

Due diligence on lands at risk of or subject to land acquisitions in Uganda

Author: M. Mercedes Stickler, Associate, World Resources Institute

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Acronyms

ABCG	Africa Biodiversity Collaborative Group
FIAN	FoodFirst Information and Action Network
NEMA	National Environmental Management Authority
NGO	Non-governmental organization
UCSD	Uganda Coalition for Sustainable Development
UIA	Uganda Investment Authority
ULC	Uganda Land Commission
WRI	World Resources Institute

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Background

RISKS TO LIVELIHOODS AND BIODIVERSITY POSED BY LARGE AGRO-INVESTMENTS

Although much faith has been placed in the ability of large investments to bring improved technology and capital to the historically underdeveloped agriculture sector in Africa, to date few such investments have been implemented in ways that are environmentally sustainable and produce durable benefits for affected communities. Existing private sector voluntary standards and safeguards for investments that involve large-scale land use changes typically rely on host country governments to maintain up to date information on land rights, existing land uses, and important biodiversity areas and other environmental resources. However, countries targeted for recent large-scale agro-investments are characterized by weak land rights recognition and poor social and environmental safeguards (Deininger et al. 2010). Concession allocations are thus often made arbitrarily, without due concern for potential social or environmental impacts. This lack of planning can have serious negative consequences for existing land users, biodiversity and ecosystem services.

At the same time, recent agro-investments typically seek to put new lands into agricultural production or to intensify cultivation on existing farmlands. In fact, many of the countries recently targeted for large agro-investments have large areas of arable land that are currently uncultivated (Arezki et al. 2012). However, many of these lands provide important environmental services, such as habitat for biodiversity, freshwater, and carbon sequestration. Especially in rural areas with limited employment opportunities outside of agriculture, rural peoples derive a variety of benefits from nature, such as food from crops, livestock, and wildlife; fresh water; climate regulation; and cultural benefits. As such, investments that do not account for existing land uses and land users risk displacing people and biodiversity from the land and ecosystem services upon which they depend.

Case studies of recent large-scale land investments have revealed considerable negative impacts on local land users and the biodiversity and ecosystem services that support their livelihoods (e.g., Zeemeijer 2011; NAPE and FoEI 2012). These include uncompensated displacement from environmental resources vital for local livelihoods, such as agricultural lands and communal resources (e.g. water and pasture), and deforestation—with associated biodiversity loss—as a result of investment activities and/or the displacement of local livelihood activities (e.g. farming) into forests (e.g., Deininger et al. 2010; NAPE and FoEI 2012). To minimize the negative impacts of agro-investments on biodiversity and ecosystem services, there is thus an urgent need to monitor the social and environmental impacts of existing large-scale investments and establish procedures for predicting, avoiding, and monitoring the impacts of new concessions.

PURPOSE AND METHODOLOGY

This research forms part of a larger study on large-scale land acquisition in Uganda. There are three main components of this study: (1) a “risk map” that identifies areas “at risk” for land acquisition due to their high suitability for biofuel crop production; (2) a due diligence report on the existing land uses and users of land identified as “at risk” in the first activity; and (3) an assessment of the land acquisition process, including applicable social and environmental safeguards.

Significantly, the results of Activity 3 highlighted that agricultural suitability is only one of many factors that influence which lands are acquired for large-scale agro-investments in Uganda. In fact, Uganda’s complex land tenure context makes it difficult for investors to acquire land that may otherwise be ‘suitable’ for investment. This suggests that identifying lands at risk of land acquisition based solely on their suitability for commercial agriculture would not accurately predict the location of future investments in Uganda. However, no geographical data on land rights in Uganda are available at a small-enough scale to inform land use planning. At the same time, compared to other countries in Africa where the impacts of large-scale land acquisitions have been well documented, relatively little has been published on the impacts of recent agro-investments in Uganda, particularly investments outside the protected estate¹. Therefore, this paper seeks to draw attention to the potential social and environmental impacts of future agro-investments in Uganda by presenting existing evidence from recent agro-investments.

This paper aims to help decision-makers better understand the following topics:

- i. How have large-scale investors recently acquired farmland in Uganda?
- ii. What social changes have been associated with recent large-scale agro-investments?
- iii. What environmental changes have been associated with these investments?

Due to the lack of funds available for primary field research, this paper is based primarily on the few existing case studies of recent large-scale agro-investments in Uganda. As it was not possible to verify these findings through primary field research, any omissions or errors should not be attributed to WRI or the author. To minimize the potential for error, conclusions drawn from these case studies were supplemented with information from interviews with key informants in the Uganda Investment Authority (UIA), the Uganda Land Commission (ULC), and several leading Ugandan NGOs and private sector consultancies focused on land governance and environmental conservation.

In total, interviews with more than 20 experts in government, the private sector, and civil society were completed to provide context for and corroborate information obtained from the existing case studies. Due to the sensitive nature of this topic, the names of all interviewees will remain anonymous, as will the names of all NGOs and private organizations. Still, given the limited availability of peer-reviewed literature on this subject in Uganda and the resulting heavy reliance on unpublished literature and key

¹ Challenges related to private land acquisition in protected areas have been well documented in Uganda (see, for example, Tumushabe 2003, Tumushabe and Bainomugisha 2004, and Veit et al. 2008).

informant interviews, it is recommended that the results of this study be validated through further research.

The structure of the rest of this paper is as follows. Section 2 highlights mechanisms through which investors have recently acquired farmland in Uganda. Section 3 presents evidence on the social and environmental outcomes of selected agro-investments. Section 4 concludes the paper.

Land acquisition mechanisms

As explained in detail in an accompanying paper, “Governance of large-scale land acquisitions in Uganda: The role of the Uganda Investment Authority,” the Uganda Investment Authority (UIA) is legally empowered to promote investment in Uganda, including by facilitating investor access to land. The Investment Code Act of 1991 governs the UIA’s authority to help investors acquire land in Uganda, and a number of social and environmental safeguards are applicable to this process under other laws, such as the National Environmental Act of 1994. In practice, however both foreign and domestic investors seeking land in Uganda have acquired land for agricultural production in a variety of ways. While the UIA has clearly played a role in facilitating some of these transactions, other investors have apparently circumvented the Investment Code Act. Appendix 1 summarizes the processes through which several recent agro-investors have acquired land in Uganda (Zeemeijer 2011). The following section details some of these acquisition processes.

Oil Palm Uganda Ltd.

For instance, the Uganda Land Commission played a major role in assembling 6,500 ha of land on Bugala Island in Kalangala District for Oil Palm Uganda Ltd. The land allocated for this oil palm investment included roughly 3,000 ha of formerly public land and 3,500 ha acquired through private land purchase and the degazettement of public secondary forests (Zeemeijer 2011). A Land Acquisition Taskforce was created “to identify land for purchase and ensure there were ‘no encumbrances or environmental sensitivity’, inspect and value the land, recommend for purchase, negotiate with the landowners, facilitate agreement signing, and ensure that land was protected from future encroachment” (Zeemeijer 2011, p. 131). The Taskforce consisted of representatives from the Ministries of Lands; Justice; Agriculture, Animal Industry and Fisheries; and Finance, Planning and Economic Development; as well as from the National Environmental Management Authority, the Uganda Investment Authority, and the Kalangala District Local Government (Zeemeijer 2011).

Private land identified for the investment was purchased from its existing owners. However, the limited availability of written land rights documentation and high incidence of conflict delayed this process. An excerpt of Zeemeijer’s (2011) description of the land acquisition process for Oil Palm Uganda Ltd. illustrates some of the many challenges that affected this process:

Much of the land on the island is *mailo* land and is occupied by *kibanja* [i.e. customary] tenants. Their rights are recognized under the 1998 Land Act. Some of the landowners on the island could not be located by the Taskforce or were deceased. In order to participate in the project, people needed a right of tenure, such as a land title or letters from local chiefs assuring that they had lived on the land for more than 12 years. Some of them did not know where their land was or had lost their titles. In other cases there were family wrangles over ownership, ‘once it was realized there was a market’. Prices of land rose from UGX 150,000/acre (USD 84²) in 2002 to

² Exchange rate based on XE Historical Currency Converter rate for August 2, 2002 (XE 2012).

UGX 800,000 (USD 495³) in 2008 (IFAD 2011: 11-12). According to VODP (2011), there were many instances where a 200 ha piece of land had roughly 3 ha of disputed land that was part of it. Those 3 ha would prevent all of the 200 being handed over. (page 132)

Kaweri Coffee Plantation

The UIA was also directly involved in allocating a lease of 2,512 ha to the Kaweri Coffee Plantation in Mubende District. While this much is clear, the process through which UIA acquired this lease is less so. The former owner of the land had apparently originally planned to sell the parcel to the Ugandan Peoples Defense Force (UPDF). Although, some 538 ha of this land were reportedly owned by someone else (Kayiira 2001). Nonetheless, the full 2,512 ha of land were sold to the UIA, which in turn leased the parcel to Kaweri Coffee Plantation. Some 2,041 people were allegedly forcibly removed from the disputed 538 ha of this parcel to make way for the investment (Kayiira 2001).

Amuru Sugar Works Ltd.

The Amuru District Land Board recently allocated some 40,000 ha in Amuru District to Amuru Sugar Works Ltd., a subsidiary of a major Ugandan conglomerate (Madhvani Group), and other parties, including a major general and a member of the Amuru District Land Board (Gulu High Court 2012). The land allocated to Amuru Sugar Works Ltd. includes 20,000 ha for a sugarcane plantation and associated factory. However, no production has begun on the plantation because of an on-going dispute over rights to the land allocated. While the UIA was not involved in this acquisition, it illustrates some of the challenges posed by Uganda's complex land tenure context and suggests that further protections for customary rights holders may be required.

The Madhvani Group apparently approached the president directly to acquire land for a sugarcane plantation in Amuru District (Acholi Religious Leaders Peace Initiative 2011, quoted in Zeemeijer 2011). According to a February 2008 letter addressed to the managing director of a Madhvani Group company in Jinja, Madhvani's investment proposal was approved by the cabinet ministers conditional on the following: (i) a "relevant authority" would allocate Madhvani Group 20,000 ha for a nucleus estate; (ii) the Government of Uganda would purchase and hold forty percent of the shares in the sugarcane investment; (iii) both the Government and Madhvani Group would "jointly solicit financing from international agencies for the project"; and (iv) the project would engage local people as outgrowers for the sugar factory (Eswar 2011).

In response to this letter, in March 2008, the Madhvani Director of Corporate Affairs wrote the Secretary of the Amuru District Land Board requesting that it allocate 20,000 ha at a site "adjacent to the Nile as adequate water is required" (Eswar 2011). The Amuru District Land Board subsequently allocated the requested land to Madhvani Group through Amuru Sugar Works Ltd., a subsidiary established to implement the proposed sugarcane investment. However, the ownership of this land is the subject of a case that was recently decided by the High Court of Uganda at Gulu (Gulu High Court 2012).

³ Exchange rate based on XE Historical Currency Converter rate for August 1, 2008 (XE 2012).

According to the investment application and the respondents in this case, which include Amuru Sugar Works Ltd., the owner of the allocated land is the Amuru District Land Board. However, the applicants in this case, who represent the people living in the area allocated to Amuru Sugar Works Ltd., claim that these lands are held privately under customary tenure (Gulu High Court 2012). Residents in Amuru District, and throughout northern Uganda, were previously displaced by the government's 20-year war against the Lord's Resistance Army (Figure 1). As a result, many lands remained idle while residents were forced into internally displaced persons camps, and residents have only recently begun returning to their land.

The Land Act does not list evidence of physical presence as a prerequisite for customary tenure (Section 3(1)(a-h)). Nonetheless, the Ugandan High Court in Gulu ruled that the District Land Board had the authority to manage the land on behalf of the people because the disputed land had appeared vacant and idle on a recent site visit (Kidega et al. 2012). This case raises serious concerns about the government's authority to acquire customary lands for allocation to private investors and suggests that existing safeguards to protect the rights of customary landholders may be insufficient. The ruling will reportedly be appealed to a higher court (Kidega et al. 2012).

These three recent land acquisitions illustrate the diversity of mechanisms through which investors acquire land for agricultural production in Uganda and offer insights into some of the challenges presented by this process. While three examples can hardly be deemed representative, it is clear that there is no standard process through which investors acquire land. It is hypothesized that the variety of mechanisms through which investors acquire land could lead to different investment outcomes. The next section will explore some of the social and environmental outcomes of recent investments.

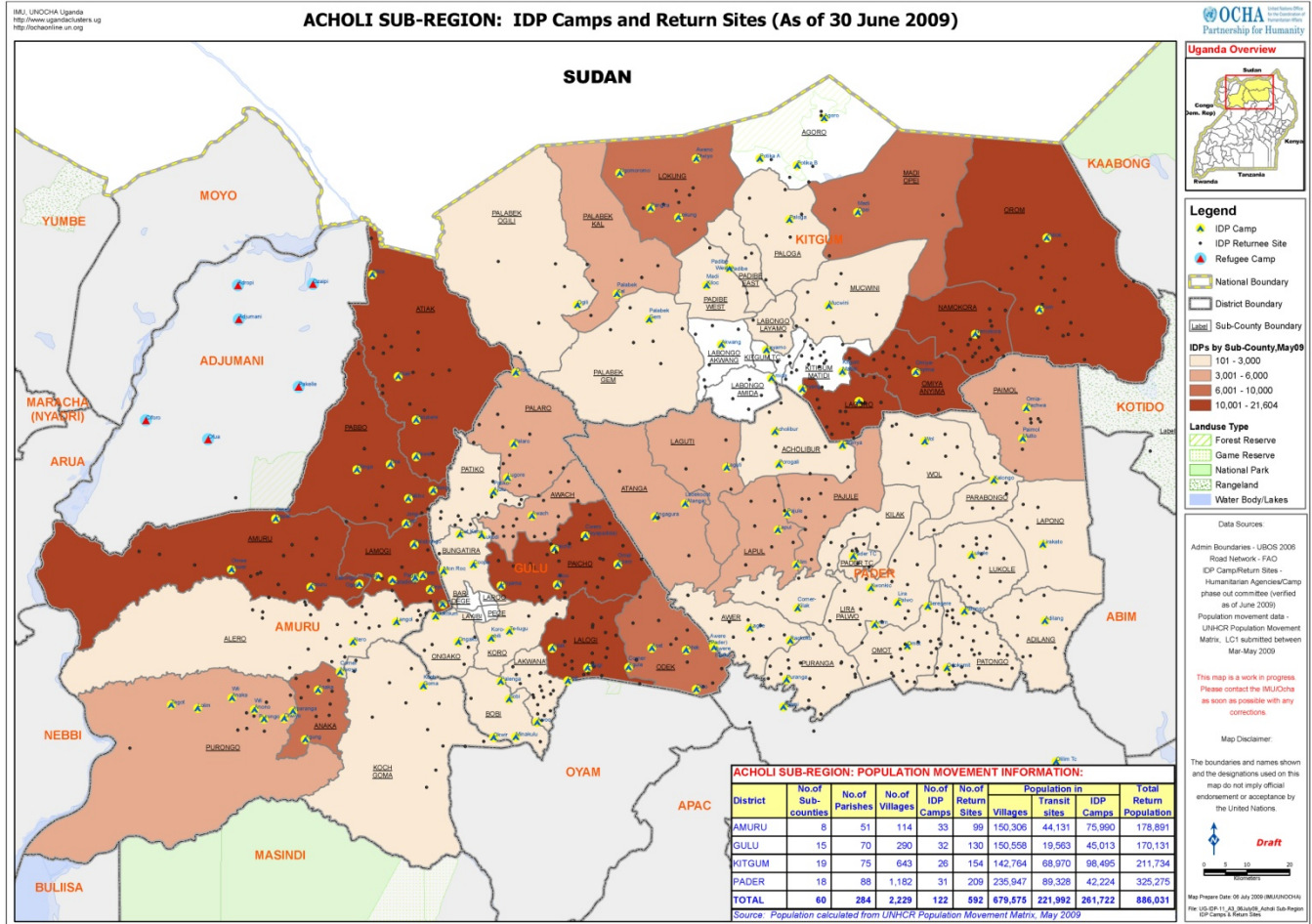


Figure 1: Map of IDP camps and return sites in the Acholi sub-region as of June 30, 2009.
Source: UN OCHA 2009

Social and environmental outcomes of large-scale land acquisition projects

This section will present available evidence on the social and environmental outcomes of recent large-scale land acquisitions in Uganda. Due to time and budget constraints, it was not possible to complete a balanced review of the social and environmental outcomes of recent agricultural investments. However, this section will provide some evidence from recent field research and news reports in Uganda. Future research should seek to obtain suitable baselines for social and environmental indicators that are consistently monitored throughout investment implementation.

DEVELOPMENT AND POVERTY REDUCTION OUTCOMES

Although the Investment Code Act directs the UIA to approve investment applications based at least in part on their contribution to “locally and regionally balanced socioeconomic development” (Section 12(e)) and “the creation of employment opportunities in Uganda” (Section 12(c)), the UIA does not collect statistics on either of these outcomes. In fact, the UIA does not even have sufficient resources to determine which approved investments were actually in operation on the ground (Mitti 2011). As such, the only official investment statistics collected by the UIA are based on investment applications. According to these statistics, over 95,200 jobs were expected to be created in 2010 by the 50 approved investments in the agriculture, hunting, forest and fisheries sector (UIA 2011). The UIA has no information on how many of these jobs were actually created.

In the absence of official information on aggregate development outcomes from recent agricultural investments in Uganda, this section will present evidence from selected case studies. Appendix 2 details the employment and social services provided by six recent agricultural investments profiled by Zeemeijer (2011). As this table shows, the vast majority of jobs created are casual and unskilled positions that are typically filled by local residents. In addition, each of the projects created some permanent or contract staff positions, some of which are filled by international workers.

The proportion of permanent/contract workers, casual laborers, and outgrowers/smallholders varies considerably by investment (Figure 2). The Ziwa Ranchers Ltd. cattle ranch is the only investment that hires only permanent or contract workers, while the company’s sugarcane plantation is staffed almost exclusively by casual laborers. In contrast, Mukwano Agro Project Ltd. operates mostly through contracted outgrowers. Given that most casual laborers on the studied farms earn less than \$1.25 per day (roughly \$125 annually), it is noteworthy that outgrowers are earning between about \$160 and \$175 annually (Zeemeijer 2011).

In addition to income, the investments managed as outgrower schemes have had a number of other positive benefits. Some benefits of the Mukwano Agro Project Ltd. include, for example, the formation of producer organizations to harness economies of scale by procuring inputs and marketing produce

collectively; improved access to agricultural loans; and the empowerment of women, who have acquired leadership and entrepreneurial skills (Mwesige 2009). The Kaweri Coffee Plantation rejuvenated Uganda's coffee sector, helped outgrower farmers improve both the quantity and quality of coffee produced in the area, and linked farmers directly to export markets to increase their profits (Zeemeijer 2011). Both Oil Palm Uganda Ltd. and Mukwano Agro Project Ltd. also provide local farmers with training on seeds, fertilizers, marketing, and harvesting and have helped improve their productivity and marketing (Zeemeijer 2011). Finally, many of these projects have led to considerable investments in local infrastructure, including roads and other transport links (e.g. ferries to Bugala Island), electricity, and water provisioning. However, the extent to which these investments benefit the area beyond the nucleus estate varies (Zeemeijer 2011).

PREVIOUS LANDHOLDER OUTCOMES

Several case studies of recent land acquisitions profile the impacts on previous landholders to varying degrees. This section will briefly review results from four recent acquisitions and point to areas of further research that will be required to better understand impacts on previous landholders. The four investments profiled below are Kaweri Coffee Plantation, Mukwano Agro Project Ltd., Oil Palm Uganda Ltd. and Ziwa Ranchers Ltd.; all details presented are based on literature review only.

As discussed above, **Kaweri Coffee Plantation** acquired rights to some 2,512 ha in Mubende, but ownership to 538 ha of this area is disputed. Kayiira (2001) documented the claims of 392 families, a total of 2,041 people, whom he reports were forcibly removed without compensation from these 538 ha. The Kaweri Coffee Plantation manager argues that half of those evicted accepted compensation (Zeemeijer 2011). However, Kayiira (2001) reports that in August 2001 the Ugandan army removed these people without compensation and by force, including physical torture and property looting. According to Kayiira (2001), a local primary school was looted, crop fields were destroyed, and properties were damaged, including a church building and several houses and shops. All this apparently occurred under the supervision of the Resident District Commissioner, acting on behalf of the President and Government in the District (Kayiira 2001). A recent review of this case completed by the FoodFirst Information and Action Network (FIAN) found that many evictees "subsist on the border of the plantation in makeshift homes" or live in neighboring areas where they farm small plots "insufficient to provide their families with adequate food" (Pieper 2011, p. 1). In 2002, the evictees sued the Attorney General and Kaweri Coffee Plantation and demanded compensation and land restitution, but as of 2011 the case had not yet been decided (Pieper 2011).

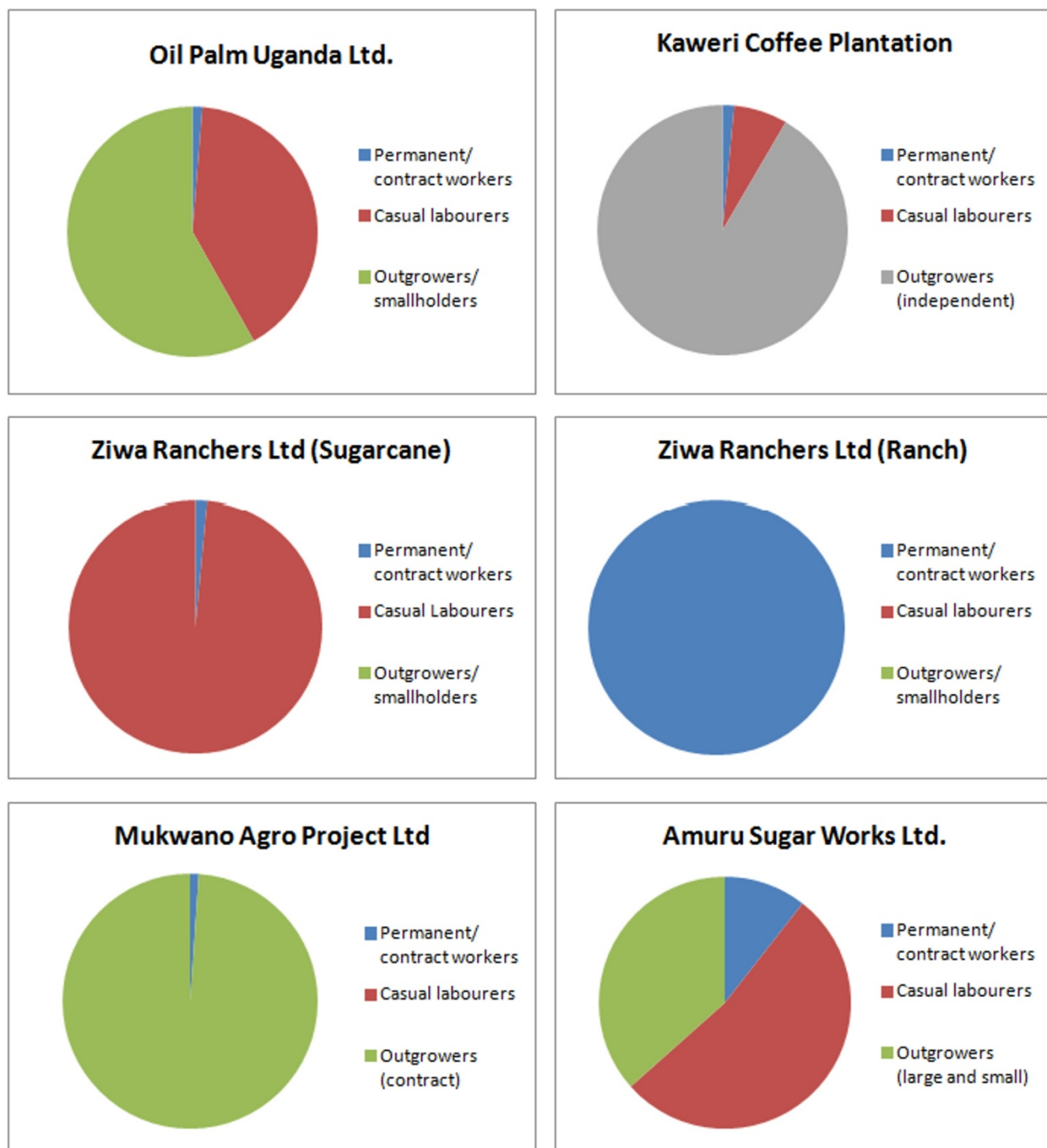


Figure 2: Breakdown of employment types for selected investments.
Source: Zeemeijer (2011)

In contrast, the **Mukwano Agro Project Ltd.** appears to have had quite positive impacts on landholders by incorporating them as outgrowers in the investment. Rather than acquiring land for production

outright, the company contracts with some 22,000 farmers in the Lango Region, Lira District, to produce sunflower seeds for commercial oil production. This investment was previously supported by the United States Agency for International Development (USAID) and the Danish foreign aid agency (Danida), and since 2008 the Dutch aid agency SNV has worked with the Mukwano outgrowers to strengthen their producer organizations (Zeemeijer 2011). SNV reports a number of positive outcomes for these landholders, including the creation of producer organizations that can exploit economies of scale through bulk input purchasing; improved margins (ten percent per household) for farmers within the producer organizations; and increased access to agricultural loan guarantees for well-organized producer organizations (Mwesige 2009). As mentioned previously, the outgrowers earn roughly \$159 annually and also benefit from Mukwano's extension services (Zeemeijer 2011). Outgrowers interviewed by Zeemeijer (2011) reported a number of benefits from the investment, including improved incomes, increased economic activity in the area⁴, and a "balance between [Mukwano's] profit making and their social responsibility" (p. 164).

Oil Palm Uganda Ltd. operates partly through outgrowers cultivating 3,500 ha, but the company also acquired 6,500 ha of land for its nucleus estate (plantation). It appears that the Land Acquisition Taskforce created to acquire land for the plantation made reasonable efforts to ensure that the previous land owners received fair land prices in exchange for selling their properties for the investment (IFAD 2011). It is noteworthy, however, that land prices increased four times over the course of the acquisition process, which contributed to increased competition for land both within families and between *mailo*⁵ owners and tenants (IFAD 2011, UCSD 2007). While information on the outcomes for owners and tenants of lands acquired by Oil Palm Uganda is limited, a 2007 article by the Uganda Coalition for Sustainable Development (UCSD 2007) indicated that some farmers had begun cultivating lands within 200 m of the lakeshore and along road reserves. The article does not specify whether these farmers previously owned or occupied lands managed by Oil Palm Uganda Ltd. Still, it does suggest that the project may have led to increased land pressure on Bugala Island. Moreover, interviews with local residents in 2011 indicated that some villagers had lost their gardens without compensation (Zeemeijer 2011). However, it is not clear whether the villagers were tenants or owners of the destroyed gardens or who was responsible for their destruction.

Significantly, cattle keepers living in the area of land acquired by **Ziwa Ranchers Ltd.** have lost water access because the project fenced off a borehole as well as the farm's border along the Kafu River, which had previously provided water access for local cattle keepers (Zeemeijer 2011). The land acquired for this project was previously owned by the government and used by the Ugandan Peoples Defense Force, which allowed local cattle keepers to graze their Ankole cattle there (Byakagaba 2011). According to the project manager, there were around 500 families on the land who "were compensated at government rates" and evicted with the help of the district security committee when Mukwano bought the company and its land (Iqbal 2011). Mukwano apparently still has "problems with approximately 100 squatters" who do not have title (Iqbal 2011). Mukwano does not allow local cattle to graze on the same lands as their cattle to prevent disease transmission (Iqbal 2011). Although the company maintains it is not responsible for compensating anyone, Mukwano apparently seized local

⁴ As reflected by new businesses and trading centers and increased land ownership.

⁵ As previously mentioned, much of the land on Bugala Island is subject to *mailo* tenure, where both owners and tenants have rights protected by the Land Act (Zeemeijer 2011).

cattle found grazing on company land and compensated their owners, who have since moved out of the region (Wallington 2011). The company also has plans to build four dams for local use and to develop a corridor so that local cattle can access river water (Iqbal 2011). Further interviews with cattle keepers and other informants would be required to fully understand the implications of these changes on local livelihoods.

Despite the limited information available on outcomes for previous landholders, it is clear from these few case studies that the picture is quite mixed. It appears that outgrower schemes, when implemented in partnership with development agencies, can empower smallholders through strong producer organizations to reduce input costs, improve crop management, and increase their incomes. In contrast, the evidence available suggests that projects that displace large numbers of people have had significant negative impacts on those displaced, including loss of property and livelihood, often without compensation. These results suggest that future agricultural investments would better meet Uganda's national poverty reduction objectives if implemented through local outgrower schemes. Quantitative impact analysis to understand the positive and negative impacts of recent and future agricultural investments would benefit all stakeholders and is strongly encouraged.

ENVIRONMENTAL MANAGEMENT OUTCOMES

Few analyses of recent large-scale land acquisitions for agriculture have highlighted environmental management outcomes. However, Zeemeijer (2011) does provide some indication of the environmental concerns related to Amuru Sugar Works Ltd. and Oil Palm Uganda Ltd. Zeemeijer (2011) does not detail environmental outcomes from her other four case studies, but their direct impacts on biodiversity are expected to be minimal given that these projects were largely implemented in areas already used for farming. In addition to these case studies, the environmental impact statement for Oil Palm Uganda Ltd. was consulted for further insights; the other two environmental impact statements available at the NEMA library were either too old (Olweny Swamp Rice Irrigation Project) or too small (Rosebud Limited) to be considered here.

Documented impacts of existing investments

The areas that experienced the heaviest fighting in northern Uganda host perhaps some of the last remaining biodiversity outside protected areas (Winterbottom and Eilu 2006). The area slated for the **Amuru Sugar Works Ltd.** plantation contains riverine forests and woodlands and supplies local communities with fuelwood (Ker Kwalo Acholi 2008). The plantation site is located adjacent to the Nile River, and the project will require large amounts of freshwater for irrigation (Eswar 2011). A report by a local community organization found that the project is expected to lead to loss of habitat, water scarcity, water pollution, degraded soils, and possibly air pollution (Ker Kwalo Acholi 2008).

The **Oil Palm Uganda Ltd.** project is located on Bugala Island in Kalangala District. Bugala Island is the largest of the 84 Ssesse Islands located in the northwest part of Lake Victoria. The main land cover is secondary forest, although grasslands, woodlands, wetlands, and bushlands are also found on the island. Overall, the island's vegetation can be grouped into four main zones: upper forests, grasslands,

lakeside forests, and aquatic vegetation. While the Ssesse Islands are not particularly well known for their mammalian diversity, *Pelomys isseli* is endemic to the islands, and the sitatunga (*Tragelaphus spekei spekei*) is also important. The Ssesse Islands harbor a total of 122 butterfly species, including one species and two subspecies endemic to the islands: the nymph *Acraea simulata*, *Thermoniphas togara bugalla* and *Acraea epaea angustifaciata*. There are also important bird habitats on Bugala Island, particularly for water birds, and a total of 75 bird species were recorded in the environmental assessment study area and its environs. Bird species characteristic of Bugala Island include the Black-lored Babbler (*Turdoides sharpei*), Red-chested Sunbird (*Nectarinia erythrocerca*) and Northern Brown-throated Weaver (*Ploceus castanops*) (VODP 2003).

The 2003 environmental impact statement⁶ submitted for Oil Palm Uganda Ltd. predicted a number of potential environmental impacts, in particular those related to the project's clearing of indigenous vegetation on the island. A summary of the potential environmental impacts and proposed mitigation measures identified is provided in Appendix 3 (VODP 2003). The environmental impact statement also notes that use of chemical fertilizers and herbicides will be limited, and the project design called for an integrated pest management program to minimize the potential negative impacts of chemicals (VODP 2003). The palm oil mill for this project was designed to minimize waste and reuse the residual effluent as boiler fuel for steam and electricity production and as fertilizer.

The project had initially planned to plant oil palm in protected forest reserves on Bugala Island, but the President eventually rejected the degazettement of several forest reserves after intense criticism and protests by environmentalists and on the advice of the World Bank (VODP 2003; Mongabay 2007). Some two years later, BIDCO, one of the main project partners, requested permission to plant oil palm in grassland areas within forest reserves on the island (Butler 2010). The Minister of State for Environment voiced her concerns over this proposal, and in 2012 IFAD—one of the project's primary investors—reported that no protected areas had been affected by the project (Butler 2010; Musasizi 2012).

Nonetheless, according to local NGOs, the project has had a number of negative impacts on the environment in Bugala Island, including increased pressure on central forest reserves to obtain forest products, biodiversity loss, increased soil erosion, pollution due to agrochemicals, reduced wind breaks, and negative impacts on local rainfall and temperature (UCSD 2007; Zeemeijer 2011). In 2009, the Kalangala District natural resources officer reported that the project had deforested 40% of the natural forest cover on Bugala (Michael 2009). In addition, the Kalangala NGO Forum (KADINGO) accused the project of encroaching on national forestry land beyond the land it was allocated by the Ugandan government. The loss of indigenous forests on Bugala Island has reportedly negatively impacted local biodiversity, including monkeys, snakes, antelopes and water bucks (NAPE and FoEI 2012). In the absence of natural forests, monkeys have apparently invaded local farmlands, including oil palm plots, in search of food. To avoid further conflicts, local authorities have ordered the remaining monkeys to be killed (NAPE and FoEI 2012).

In 2009, KADINGO hired the Uganda Coalition for Sustainable Development (UCSD) to determine whether BIDCO was in compliance with the EIA requirements mandated by NEMA. The UCSD found

⁶ Environmental impact statements were also prepared in 1995 and 2000; only results from 2003 are presented here.

that the company was clearing large areas of forest at once, rather than in phases, which was causing soil erosion and siltation into the island's streams and rivers that flow into Lake Victoria (Michael 2009). UCSD also found that the project is draining wetlands on Bugala Island, which could lead to further erosion and run-off because of the lost filtration services provided by the wetlands (Michael 2009).

There are reports also that neither the company nor the outgrowers selling oil palm fruits to BIDCO are respecting the 200 meter buffer zone around the lake shore. Instead, they are reportedly cutting down the natural forest and replacing it with oil palm, which could lead to increased erosion, siltation, and agro-chemical run-off into Lake Victoria (UCSD 2007; Michael 2009). However, the outgoing IFAD Country Programme Manager claims the project has maintained the 200 meter buffer zone (Musasizi 2012).

Finally, existing documentation of the **Kaweri Coffee Plantation** suggests that the company has made efforts to protect local biodiversity, although the measures adopted may not go far enough to prevent biodiversity loss. A 2002 study of plant species located on the area allocated to the plantation found a total of 215 tree species, four shrub species, and 403 species of non-woody plants, including two orchids. More than 60% of the tree and shrub species surveyed were rare, although many species were adapted to roadsides and farmlands, as a large part of the concession had already been cleared of its indigenous vegetation and degraded by settlement (Obua et al. 2005). The authors recommended that 50% of the remaining forest area be set aside for conservation. Ten years later, the company has left 550 ha (roughly 20%) of their concession as "natural bio-corridors" and also maintains 70,000 trees to provide shade in the coffee areas (Kaweri n.d.).

Potential impacts of future investments

Recent deforestation trends in Uganda have been blamed at least partly on industrial activities, including commercial agriculture (Butler 2010). Between 2000 and 2005, Uganda lost an average of 86,400 ha of forest (2.1% of its remaining forest cover) per year, and between 1990 and 2005 over 26% of Uganda's forests was lost. While most of this deforestation can be attributed to subsistence agriculture activities and fuelwood collection, industrial activities are becoming an important driver of deforestation. This loss is particularly troubling given Uganda's rich biodiversity, including more than 5,000 plant species, 345 mammal species, and 1,015 bird species (Butler 2010).

Due to the lack of data on approved projects in wetlands, it was not possible to investigate specific impacts on wetland ecosystems and biodiversity. However, based on the evidence from draining wetlands on Bugala Island, it is probable that this practice could lead to further erosion and run-off because of the lost filtration services provided by the wetlands (Michael 2009). Other potential impacts of agricultural investments located in wetlands could include changes in hydrology, biodiversity (especially birds and fish), and local access to freshwater and other wetlands ecosystem services, such as papyrus and other resources used in subsistence and local commercial activities (Wetlands Management Department et al. 2009).

A recent survey of birds and woody plants in commercial plantations in southern Uganda found that the plantations were characterized by "very few trees and only 10% of the original bird species"

(Bolwig et al. 2006, p. 1). Highly specialized and threatened bird species were more negatively affected than less specialized species, which suggests that 'species-sensitive' land use regulations will be needed to ensure that Uganda's rich bird diversity can continue to flourish outside protected areas. The authors also found that bird biodiversity losses were largest during the initial clearing of forested areas for plantations, suggesting that investments that clear natural forests likely have the largest impacts on biodiversity and ecosystem services.

Conclusion

This report has demonstrated that recent large-scale agricultural investments in Uganda have acquired land through diverse mechanisms that do not always involve the Uganda Investment Authority, which is explicitly authorized to help investors acquire land by the Investment Code Act of 1991. In many cases, these land acquisitions have led to conflict with local stakeholders, and these conflicts have sometimes delayed investment implementation. Moreover, the evidence available suggests that investments that displace existing land users can have significant negative impacts on local livelihoods, while clearing natural vegetation often adversely affects biodiversity.

On balance, it appears that outgrower models—where investors contract with smallholders to cultivate desired crops on existing farmland instead of acquiring the land directly—may be more beneficial to existing landholders in terms of both tenure security and income potential. To the extent that environmentally-friendly production practices are implemented on existing farmland, outgrower models could also potentially reduce the negative environmental impacts associated with clearing natural vegetation for cultivation. Further research based on quantitative impact analysis is necessary to test these conclusions, and the Government of Uganda should take steps to monitor investment impacts on local livelihoods, biodiversity, and ecosystem services. In the meantime, it would appear preferable to promote outgrower models over direct land acquisition to ensure that agro-investments lead to sustainable and equitable outcomes for Uganda’s people and biodiversity.

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Appendices

Appendix 1: Overview of recent land acquisitions for agriculture

Company	Origin	Location	Size (ha)	Land acquisition process
Oil Palm Uganda Ltd.	BIDCO Ltd., Kenya	Bugala Island, Kalangala District	10,000	Public-private partnership with the Government of Uganda; Land Acquisition Task Force (including UIA and GoU), acquired land on behalf of the Uganda Land Commission through purchase from private owners
Kaweri Coffee Plantation	Neumann Kaffee Gruppe, Germany	Kitemba, Mubende District	2,512	Lease through UIA
Ziwa Ranchers Ltd.	Mukwano Group of Companies, Uganda	Masindi District	15,378	Mukwano Group of Companies bought the shares of Ziwa Ranchers Ltd. from Captain Joseph Charles Roy and Daisy Asaba Roy in 2009 and 2010
Kiryandongo farm	A.K. Oils & Fats (U) Ltd., Mukwano Group of Companies, Uganda	Masindi District	2,833	Privatization. Farm belonged to the Government of Uganda and was used by the Ugandan Peoples Defense Force (UPDF)
Mukwano Agro Project Ltd.	Mukwano Group of Companies, Uganda	Lira District	17,000	Mukwano does not own the land, but signs contracts with app. 20,000 outgrowers in the Lango region
Amuru Sugar Works Ltd.	Madhvani Group of Companies, Uganda	Amuru District	30,000	With approval of the Government of Uganda, Madhvani requested a lease of 20,000 ha through the Amuru District Land Board ⁷ .

Source: Zeemeijer (2011).

⁷ A case brought against the land allocated to Amuru Sugar Works and other parties on behalf of the Acholi communities living in the area claimed that the land allocated was in fact customary land, and should therefore not have been allocated by the District Land Board. The High Court in Gulu disagreed and found that the land transfer was legal; however, an appeal case is expected to be filed (Barnabas 2012, Gulu High Court 2012, Kidega et al. 2012).

Appendix 2: Overview of development outcomes in terms of employment and social services

Indicator	Oil Palm Uganda Ltd	Kaweri Coffee Plantation	Ziwa Ranchers Ltd.		Kiryandongo Farm	Mukwano Agro Project Ltd.	Amuru Sugar Works Ltd.
			Sugarcane	Cattle			
Permanent/contract workers (incl. staff)	50 staff (of which 3 int'l)	18 managers (Kenya), 220 permanent staff	60 (international)	667 (incl. staff) (from local communities and Buyoro Kingdom)	200 (incl. staff)	90 permanent staff and over 150 contract workers	25 staff (foreign), 1175 permanent local employees (semi-skilled)
Casual laborers	> 1,600 (out of 2,500 planned)	3,000 per season. In May 2011: 1,100 workers (200 in other districts)	4,000 (3,500 surrounding communities and 400-500 Buyoro Kingdom)				6,000
Working day casual laborers	6.00 – 13.00 without a break 15.00-18.00 is overtime	Based on tasks. Max 2 tasks a day	*	*	9.00 – 17.00, six days a week (weeding)		*
Gender casual laborers	50% women (pruning and weeding); 50% men (harvesting)	*	*	*	80% single women between 18-21 years		*
Salary casual laborers (UGX)	2,200/day + 500 food subsidy + overtime: max 1,000 extra	2,000; 2,790 or 3,000-3,500/d	*	*	2,500/day. Double paid on Sunday		*
Salary casual laborers (USD)	0.84 + 0.19 + 0.38	0.79; 1.11; or 1.19-1.39/d	-	-	0.9/d		-
Salary in other functions (UGX)	Driver: 4,000-6,000/day, plus 300 for each ton transported	Tractor driver: 90,000/month (5 d/wk, 07.00-16.00. Weekends are overtime @ 20,000 extra/mo)	*	*	*	Managers: 2-4 million/month; extension coordinators: 400,000-800,000/month	

Salary in other functions (USD)	35.75/month + max 7.94/mo.	760-1,520/month (managers); 152-304/month (coordinators)
Holidays/leave	No leave for workers; paid per day of work. At least 50% takes leave of absence during Christmas for +/- 2 weeks	*
Social services nucleus estate workers	Free health services but no pay; free housing	Shelter, houses for staff, dispensary/clinic/small hospital, school for children of workers and neighboring communities, clean water source, club, playground facilities
	Clinic for minor treatment, free housing for permanent staff, electricity, clean water and medical facilities	Free lunch
	Free health services but no pay; free housing	-
	Free health services but no pay; free housing	Housing or housing allowance, subsidized primary education ⁸ , free medical treatment ⁹ , housing incl. water and lighting, recreational facilities
Labor union	No	No
	Yes, for permanent staff. 50% members. Union for casual laborers is in an infant stage and not recognized by Kaweri.	*
Outgrowers (contract/independent)	2,294 (incl. smallholders) with contract; women	22,000 with contract in Lango Region
	14,574 independent smallholder coffee farmers in Mubende	3,000-4,000 small outgrowers; 100-

⁸ Max 4 children/employee

⁹ Employee's spouse and 4 children <18, up to a reasonable limit

represent 32% of smallholders and 26% of outgrowers

150 large outgrowers

Earnings (est. in UGX) *	459,300 annual net income (based on average farmer with 300 coffee trees)	-	-	-	417,870 net income/season (3 acres, owns land, harvest by hand, uses fertilizer)	650,000/ha/year, dependent on sugar price and efficiency
Earnings (est. in USD) *	174.53	-	-	-	158.79	247
Services to outgrowers	Extension services Through Coffee Alliance Trust	-	-	-	Through extension services Mukwano	*

Source: Zeemeijer (2011).

Appendix 3: Potential impacts and proposed mitigation measures for Oil Palm Uganda Ltd.

Potential impacts	Mitigating measures	Implementing institutions
	Vegetation	
Loss of existing natural vegetation	<ul style="list-style-type: none"> Setting up woodlots for energy needs Phased clearance of natural vegetation Establishment of oil palm plantation (tree cover will add to forest cover) Gazetted forests will not be converted Planting cover crops 	<ul style="list-style-type: none"> District Environment Office District Agriculture Office District Forest Office Developer
Destruction of environmentally sensitive areas such as swamp forests	<ul style="list-style-type: none"> River banks, lakeshores left intact Location of the factory to avoid water pollution Treatment of oil mill effluent 	<ul style="list-style-type: none"> District Environment Office District Forest Office Developer
Disposal of woody debris	<ul style="list-style-type: none"> Wood from species such as <i>Uapaca guineense</i> and <i>Maesopsis eminii</i> will be converted into timber for construction Other debris will be used as compost 	<ul style="list-style-type: none"> District Environment Office District Agriculture Office District Forest Office District Engineering Department
Decline in timber	<ul style="list-style-type: none"> Sustainable harvesting regimes in production zones in forest reserves to ensure 	<ul style="list-style-type: none"> District Environment Office

Potential impacts	Mitigating measures	Implementing institutions
production	<ul style="list-style-type: none"> continued timber supply Some private forest will not be converted hence will continue to supply timber 	<ul style="list-style-type: none"> District Agriculture Office District Forest Office
General decline in private forest cover leading to reduced local availability of forest products	<ul style="list-style-type: none"> Forest reserves to supply some needs under the collaborative forest management approach Utilisation of other private forest Encouraged reservation of trees in farmland Agroforestry programmes Afforestation programmes 	<ul style="list-style-type: none"> District Environment Office District Agriculture Office District Forest Office
Degradation of soil from erosion, and removal of vegetation cover	<ul style="list-style-type: none"> Temporary erosion control measures: contours, mulching exposed areas Permanent erosion control measures: reserve forest patches in erosion prone areas; plant with <i>Paspalum notatum</i> on sides of tracks and roadsides; plant cover crop e.g. <i>Calliandra</i> or <i>Pueraria</i> that are useful as mulch/fodder Closed canopy crop should reduce erosion to minimal levels in long run 	<ul style="list-style-type: none"> District Environment Office District Agriculture Office District Forest Office
Mammals, butterflies, amphibians and reptiles		
Loss of habitat for mammals	<ul style="list-style-type: none"> Phase vegetation clearing to allow for adaptation of certain species 	<ul style="list-style-type: none"> Bidco
Behavioural change leading to change of species into pests on palms	<ul style="list-style-type: none"> Development and implementation of a comprehensive pest control program The lake shores and associated vegetation should be preserved 	<ul style="list-style-type: none"> Bidco Uganda Wildlife Authority
Loss of species due to pesticide/herbicide use	<ul style="list-style-type: none"> Use of integrated pest management Protection of key habitat areas from pesticide/herbicide exposure 	<ul style="list-style-type: none"> Bidco
Avifauna		
Loss of habitat	Develop outside Important Bird Areas	Bidco
Soil erosion and siltation	Leave a buffer zone of 200 m between the development and the lake	Bidco
Hydrology		
Lowering of water table	<ul style="list-style-type: none"> Provision of boreholes Utilisation of lake water 	<ul style="list-style-type: none"> Bidco District local government
Climatological change	<ul style="list-style-type: none"> Retain forest cover along lake shores, streams, and head waters 	<ul style="list-style-type: none"> Bidco

Potential impacts	Mitigating measures	Implementing institutions
(strong wind and erosion)	<ul style="list-style-type: none"> • Incorporation of good mechanical and agronomic soil and water conservation systems 	<ul style="list-style-type: none"> • Bidco

Source: Oil Palm Development Project Environmental Impact Statement (2003)