

# Further Information on major biofuel investors in Tanzania

## *1 BioShape*

### *The Environmental Impact Assessment*

An Environmental Impact Assessment for the BioShape Kilwa project was conducted by the Tanzanian consultancy company M/S Environmental Management Consultants (EMAC), PO Box 974, Moshi Tanzania, and has been approved by the Tanzanian National Environment Management Council (NEMC) despite its many omissions (see below). Mr Obadiah M. Ndosu of EMACO was the Team Leader, while Mr Canisius J. Kayombo, Botanist and Herbarium Technician at the National Herbarium, Tanzania and Mr Joshua Mushy, of the College of African Wildlife Management in Moshi carried out the survey.

A copy of the EIA by M/S Environmental Management Consultants (EMAC) has been examined by conservationists in Tanzania and demonstrates the following:

1. Throughout the document the area is characterised as disturbed miombo. There is no mention of the fact that the project is within the Coastal Forest biodiversity hotspot and that the project might pose a risk to some of the Coastal Forest endemic species. Coastal Forests are not mentioned anywhere.
2. There is no detailed description of the methodology used to assess the vegetation and therefore provide a basis for concluding that it is mostly low-value miombo. It appears that field visits were made to the site but that the main focus for these was on stakeholder consultation. There is no mention of any detailed study of the vegetation either using ground surveys or remote sensing. Thus all conclusions about the vegetation type found in the area appear to be unsubstantiated., especially when compared to actual satellite images.
3. No basis is given for concluding that the buffering approach that they propose is suited to the ecology of the area, and no attempt is made to map elephant trails to prevent planting on these.
4. No analysis is made of the change in carbon balance following clearance of natural vegetation and replacement by *Jatropha* plants.
5. No scientific references are provided for any the ecological claims made in the reports. The only references listed relate to the various policies and to EIA methodology.
6. The report makes repeated claims that biofuels can reduce carbon dioxide emissions and that this is a justification for their development. No life cycle analysis is provided to substantiate that for the Kilwa *Jatropha* example and given that the raw materials are going to be transported by ship from Tanzania to Europe and that large swathes of natural vegetation are going to be cleared, it seems unlikely that this will result in a positive net carbon sequestration.
7. The report is ambiguous (and in places contradictory) as to whether the *Jatropha* will ever be processed in Tanzania. The report claims that a benefit of the project will be 'Curtailling of foreign resources through reduced import of fossil fuel.' However for at least the first five years, the project will export the raw material for processing in the Netherlands and Belgium and in various places, this is quoted as being the market for which the fuel is intended. Nowhere in the report does the developer make a firm commitment to construct the processing plant in Kilwa. As such it seems that there is a considerable risk that the developer will never build a processing plant in Kilwa and will continue to export the raw material thereby undermining one of the quoted benefits.
8. The sums of money that they are planning to pay the villagers for their land and trees is nothing short of exploitative - TSh 8000 / ha (USD 6.67) including the trees (plus TSh 7000 to the District).
9. A biofuel expert has questioned the economic viability of the plan which seems to be based on some key assumptions which are not well proven and are not explored in the EIA. In general,

most of the data on *Jatropha* comes from India. A PhD student who assessed some of the plantations in India found that some of the data was questionable. However based on the data available, in good conditions it takes 5 kg of *Jatropha* seeds to produce 1 litre of oil (oil content in Arusha has been around 15 %). Crude oil at Dar es Salaam sells at USD0.52 per litre. Others have calculated that the cost of producing the seeds should therefore not exceed USD 0.16 (because of other processing costs etc) in order to be competitive with diesel in Tanzania. Once the other costs of infrastructure etc. have been taken into consideration, it has been estimated that a producer can not afford to pay labour more than 3 - 4 US cents per kg of seed. These figures are similar to what BioShape estimate that they will pay their workers i.e. TSh 3000 for 80 kg however it seems highly unlikely that they will find 10,000 people willing to work under those conditions for any prolonged period. It also assumes that the oil content will be good which is not documented in the report.

10. The business plan (not seen) may therefore be based on a significant income from the timber that is being harvested. The report itself states that the sale of the timber will help to pay the costs of establishing the plantation (although it is unclear how selling off its timber for a pittance to establish a potentially uneconomical biofuel plantation will really benefit the District or Villages in the long run).

11. The impact of 10,000 people moving to such a sensitive area is not addressed by the report. In addition this is an unrealistically large number of people to manage adequately.

12. In particular the report does not consider the impact that such a population will have on the surrounding environment bearing in mind that labour is likely to be seasonal. In Arusha, they have found that *Jatropha* only produces seeds when it rains. This means that there will be a peak demand for labour to harvest the seeds at particular times of the year. For the rest of the year, the workers will either have to find alternative forms of employment or migrate elsewhere. The inevitable additional pressure on the forests from logging and charcoal production are obvious.

13. The report makes no mention of uncertainties in the biofuel market particularly given the (likely?) about-turn in Europe regarding member state's obligation to adopt biofuels.

14. Overall it seems that 81,000 ha of land are being allocated to an investor for very little money to largely clear its natural vegetation without a logging permit from the District Forest Officer in order to produce a crop whose economic viability is unproven.

According to BioShape's director Will Hermans, the Dutch consultancy company AIDEnvironment <http://www.aidenvironment.org> also conducted a 'Strategic Impact Assessment' for them, and a consultant from AIDEnvironment has visited Tanzania because they considered the EMAC EIA to be wholly inadequate. A request to AIDEnvironment to view this Strategic Impact Assessment was refused on the grounds of client confidentiality<sup>10</sup>, with a later clarification that it was not an Environmental Impact Assessment (hence the 'Strategic Impact Assessment' label) and therefore outside the disclosure requirement according to EU Directive 2003/35/EC.