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Understanding bioenergy conflicts: Case of a jatropha project in Kenya's Tana Delta

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ABSTRACT

In recent years, conflicts related to tenure, management and utilization of natural resources, in particular bioenergy conflicts, are becoming increasingly common. Many bioenergy conflicts are related to plantation projects seeking to capitalize on the opportunity to profit from a combination of factors, centred on the enabling environment for biofuel plantation establishment found in many developing countries. This study analyses these and other related issues in a conflict in the Tana Delta in Kenya. The conflict is centred on a proposed 65,000 ha Jatropha curcas plantation for biodiesel by the Canadian company Bedford. Ethical Analysis, a conflict management and research tool, was employed to better understand the underlying conflict causes. Shortcomings in the technical feasibility studies and participatory planning processes were revealed, including a poor understanding of the different interests and values with regard to land tenure and traditional rights. While the adoption of Free, Prior and Informed Consent (FPIC) is proposed, also capacities and the regulatory framework need to be strengthened to improve transparency, coordination, impact assessment and investment security. The study proposes ways to manage the ongoing conflict and discusses its implications for bioenergy governance.

Introduction

The nature of bioenergy conflicts

Bioenergy-related conflicts are on the rise, triggered by the increasing establishment of bioenergy plantations throughout the world (Eide, 2008; Smalley and Corbera, 2012). Among others, the issues of greenhouse gas (GHG) emission reduction, economic development and trade, and jobs and livelihoods are highly topical as little consensus exists with regard to the positive and negative impacts of increased bioenergy utilization. The establishment of these plantations, as with any large scale change in land use, inevitably results in conflict especially when the proposed change fails to address fundamental issues such as competing demands, and is set against a backdrop of weak governance and poor tenure security (Patel et al., 2013).

Bioenergy plantation conflicts have commonly played out in developing countries, involving foreign direct investments (FDI) that seek to capitalize on the increased global demand for green fuels (Smalley and Corbera, 2012). Factors contributing to the attractiveness of biofuel plantation projects include: (a) the perceived availability of large tracts of land often coupled with the need for FDI; (b) the drive for employment creation and poverty reduction; (c) the objectives of decreasing reliance on petrol and other fossil fuels and increasing the share of renewable energy sources; (d) the reduction of GHG emissions and climate change mitigation; (e) and the support schemes of many developed countries to meet renewable energy, particularly biofuel targets for energy production.

A large number of conflicts revolving around large-scale bioenergy projects have been reported in recent years, among claims by various non-governmental organisations (NGOs) of large-scale land grabs (e.g. Oakland Institute, 2011; Grain, 2013). Biofuel developments have also been shown to be drivers of deforestation. Latin America, South-East Asia and Sub-Saharan Africa are the major hotspots of deforestation linked to biofuel developments (Gao et al.,

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2011), and are forest conflict hotspots (Mola-Yudego and Gritten, 2010; Gritten et al., 2013).

Most land-intensive bioenergy projects worldwide have involved plantations of sugar cane and maize for bioethanol, and palm oil, soy bean and jatropha for biodiesel. While the production from most of these crops can be used as both foodstuff and energy, the oil from jatropha (*Jatropha curcas* L.) is not edible and typically produced for energy. Given that jatropha does not usually compete directly with food production as it can grow on marginal land, it has been one of the most widely planted species for bioenergy production. According to the NGO Grain (2013), there are over 9 million hectares worldwide planned or already under jatropha cultivation, while Brittaine and Lutaladio (2010) predict its coverage to be 13 million hectares by 2015. Nonetheless, the viability of jatropha biodiesel at industrial scale remains to be seen (Maltsoglou et al., 2013).

In this study, an Ethical Analysis of a bioenergy conflict in Kenya is conducted in order to better understand its origins and dynamics, as well as its implications for conflict management as well as bioenergy and land use policies. More concretely, our aims were: (1) to study the interests and values of the main stakeholders with regard to the resources at stake; (2) to explore the main barriers and bridges for managing the conflicts; (3) to propose ways forward towards conflict management; (4) to discuss the case's implications with regard to improving bioenergy governance and land use policy; and (5) to further develop the conflict analysis tool (Ethical Analysis) for use in conflict management.

Case study of a biodiesel project in Kenya

A jatropha project in Kenya was chosen to examine the complex nature of bioenergy conflicts, with implications for conflict management. The project proposes the establishment of a 64,000 ha jatropha plantation within a total leased area of 160,000 ha in the Garsen Division (Tana Delta District) in Kenya's Tana Delta County (Fig. 1). The project is undertaken by the Canadian company Bedford Fuels Incorporated through their local affiliate Bedford Biofuels Tana Delta 1 Limited (hereafter Bedford). The land, corresponding to wooded grasslands, has been sub-leased by ranchers to Bedford under an initial 45 year agreement (ESIASR, 2010). In addition to seasonal pasture land, and given its location between the Tana Delta and the Tsavo East National Park, the area serves as a corridor for wildlife. Some 87,000 people live in the Tana Delta District including so called "squatters" within the project area (ESIASR, 2010).

The project plan includes a Corporate Social Responsibility (CSR) programme of 3.6 million US dollars per 10,000 ha of plantation (ESIASR, 2010). In addition to the support from a majority of ranch owners, Bedford counts on the support of many of the local leaders and a section of the local communities (mainly Pokomo farmers) (ESIASR, 2010; Smalley and Corbera, 2012). On the opposing side are local communities (mainly Orma and Wardei pastoralists) and civil society organisations (CSOs) (Smalley and Corbera, 2012). The most vocal opponents have been environmental non-governmental organisations (ENGOs) such as Nature Kenya and the East Africa Wildlife Society (EAWLS), who oppose the project arguing its negative impact on the wildlife and on the communities' traditional livelihoods. The project is also questioned by ENGOs on the basis of an alleged lack of experience on the growth of jatropha and the absence of a market study. Despite Bedford's claims that initially the production would be consumed domestically (Bedford, 2010), Nature Kenya and its partners believe this and other similar on-going developments in the Tana Delta area are driven by the prospect of exporting the biofuel to regions like the European Union, where ambitious targets for transportation biofuels have been established [(10% by 2020 as per the Renewable Energy Directive (RED) of the European Union, (European Commission, 2009)] (ActionAid, 2011; Nature Kenya, 2012).

In Kenya, jurisdiction on the approval of the required Environmental Impact Assessment (EIA) resides with the National Environmental Management Authority (NEMA) under the Government of Kenya (GoK). In May 2011 NEMA issued a conditional licence to the project for an initial 10,000 ha as a "pilot" plantation (NEMA, 2011). The first hectares of jatropha were planted in that year, and the first crop of oily fruits harvested by March 2012. However, in May 2012 a cease trade order was issued in Canada preventing the company from raising funds in the company's home province given a faulty Offering Memorandum (Alberta Securities Commission, 2012), and the possibility of abandoning the project due to "political instigations" was quoted in a newspaper article in November (Edmonton Journal, 2012). By the time of the primary data collection for this study (December 2012), the project was at a stand-still. A timeline with the main events in this conflict is presented in Table 1.

National and international influences on the biofuel project development

The conflict should be understood in the context of underdevelopment and pressure for land in the Tana Delta. For example, 76% of the population in the area live under the poverty line (national poverty rate is 30%) (Ministry of Lands, 2012b). While the ecological balance of the area was historically maintained by traditional land uses of subsistence agriculture, pastoralism and fishing (Terer et al., 2004) that had a low level of demand over resources, recent droughts, rapid population growth and land allocations on the basis of ethnicity have exacerbated conflicts between farmers and pastoralists leading to clashes. The pressure on the land is aggravated by the increased number of proposed agricultural projects in the Delta: up to 12 projects, ranging from 20,000 to 65,000 ha (Ministry of Lands, 2012a). Some of the proposed projects have been declined by NEMA on the basis, for example, of feared negative ecological impacts (RSPB, 2013).

Land in Kenya is classified as private, public or community owned (GoK, 2010). Within a process thought to give greater control to local communities, group ranches can be established under a private leasehold and title by the Commissioner of Lands. However, this process has seldom taken into account the complexity of land tenure regimes with respect to, for example, customary rights. According to FAO (2002, 2012), poorly defined land tenure – with tenure being the relationship, legally or customary, among individuals or groups with respect to land – puts communities at high risk of exploitation, in addition to implications for sustainability of resource management. Land tenure issues in Kenya are further complicated by ethnic politics, and a long history of politically allocated land rights in which different Kenyan leaders have favoured their own ethnic groups (Boone, 2011). Furthermore, the new Constitution is expected to impact on governance as well as natural resource management, for example, declaring equal rights for women and men regarding land ownership, and will give counties a bigger role over resource management (GoK, 2010).

Wood fuel supplies 68% of Kenya's energy needs (GoK, 2004). The need for reducing the reliance of Kenya's rapidly growing population on inefficient traditional biomass as well as fossil fuels has been long acknowledged by the government. Although the current National Energy Policy (GoK, 2004) and the 2006 Energy Act (GoK, 2006) encourage wider adoption of renewable energies, biodiesel and energy crops, no significant support measures have been put in place, and no specific targets set. Currently the national energy policy is being revised so that it is aligned with the decentralisation objectives of the new Constitution. Additionally, Kenya