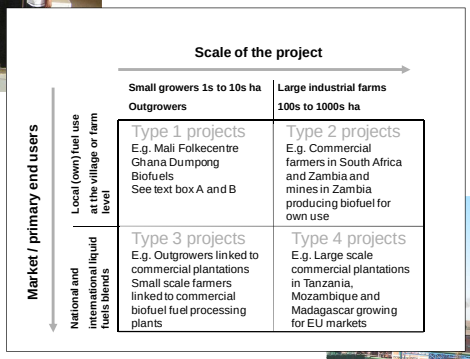
Mali farmer growing jatropha as a fuel source to fuel 3 X 100 KW generators that will provide power to his village

A typology of biofuel projects

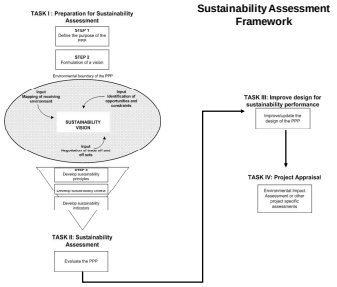
Not all biofuel projects are the same.
Sustainability issues will differ between different types of projects.
Cannot use a one size fits all approach



Brazilian ethanol production from large scale mechanised sugar cane fields

Is certification and setting of sustainability criteria a sufficient approach to ensure sustainability?

Certification is a powerful approach to ensuring sustainable biofuel production practices.
A number of certification schemes are under development and sets of sustainability standards are under development. These include the EU standards, the Round Table on Sustainable Biofuels and the Round Table on Sustainable Palm Oil to name a few.
This approach is highly commendable and already, in southern Africa at least, seems to be driving positive behaviours with large scale commercial biofuel growers. There are, however, some concerns.
1) The approach may not be applicable to locally grown biofuels for local use. In these cases the urgent requirements for local economic development and local fuel security my be more important.
2) Where growers have an option to sell into markets that do not require certification, this could lead projects to simply switch market if they do not reach the required standard.
3) Global standards may ignore local realities. In essence it allows developed nations to dictate to developing nations, and consequently might meet the developed rather than the developing nations needs.
4) It does not provide the tool to ensure sound local level planning.



The CSIR in conjunction with the Re-impact project are developing tools to conduct sustainability assessments of project prior to their initiation (Haywood *et al*. 2009 in press).

How to ensure sustainability?

In addition to the process of certification and the setting of sustainability criteria we advocate that the following are required.

1) A set of evidence based scientific tools to allow stakeholder to fully understand the consequence
of biofuel development and the likely consequences of the alternative land use options.
2) The setting up of monitoring programmes that are regularly evaluated to ensure that biofuels are meeting the desired outcomes and that no un-intended negative consequences are occurring.
3) A sound national policy environment. This should include mandatory impact assessments that are conducted in a transparent and participative fashion, and that consider both socio-economic as well as environmental concerns.
4) Planning tools that allow local and national stakeholders to plan for sustainability from the beginning.

Detailed research into the water use impacts of *Jatropha* are being conducted by the CSIR to understand if Jatropha introduction would have negative catchment hydrological impacts.

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Additional information can be obtained from the author gvmalt@csir.co.za or from the re-impact website http://www.ceg.ncl.ac.uk/reimpact