



# The Status of Biofuels Projects in Tanzania

Draft Report for Overseas Development Institute

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## 1. Introduction

News regarding biofuels investments dominated the Tanzanian media throughout 2007 and 2008, following the introduction of a variety of feedstocks for biofuels production. By March 2009, the total land requested for biofuels investment in the country reached over 4 million hectares, and around the same time only 640,000 ha (Sulle & Nelson 2009), were allocated to more than 37 companies (Kamanga 2008). Around the same time, the finalized deals had less than 100,000 ha of land (Sulle & Nelson 2009). Unfortunately, these exorbitant land requests contributed to the displacement of people and poor compensation of the populace led to a public outcry, forcing the government to place a moratorium on new projects until the appropriate biofuel guidelines and policy framework were established (Afandi, 2008). However, by the end of 2012, the HAKIARDHI report indicates that about 80,372.86 ha of land had been formally released to investors, and that investors had requested a total land of up to 313,220.5 ha including the 80,372.86 ha already leased out (HAKIARDHI forthcoming). Currently, however, there are very few biofuel companies that are operational as some have already ceased their operations in the country, and some have changed their business plans. This brief is divided into three sections. This section is followed by the methodology and approach, followed by a discussion, and lastly the paper discusses the impacts of biofuel investments in Tanzania.

## 2. Methodology and Approach

Most of the information used in this brief was obtained from the review of recent literature, documents received from the Tanzania Investment Centre (TIC), interviews and personal communication with officials at TIC. Additional information was sought from the Ministry of Agriculture, Food Security and Co-operatives, and Ministry of Land and Housing Development. TIC keeps the record of foreign companies that have sought registration and some tax relieves. One would regard the Ministry of Land as the custodian of national land, which keeps records of the land deals in the country, however, it has been difficult to secure any information from this ministry.

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This information was supplemented by contacting different sources close to a number of biofuel companies in key districts. For a number of projects, the information provided was verified by the author from his recent field work (Nov – Dec 2012) in the districts of Bagamoyo, Kilwa, Rufiji, Dodoma, Morogoro and Kilombero. Other districts visited during this time include Mkinga, Pangani, Bahi, Chamwino and Tanga. All the districts either have or have had biofuels or land based investment(s).

However, given the limited time and resources allocated to this study, it was difficult to cross-check a number of details obtained from the recent studies and personal communications with those on the status of some projects that are in remote areas and inaccessible online. It was also difficult to access details on employment and income of companies that are not listed at the TIC; however, some of these details could be obtained by more in-depth research with direct contact with representatives of these companies.

It is clear that these figures are way below the initial 4 million ha requested by the investors. However, the report precisely cautions that most deals, particularly those that involve new investors, the former settlers, and investors who have negotiated their deals with villages, could hardly be accessed. Moreover, the land deals in Tanzania remain a top secret between investors and government officials (HAKIARDHI forthcoming). Yet, data inconsistency and lack of co-ordinated land database system within the government offices are clearly prohibitive challenge for establishing land size formally leased by investors and actual land requested for biofuel production (Chachage & Baha 2010). Indeed, the lack of updated information and transparent and easily available data on land-based investments in Tanzania remains unaddressed critical governance issue. Currently, it is not clear which agency collects, monitors and updates this information, partly because TIC is understaffed and as such they barely do as much field work, even for the sake of updating the information of the companies they have registered.<sup>1</sup>

### 3. Discussion: The Status of Biofuels Projects

In Tanzania, biofuel companies are primarily attracted to the coastal regions namely Lindi, Coastal and Tanga due to the availability of rainfall, and access to the port and fertile soil. Nevertheless, a number of companies were scattered all around the country but mostly to the fertile regions such as Kagera, Arusha, Rukwa and Kigoma.

Initially, a large number of biofuel companies sought very large areas for jatropha and sugarcane plantations (BioShape 81,000 ha – jatropha and SEKAB Tanzania Ltd – 400,000 ha for sugarcane). However, most companies ended up getting less than 50,000 ha and indeed very few managed to finalize their deals due to laborious land acquisitions process (for details on land acquisition process in Tanzania see Sulle & Nelson 2009; 2012). The current data indicates that the number of companies that have applied for jatropha or biodiesel ( $\approx 19$  companies) by far exceed those that have requested to plant sugarcane for ethanol ( $\approx 5$  companies). One explanation for this though may be the preconceived investors' assumptions that jatropha – the magic tree—does not require the huge capital investment that is necessary for sugarcane. In addition to this assumption, some senior government officials in Tanzania were widely promoting jatropha on the grounds that it is the non-edible feedstock, thus unlikely to compete with the food crops.

Nonetheless, there were about five biofuels companies that were in operation by 2008. These include, SEKAB Tanzania Ltd, Sun Biofuels, CAMS Energy Ltd - all located in the coastal region. Other companies were FELISA in Kigoma Region and BioShape in Kilwa. All these companies were implementing plantation models with some ideas to introduce outgrowers' schemes. It was only FELISA which aimed to grow palm oil using both plantation and outgrower schemes. FELISA, however, had an advantage because most of

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<sup>1</sup> Interviews with TIC officials, January, 2013

the smallholders in Kigoma traditionally grow palm oil for both food and commercial purposes.

Contrary to these models, there were two companies, PROKON Tanzania Ltd (Germany) and Diligent Tanzania Ltd (Dutch) that were providing only extension services to farmers that voluntarily sign contracts to supply jatropha seeds to the company. The companies started their operations in 2005, however, at the moment, Diligent has been sold to a new owner and the PROKON Tanzania Ltd situation is not clear.

Already, major companies that came with ambitious large plantation models have either collapsed or sold to new investors. SEKAB Tanzania Ltd (Swedish), Sun Biofuels (UK) and Diligent Tanzania Ltd (Netherlands) are the examples of companies that have sold their properties to other owners. Already, new owners, such as EcoEnergy Tanzania Ltd that bought the property of SEKAB Tanzania Ltd, are trying to use a business model similar to that of the former investor (SEKAB Tanzania Ltd), but others are trying to do their own research on the type of feedstocks and business model they may employ. For example, 30 Degree East has been reported researching about the use of sorghum to produce biodiesel rather than the initial plans employed by Sun Biofuels to plant jatropha only. It is also researching on a variety of jatropha to identify the high yielding ones.

At the moment, there are no data on the amount of biofuels produced by the operating companies in the country and there are no clear cut methods of tracing these companies regarding how much they produce and where the produce is taken. For instance, while the current guidelines require the Ministry of Energy and Minerals to be the national coordinator of the biofuel initiative, the exports of Jatropha can be traced in the records of the Ministry of Natural Resources and Tourism. For instance, in 2011 the Sun Biofuels Tanzania Ltd exported 16litres of jatropha to Finland and earned US\$ 7875 (URT 2011).

While the earlier study by Kamanga identified 37 biofuels companies that had either invested or started the land acquisition process in 2008 (Kamanga 2008), currently the official records by TIC show only 11 registered biofuels companies. Nonetheless, the TIC records do not show the current status of the registered companies, making it much difficult to understand the biofuels situation at the moment. Yet, a recent study indicates that there were about 25 biofuels companies in the country, although the status of some of these companies could not be verified (see Locher & Sulle forthcoming). Given the complexity of obtaining data on biofuels companies, this scoping analysis provides the following estimates:

**Table 1: Project Summary**

	<b>Ethanol</b>	<b>Biodiesel</b>	<b>Total</b>
Number of projects authorised	1	7	8
Number of projects implemented	1	7	8
Total area authorised (ha)	22,000	42,211	66,211
Current area under cultivation (ha)	200	1,020	1220

Planned area for cultivation (ha)	34,132	193,106	
Current output of biofuel (specify tonnes/litres)	Unknown	Unknown	Unknown
Planned output of biofuel (specify tonnes/litres)	Unknown	Unknown	Unknown

Note: figures in this table don't include the sugar plantation for none-ethanol production

**Table 2: Feedstock Summary for Biofuel Production**

Crop	Current area under cultivation estimates (ha)	Planned area for cultivation estimates (ha)
Jatropha	1,020	193,106
Palm Oil	350	9,258
Sugar	200	34,132
<b>Total</b>	<b>1,570</b>	<b>236,496</b>

**3.1 Factors Affecting the Status of the Biofuel Projects**

Presently, Tanzania has no policy, legal or institutional framework to manage and govern biofuel investments in the country. Even though the National Biofuels Task Force (NBTF) was established in 2006 to formulate the policy framework, the first Biofuel Guidelines were only published in 2010. NBTF recently came up with a liquid biofuels draft policy in 2012. To date, the Ministry of Energy and Minerals has yet to respond to the comments made on the draft policy by members of the public, CSOs and academia. The following paragraphs summarize a number of factors that lead to the stagnation of biofuel investments in Tanzania

***Lack of policy, legal and institutional framework***

While the ministry has undertaken some steps in the preparation of the policy framework, the lack of clear policy, legal and institutional framework contributed to the delay and failure of a number of projects. These frameworks are important to clarify and guide issues like the blending ratio, land ownership and choice of feedstock as they play a great role to any investors' decision making processes. The government, for example, has been reported to have targeted a blending ratio for transport fuel ethanol at 10% by volume (E10) and biodiesel at 20% by volume (B20) (Mkindi 2008), but these are not yet in place.

***The Global Financial Crisis of 2008 – 2009***

Most of the companies that were investing during the year 2008 -2009 were hit hard by the financial crisis as they did not have access to financial resources required to developed their projects or establish new ones. For instance, in 2008, SEKAB Tanzania Ltd planned to secure a loan from commercial banks around the world using the derivative right it could have obtained for 400,000 ha it identified in Rufiji District (Sulle & Nelson 2009). However, following the tedious procedures to organize villagers, conduct land use plans and resistance from villages, the company withdrew its plans to search for land in the District and later sold its assets including land in Bagamoyo to Eco Energy Tanzania Ltd.

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### **Cumbersome land acquisition processes**

The lack of clarity on land laws and their application, especially from investors' perspective, delayed the whole process to start a number of projects and large tracts of land which were acquired without proper compensation to communities using those lands, leading to current conflicts (Bergins 2012, Markensten and Mouk 2012).

### **Limited knowledge on local situation**

Foreign companies that were investing in biofuels had little knowledge about the nature of doing business in the country, and poor understanding of the climatic-conditions. Sulle and Nelson (2012) provide a summary of this situation.

### **Uncertain marketability of the biofuels produces**

Earlier studies (Songela & Maclean 2008; Gordon-Maclean et al 2008) established that most of the large companies that were investing in the Tanzania biofuel industry were targeting the European markets. This was due to the EU policy that set a 10% sourcing of transportation energy from biofuels. However, after realizing the difficulty of implementing this strategy, the experts have been advising EU to change its requirement to source only 5% of transportation energy from biofuels.<sup>2</sup>

## **3.2 The impacts of biofuels investments**

Indeed, a number of studies carried out since 2008 – 2012, the impacts of biofuel investments have detailed the impacts of biofuel investments in Tanzania. This paper briefly revisits two major impacts which cannot be disassociated from the status of these investments.

### **Job creation**

Initially biofuel investments were based on the premise that they would help to reduce the energy gap, improve rural livelihoods and contribute to climate change initiatives. As part of the rural development, biofuel companies promised to create jobs, and some of them registered estimates of jobs they were going to create. However, none of the companies met such ambitious goals as some of them were closed down and others resorted to new business models as explained above.

### **Deforestation**

According to the current Land Laws in Tanzania, any portion of land once acquired by the new owner, results in the old owner losing access and ownership of the natural vegetation on that land. For this reason, in Kilwa District where BioShape acquired its land from the villages' lands meant these villages automatically lost part of their village to the investor – BioShape. BioShape's land contained coastal forests suitable to produce valuable tropical hardwood. Therefore, as part of its initial plans to clear the trial jatropha nursery – a trail field, BioShape started to fell trees and establish a saw mill. The company was also reported to open up furniture and timber exporting company in Arusha (Sulle & Neson 2012).<sup>3</sup> The company's land is within the villages now practicing Village Forest Reserves through the support of the local NGO Mpingo Conservation and Development Initiative (MCDI). Already, the recent estimates of the revenue the affected villages in Kilwa could generate from the sustainable harvest of premium timber is about Tsh 30,000/ha (US\$ )(MCDI 2011). This amount is much higher than the compensation of Tsh 7,400-8,400/ha these villages earned from BioShape in 2007/2008 (Gordon-Maclean *et al.* 2008). As such with the total areas of 34,000 ha BioShape has acquired, the total revenue that can be generated from premium timber under the established certification scheme is around Tsh 1billion a year. This amount also exceeds the total compensation of TSh 405,109,600 (US\$ 315,211)

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<sup>2</sup> For details on the new requirements for biofuels contribution check:  
<http://www.mayerbrown.com/publications/detail.aspx?publication=8482>

<sup>3</sup> The estimates for the revenue generated by the company (BioShape) from timber are based on the findings of the Forest Law Enforcement and Governance Report of 2009.

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BioShape paid in total to the District Council and villages for the land lease of 99 years (Gordon-Maclean *et al.* 2008).

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ISSN: 2052-7209

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**This report was commissioned under for ODI's Agricultural Development and Policy Team research into biofuel developments and food security.**

The full report is available at <http://www.odi.org.uk/publications/7441-biofuels-land-agriculture-indonesia-ethiopia-zambiamozambique-tanzania>