



# Developing commercial biofuels through securing local livelihoods and land rights

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*Tanzania Forestry Working Group*



Jumuiko la Maliasili Tanzania

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Tanzania Natural Resource Forum



# Developing commercial biofuels through securing local livelihoods and land rights

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## Biofuels: Threat or Opportunity?

During the past several years, biofuels have rapidly emerged as a major issue for agricultural development, energy policy, and natural resource governance all around the world. Growing demand for biofuels is being driven by the prospect of high oil prices, energy security concerns, and global climate change. Many companies, including some of the world's largest oil firms, are now investing in biofuels in order to profit from this growing demand. For African countries, this is leading to a growing interest from foreign private investors in biofuels projects. For African countries such as Tanzania which are non-oil producers, biofuel production has the potential to provide a partial substitute for costly oil imports which are one of the major uses of foreign exchange and sources of inflation in African economies. For example, Tanzania imports oil at a cost of an estimated \$1.3-\$1.6 billion per year, accounting for up to 25% of total foreign exchange earnings.

Biofuels also have the potential to provide a new source of agricultural income and economic growth in rural areas. Although many biofuel investments involve large plantations, biofuel production can also be carried out by smallholder farmers as well through 'outgrower' - locally contracted farmer - arrangements. Biofuel crops may provide important new opportunities for local farmers to improve their income from relatively unproductive or infertile lands.

Tanzania, like many other countries, has experienced a rapid increase in biofuel investment. Both the Tanzanian and foreign governments are promoting this surge in biofuel investments, although Tanzania's government has also delayed some projects while the National Biofuels Task Force works to complete formal guidelines for biofuel investments.

A number of major concerns regarding biofuels investments have emerged during the past several years, on the part of civil society organizations, government policy-makers, foreign donors, local communities, and in some cases the investors themselves. Some organizations have expressed concern about the impact on the environment from biofuels investments. Of particular concern are the adverse impacts on water supplies and forests in coastal areas, which occur when large plantations are established in formerly naturally forested areas. The potential impact of biofuel production on the price of food crops, in Tanzania and around the world, has been raised as a major issue of concern. In Africa, additional concern has been expressed about the way that new biofuel investments may result in the loss of rights over land on the part of local communities. In Tanzania the media and many NGOs have drawn attention to the spread of biofuel investments resulting in communities losing their rights over customary lands, and the way this could negatively impact the livelihoods of local villagers.

The biofuels industry has emerged very rapidly in recent years and is not understood fully. Currently the industry is being adversely affected by the global financial crisis, which has led to big drops in oil prices and a shortage of financial credit around the world. But in the longer term, it may well benefit from future global agreements for combating global warming and reducing carbon dioxide emissions. Tanzania is still

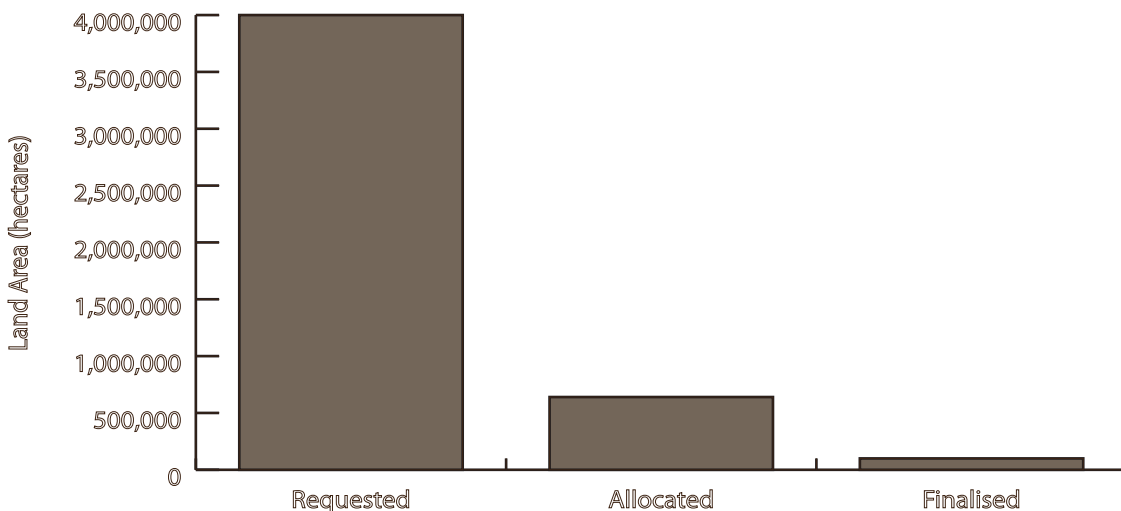
in the process of developing formal policies and guidelines for governing biofuel investments. Thus, it is important to develop measures that encourage sustainable and beneficial biofuels investments and that provide safeguards against negative impacts in terms of land tenure, environmental management and food security.

TNRF has produced this information brief, based on a longer report carried out in collaboration with the International Institute for Environment and Development, in order to highlight key issues concerning biofuel investments in Tanzania and rural communities' access to and rights over land and natural resources. It is hoped that these findings will help inform widely and contribute to policies and procedures that reduce conflicts and promote sustainable forms of biofuel investments and development.

## Overview of Biofuel Investments in Tanzania

Tanzania has about 94.5 total hectares of land, of which only about 10 million hectares are currently cultivated. With a total arable land area of approximately 44 million hectares, according to some estimates, the area of the land suitable for biofuel production in Tanzania is estimated at somewhere between 30 million and 55 million hectares.

To date, approximately four million hectares have been requested from the government for biofuels investment. Much less land, about 640,000 ha in total, have already been allocated for biofuel investments. Even less land, less than 100,000 ha in total, has been fully secured by biofuel investors following the procedures for land acquisition. Thus, most of the impacts on local land tenure from biofuels development are yet to come as further deals are negotiated and finalized. Between 20 and 40 companies have requested land for biofuel investments, including both foreign and local companies and joint ventures between the two.



Graph 1: The area of land for biofuel plantations as requested, allocated and finalised by the Commissioner for Lands and/or the Tanzania Investment Centre

Many biofuel developments are occurring in Tanzania's coastal districts such as Kilwa, Rufiji, and Bagamoyo, because these areas generally have limited amounts of agricultural cultivation and easy access to the coast and ports used for shipping. At present the main crops used for producing biofuels in Tanzania are oil palm and jatropha. Jatropha has a high oil content in its seeds and grows well in arid areas with infertile soils. Jatropha has received a great deal of attention around the world as a biofuel. In addition, sugarcane is widely cultivated in Tanzania to produce sugar, and many proposals have been developed to extend sugarcane production into biofuels (bioethanol).

**Box 1:** *The TNRF biofuels study examines four different companies developing biofuel projects in Tanzania:*

***FELISA (Farming for Energy for Better Livelihoods in Southern Africa),** a Tanzanian-Belgian start-up company that is promoting cultivation of hybrid oil palm in Kigoma Region. The company aims to grow 10,000 ha of oil palm in the region. Roughly half of this is expected to come from local smallholder outgrowers and half from a plantation, with a property of nearly 5,000 ha already acquired.*

***Diligent Tanzania Ltd.,** a Dutch company which is based in Arusha and is processing jatropha produced by more than 1,500 contracted local farmers from across northern Tanzania. Diligent is one of the few biofuels companies in Tanzania already producing and selling fuel, and also one of the few companies which is not directly producing or intending to directly produce its own fuel crops, instead relying entirely on contracted smallholder production.*

***SEKAB Bioenergy Tanzania Ltd.,** a major Swedish bioethanol producer which is pursuing the development of large-scale sugarcane production models for bioethanol in Tanzania. SEKAB BT is in the process of acquiring roughly 22,000 ha in Bagamoyo District. The company is also working to acquire several hundred thousand hectares of village land in Rufiji District.*

***Sun Biofuels Tanzania Ltd.,** a local affiliate of a UK-based company which is investing in developing countries including several other nations in East and Southern Africa. Sun Biofuels has acquired 8,211 ha in Kisarawe District, in a case that directly and indirectly affected over 10,000 people in 12 villages. The villages allocated land to the company, in a case that has received much local and international media attention, contributing to concerns about the land tenure impacts of ongoing biofuels investments in Tanzania.*

Several biofuel projects have been initiated during the past several years that involve highly capitalized foreign investments and have affected large numbers (e.g. 5,000-10,000) of local resident peoples by leading to the alienation of their rights over customary lands. Some of these, such as the Sun Biofuels project at Kisarawe, outside Dar es Salaam, have attracted a great deal of local and international media coverage and led to growing concern within the general public and civil society as to the environmental and social impacts of expanding biofuel investments. Some companies, such as SEKAB Bioenergy Tanzania, are currently working to acquire up to several hundred thousand



hectares of land for biofuel investments. Most of these large investments are either for jatropha or sugarcane.

Not all biofuel businesses involve large plantations. Some biofuel producers do not own any land directly but instead buy crops produced by local farmers according to contracts or 'outgrower' arrangements. Several biofuel companies have developed outgrower schemes for producing jatropha working with thousands of local farmers in Tanzania. Outgrower arrangements are also used for crops such as sugarcane.

The different production models that these companies are developing have very different impacts on the land rights and livelihoods of local communities'. Companies such as Diligent, which are developing jatropha oil production through contracts with local farmers, are not taking control over any land for biofuel production. As result, these companies are able to start producing biofuels earlier, avoiding the delays and costs incurred in acquiring land. However, these companies may have different challenges - such as ensuring that enough biofuel feedstock at the right quality is supplied by local farmers in order to meet production targets.

## **Impacts of Biofuel Investments on Village Land Tenure**

Companies that are establishing plantations for sugarcane or jatropha involving total land areas of up to several hundred thousand hectares, and the transfer of large areas of village land, may have a major impact on local communities' land rights and access. Land acquisition in these investments has involved companies negotiating with villages and districts for, in some cases, large tracts of village lands, which must be transferred from village to general (public) lands. Compensation is paid to villages according to the provisions of the Village Land Act. These companies may also obtain land classified as 'general land' directly from the Tanzania Investment Centre (TIC), which does not involve the transfer of village land. However, the amount of land directly controlled by the TIC is limited.

For example, Sun Biofuel's land acquisition in Kisarawe District involved the formal transfer of 8,211 ha of village land from 12 villages to the company. This required the President to formally transfer this land from village to general land so it could be granted by the Tanzania Investment Centre to the company.

Most of the land obtained or in the process of being obtained by biofuel companies has been village land that is not permanently settled but is still used by village members. Most of this land obtained in areas such as Kilwa and Kisarawe Districts is Miombo woodland, with some patches of coastal forest and thicket. The land is generally used by local villagers for forest-based economic activities, including commercial charcoal production and harvesting forest products such as traditional medicines, mushrooms, fuelwood, and building materials. Such uses are a major part of local and national economies, with the World Bank (2008) estimating that informal and non-industrial uses of forests in Tanzania account for US \$35-50 in generally unaccounted-for per capita income, given that forests provide 75% of all building materials, 95% of household

## **Box 2: Village Land and General Land**

*The Land Act and Village Land Act (1999) establishes three basic categories of land: 'general', 'reserved', and 'village' land. Reserved land is land set aside by law as national parks, game reserves, forest reserves, marine reserves, and so forth, and makes up around 30-40% of Tanzania's total land area. Village land is defined as the land within the demarcated or agreed boundaries of any of Tanzania's 10,000+ villages, which are in turn defined by local government legislation passed in the 1970's and early 1980's. The Village Land Act provides the legal framework for management and administration of village land, which is by definition held under customary rights of occupancy held in perpetuity. Village land is under the managerial authority of the Village Councils, which are answerable for land management decisions to the Village Assembly (a meeting of all village members). General land is any land which is neither reserved nor village land, and may, somewhat confusingly, include village land which is 'unoccupied or unused'. General land is under the authority of the Commissioner of Lands in the Ministry of Lands and Human Settlements.*

*The Village Land Act provides wide scope for defining village lands, and the customary rights of occupancy that are automatically held in such village lands:*

- a) Any land within the boundaries of a registered village, including that land which was originally described as the village area or has been so demarcated through any procedure since then;*
- b) Land agreed to be the land of a given village according to agreement between that village and its neighbours;*
- c) Any land which villagers have been using or occupying for the past 12 years;*

*Customary rights of occupancy are based on these definitions and are formalized through the village obtaining a Certificate of Village Land. However, even villages which do not have this Certificate nevertheless have customary*

energy supplies, and 100% of traditional medicines.

One of the patterns emerging is that compensation is being negotiated and paid principally between the investor and the local communities, rather than between the central government and local communities, as called for by the procedures described in the Village Land Act. Some investors view this approach as being necessary saying that the District Council staff often do not understand or respect the law, and are not held in sufficient trust by villagers. Although they would prefer that the Districts and the TIC handle land transaction matters entirely on their behalf, at the end of the day, these investors see themselves as having to take matters into their own hands to ensure a sufficiently efficient and purportedly equitable process. Frequently, investors do not actually immediately pay compensation to the village(s) upon the transfer of



Table 1: Changes in land status involved in four case study biofuel investments in different parts of Tanzania

Company	Location (District)	Crop	Land Acquired (ha)	Land Targeted (ha)	Previous Land Status	Current Land Status	Business Model
SEKAB BT	Bagamoyo	Sugar-cane	22,200	24,200	Zanzibar government ranch/TIC land	Granted by TIC to SEKAB BT; derivative right being processed	90% Estate; 10% out-growers or block farming
	Rufiji	Sugar-cane	0	250,000-500,000	Village land	Land acquisition in process/negotiation	
FELISA	Kigoma	Palm oil	4,258	10,000	TIC land bank	Derivative right in process.	(5,000 ha estate & 5,000 ha outgrowers)
	Kigoma		350		Village land	Subject to dispute with village, district, and another investor.	
Sun Biofuels	Kisarawe	Jatropha	8,211	50,000	Village land (12 villages)	Transferred from village to general land Feb 2009	Estate& outgrowers merely stated to be in future
Diligent	Arusha	Jatropha	None	None	n/a	n/a	Contracted farmers only

village land to general land when the company receives a letter of offer to the land from the government. As a result, communities carry a great deal of risk, in that they are agreeing to the transfer of land from village land to general land, and from Village Council to central government authority, on the basis of an investor's presumptive ability to use land title to secure bank loans. Should the investor fail to secure the loan and proceed with the project, as frequently occurs in Tanzania in relation to capital-intensive commercial investments, then the community will effectively have lost its land without receiving compensation, contrary to the spirit and letter of the Village Land Act as well as the community's livelihood interests. The sequencing of compensation payments is clearly an aspect of ongoing biofuel investments that requires much greater scrutiny by governmental and nongovernmental parties in order to safeguard local interests and rights.

In Kigoma, villagers were promised compensation payment only for the palm trees found on their land, while 'planted trees' were reportedly the basis for calculating compensation payments in Kisarawe. Even these estimates, excluding any value attached to land itself, do not appear to take any account of the opportunity costs villages face in divesting Miombo woodlands used for their economic activities. A conservative estimate of the commercial value of sustainably harvested timber from Miombo woodlands is around TShs 35,000 (~US\$28) per hectare per year. For example, the opportunity cost to villagers of the 8,211 ha granted to Sun Biofuels at Kisarawe, given this level of forest harvesting would amount to over US\$200,000 per year, assuming the presence of harvestable trees for timber in the area. This figure is already higher than the entire compensation-presumably representing the lost value of the land in perpetuity - paid by Sun Biofuels to the 12 villages. Clearly, villages incur substantial opportunity costs in granting large areas of land to investors which are not being factored into existing assessments of land values and compensation payments.

## **Conclusions and Recommendations**

Biofuel investments in Tanzania remain in a relatively early stage of development and only a few projects have fully secured rights over lands acquired for commercial production. National policy guidelines are still under development and can have a great positive impact on safeguarding local and national interests, reducing risks, and enhancing positive outcomes.

Biofuels can be an important new local and national economic opportunity for both agriculture and energy supply. Companies such as Diligent which are engaged entirely in outgrower and contracted smallholder production of biofuel crops have no negative impacts on local land tenure, and in general represent the most positive biofuel production model from a local livelihoods perspective. These companies are offering opportunities for agricultural diversification to rural communities, including those in relatively marginal lands. Such models should be widely supported and promoted.

Large scale plantation projects involving village lands are much more complicated in terms of their impacts and the risks involved. These projects involve much higher

volumes of capital investment, but they also can lead to the loss of important livelihood opportunities and the dislocation of resident communities.

Accurately calculating compensation for the loss of village lands is very difficult and may not capture many important but largely informal resource and land uses and values, such as the local use of forest products. Challenges include the lack of local knowledge of land and resource values, methods for calculating compensation, and enforcing local legal rights with regards to land allocation and compensation. Some investors have observed that the capacity of local district councils and the TIC to efficiently, fairly and lawfully allocate land to investors is low. This low capacity is further compounded by questions over the level of trust between rural people and their respective District Council land officers.

A key conclusion from this report is therefore that large-scale biofuel investments that require transfer of village lands to general lands are inherently subject to problems of equity, transparency, and difficulty in evaluating the distribution of costs and benefits. These types of biofuel investments are likely to create the most frequent negative local impacts and grievances. While there may be many positive local economic opportunities from biofuels, the risks of large scale projects need to be more clearly understood and better mitigated. The most risky investments are those seeking large areas of village land to use as collateral for obtaining financing for large-scale projects. In this regard, the case of biofuels is only symptomatic of wider issues concerning the transfer of large tracts of village land to general land in Tanzania for investor use.

Some companies are now considering alternative land holding structures such as village land trusts or equity-based joint ventures. Such developments are promising, creating collective innovation between private, public, local, and civil society groups on ways to stimulate private investment in biofuels. At the same time the long-term livelihood interests and local rights to land can be safeguarded. Experiences in Tanzania in other sectors demonstrate that such synergies are possible, such as the private-village joint ventures that have been established for nearly twenty years to govern tourism companies' access to village lands in parts of northern Tanzania. However, these alternative models may not be understood immediately or sufficiently recognised as credible alternatives, particularly when it comes to investors seeking investment loans against their newly acquired land collateral. Win-win outcomes are possible with greater collaboration and awareness of the issues and risks. This requires innovation and collaboration between villagers, district councils, investors and civil society organisations, as well as flexibility from central government and financial institutions.

# Tanzania Forestry Working Group

The Tanzania Forestry Working Group (TFWG), has met regularly since August 2005. The TFWG was formed to address advocacy and awareness raising on critical forest management and governance issues in Tanzania. The TFWG is supported and facilitated by TNRF, but depends on the members of the group to set the agenda and carry out activities.

Members of the group are all involved in forest management issues, either as organisations or as individuals interested in forest management in Tanzania.

As part of its work, the group has developed a series of collaborative projects to advance its goals of improved forest management and governance. These collaborative projects include a major campaign on promoting awareness at local and national level on forest

governance - in response to pressing issues, such as illegal and unsustainable logging and charcoal making. Other related issues include the need to expedite the implementation of participatory forest management, and tracking the reform of the forestry sector in Tanzania.

The TFWG worked for and has taken on facilitating Independent Forest Management - as a means for better understanding how much progress is being made in improving forest law enforcement and governance.

TFWG also holds roundtable discussions on 'Reduced Emissions from Deforestation and Degradation' which provide practitioners in Tanzania with the opportunity to share experiences and learn from each other about how best to advance their projects benefiting forest conservation and rural livelihoods.



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in Tanzania by addressing fundamental issues of governance.

TNRF views the quality and equity of governance as fundamentally determining how natural resources are managed and how they support the livelihoods of Tanzanians and the sustainable economic development of the country.

TNRF works to improve accountability, transparency and local empowerment in natural resource management. It brings together a diverse range of people and interests to share information, build collaboration and pool resources towards a common aim of better and devolved natural resource management.

TNRF is a long term, innovative and adaptive process of advocacy and capacity-building, based on collaboration and collective interests.

The Tanzania Natural Resource Forum is a collective civil society-based initiative to improve natural resource management



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