



Land for agricultural development in the era of 'land grabbing'
A spatial exploration of the 'marginal lands' narrative in contemporary Ethiopia

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Abstract

In response to concerns over the potential of land leases for new agricultural projects to displace rural populations and impact food security, the Ethiopian government asserts that only 'marginal', 'barren' or 'wasteland' is being leased to investors. This paper draws on a wide variety of source material in order to untangle the land classification of 'marginal' land as it is used colloquially across Ethiopian institutional and policy environments and compares this promoted understanding of marginality to the socio-cultural and biophysical characteristics of actual land areas either already transferred to investors or currently deposited in the federal 'land bank' to be allocated at a future time. This analysis reveals that 'marginal' lands are not unused and/or degraded as often implied but are potentially productive lands that overlap national park boundaries or are currently supporting nomadic and semi-nomadic livelihoods. In addition, this paper contends that marginal lands are not categorized according to any shared criteria, but applied to the lands in weaker regions that are not being put to highest value use according to the state's market-oriented developmental strategy.

About the Author

Rachel Nalepa is a PhD student in the department of Geography and Environment at Boston University. Her dissertation research is focused on the modernization of contemporary Ethiopia through large-scale food and biofuel projects. In particular, she is interested in the politicization of geospatial technologies and the categorization of 'marginal' and 'unused' agricultural lands to legitimize land deal politics and land redistribution in both a local context and at a national level.

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1 Introduction

Ethiopia is one of the many developing countries receiving an increased amount of attention in the ongoing conversation of the 'global land rush' or 'global land grab'. Both domestic and foreign investors continue to seek leases for new, large-scale agricultural projects on Ethiopia's perceived abundant and available fertile lands. The Ethiopian state, represented by the Ethiopian People's Revolutionary Democratic Front (EPRDF), legally owns all the land in the country and is complicit: leases for new projects aim to both achieve food security through securing foreign exchange earnings to import food with a growing agricultural export economy and also facilitate technology and knowledge transfer to current smallholders in order to boost domestic yields and modernize the sector. Land leasing is a politically charged topic given that land is a highly precious asset in Ethiopia; smallholders comprise 85% of total employment and due to population growth and pervasive land degradation in many areas, land holdings are already less than 2 ha for nearly 90 percent of rural households (Gebreselassie 2012, Tamrat 2010). In response to this, the government has asserted that the only land appropriate to be allocated to investors is land interchangeably characterized as 'marginal', 'unused' or 'wasteland'. This response is particularly stressed in the case of biofuel projects given the states' sensitivity to the larger ethical and political tensions surrounding the appropriation or diversion of fertile land for fuel despite a chronically food insecure population (FAO 2010a).

Even though land is state property and these leases executed under legal auspice, the government has come under scrutiny as field evidence from ethnographically grounded studies have revealed that some of these allocated 'marginal' lands were already being used for a wide variety of purposes (see Horne 2012; Human Rights Watch 2012; Fisseha 2011; Demeke and Akilu 2008). Recent studies have also elaborated on the significance of the government's use of land transfers in the attempted re-appropriation of Ethiopia's 'unused' lowlands from their current use by pastoralists and shifting agriculturalists to settled capitalist farmers dedicated to export crops (Lavers 2012, Makki 2012). This collection of work suggests that 'marginal' is a convenient term not necessarily applied to capture the physical characteristics of the land itself or imply that it is absolutely unfit for food production (as is argued in the case of biofuels) but rather that it is not purposed to the highest value use according to the EPRDF's development plan. This has implications for both ethnic self-determination (a key tenet of Ethiopia's federal system) and for the fate of the lowland subsistence sector as the government creates an archipelago of capital enclosures for large-scale mechanized farming that 'maps onto older imperial socio-spatial and cultural hierarchies' (Makki 2012: 81, Lavers 2012).

This paper provides supportive physical evidence for these claims and further investigates the suggested (yet still unclear) link between 'marginal' land and 'marginal' populations in Ethiopia. The presumption is that the organization, labeling and representation of the material and social environment is an active, value-laden process and a critical, systematic consideration of these classifications has the potential to reveal more about the intentions of the state when it comes to land management and development policy.

This paper also makes a contribution to the broader literature by stressing the importance of integrating spatial information into studies on transferred lands. Investigations into the impacts of 'land grab' on domestic political economy often center on the *quantity* of land changing hands, even though land *quality* is just as important while considering the potential impacts of land deals on ecosystems and rural livelihoods. Investor interest is often directed to the best land in terms of water availability and irrigation potential, soil fertility, proximity to markets or availability of infrastructure (Cotula 2012) but without specific spatial information on these deals, we are not able to project this assumption beyond specific cases. Spatial information helps us to link transferred lands to the physical and socio-cultural information that characterizes them and to determine how they are currently being used and by whom. Spatial specificity also helps us move beyond the limitations

posed by the comparison of singular case studies in order to elucidate and empirically extrapolate broader trends through space and time. By situating land transfers and additional land marked to be allocated in the future, we are able to establish baselines from which to observe how increased investor interest may alter agrarian landscapes using geo-spatial technologies and tools such as remote sensing imagery and Geographic Information Systems (GIS).

This paper draws on a wide variety of source material in order to untangle the land classification of ‘marginal’ land as it is used colloquially across Ethiopian institutional and policy environments and compares this promoted understanding of marginality to the socio-cultural and biophysical characteristics of actual land areas either already transferred to investors or currently deposited in the federal ‘land bank’ to be allocated at a future time. Data was gathered between May 2011 and January 2013 and includes semi-structured interviews with government officials and employees, land management professionals, and academics, as well as unique datasets and spatial metadata gathered from government, open access and NGO sources. The first part of this paper discusses the evolving role of the central government in the land allocation process as well as how leased land or land intended for investors is being described colloquially. The remainder of this paper explores various narratives of marginality such as: ‘marginal’ as undervalued land user regimes, ‘marginal’ as unsuitable for food crops due to biophysical or socioeconomic constraints, and ‘marginal’ as degraded land.

2 Background

Ethiopia’s government is structured on a model of ethnic federalism, and up until five years ago, each of the country’s nine agro-climatically diverse, ethnically-delineated regions autonomously allotted land to investors according to their own criteria. This was in keeping with regions’ constitutionally granted responsibility to administer land that falls within their borders (Lavers 2012). A reported 3.5 million hectares were leased to investors from the late 1990s to the end of 2008 by regional authorities in a mostly *ad hoc* fashion (MoARD as cited in Rahmato 2011).¹

The dual food and fuel crisis of 2007/8 brought an increased interest in agricultural land and ‘soft commodities’ to Ethiopia from both domestic and foreign investors. This investment was welcomed by the EPRDF given that agricultural extensification was consistent with national poverty reduction strategies; just as ‘any Ethiopian who wants to make a livelihood from farming is entitled to have a plot of land free of charge...private investors, who wish to engage in large-scale agricultural activities, have a right of access to land on a long-term lease basis’ (MoFED 2003). The central government in Addis became alarmed, however, over the size and terms of a couple high profile, controversial land transfers in peripheral areas of the country.² Also of concern was the discovery that less than 20% of the 8,000 foreign and domestic applicants awarded land through regional governments between 1996 and 2008 had begun project implementation and many of the lands were being purposed for unapproved uses (Rahmato 2011).³ In response, the Agricultural Investment Support Directorate (AISD) was established in 2009 under the federal Ministry of Agriculture and Rural Development (MoARD) to manage any land requests from foreign investors and any domestic investor interested in more than 5,000 ha. Ostensibly, the goals of AISD include establishing uniform land prices, setting lease terms and monitoring project performance with the right to revoke land from investors if they

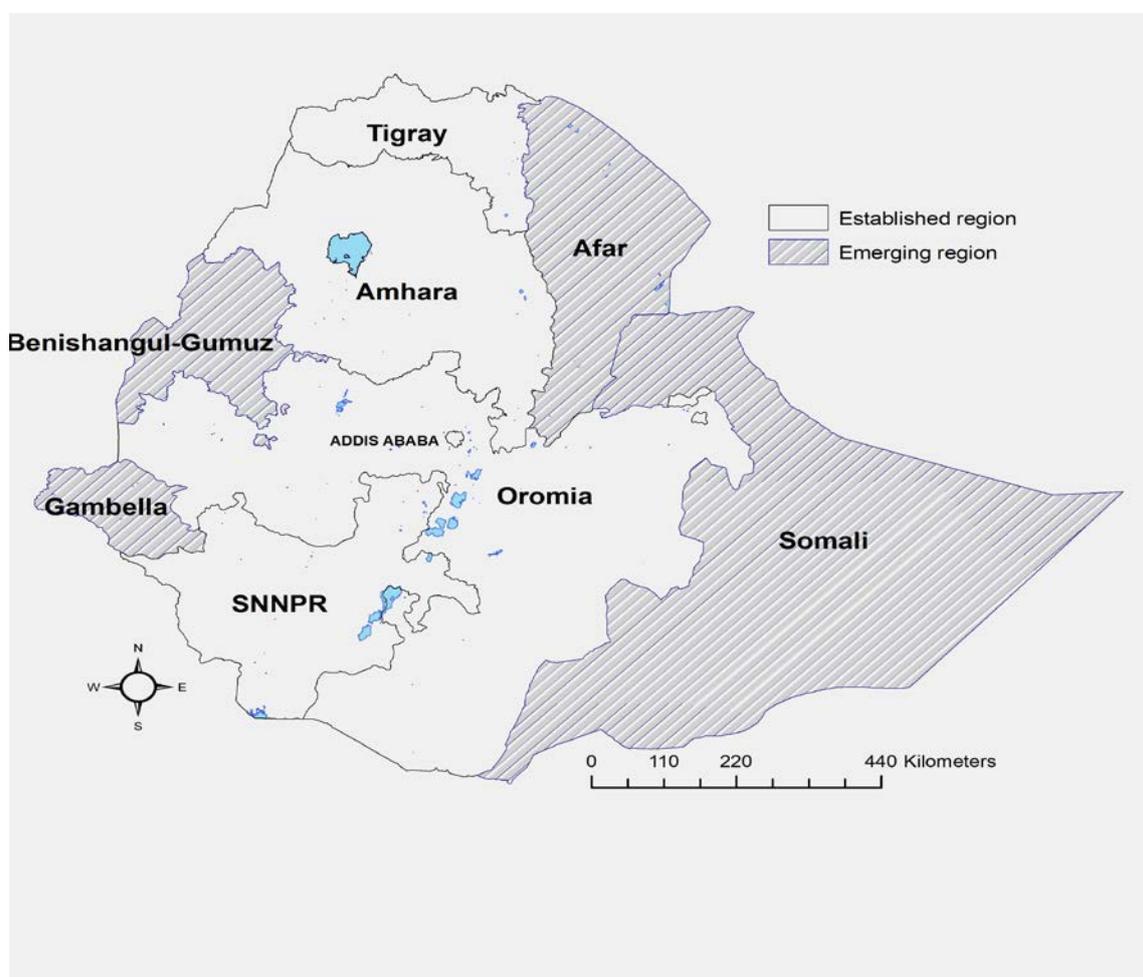
¹ Original sources removed or unable to be verified.

² These transfers included the 99-year lease of 300,000 ha in the region of Gambella to the Indian food processor, Karuturi Agro Products Plc. for around 1 USD/ha and an award to German-based company Flora Eco Power (now Acasis) that overlapped with Babile elephant sanctuary in the northwestern area of Oromia for a now failed biofuel project.

³ Rahmato cautions that the dataset from which the figures were taken at MoARD is not internally consistent and should be considered with this in mind.

are not performing up to their contract terms. According to an interview with a respondent working at the directorate, the creation of the AISD is considered a demonstration of political commitment to the 'weaker' or 'emerging' regions via redressing resource constraints and gaps in administrative capacity in order to protect their resources from speculation and exploitation (Respondent A 2013). This differs from other justifications government officials have given for the creation of the AISD which have included the desire to speed up land allocation compared to regional processes (Lavers 2012). Shown in Figure 1, these 'emerging' regions (in areas generally referred to as 'peripheral' regions or *'dar ager'* in Amharic) such as BG and Gambella are multi-ethnic regions historically characterized by poor administrative capacity, political marginalization and economic exploitation by the more established and ethnically homogenous regions named for the ethnonyms of their cultural majority (Makki 2012; Lavers 2012; Adegehe 2009; Hagman and Mulugeta; 2008; Donham 1986).⁴

Figure 1: Established and 'emerging' regions in Ethiopia



The AISD has also assumed the additional responsibility of cataloging appropriate land parcels to be allocated to investors through the creation of a federal land bank in what amounts to a partial re-centralization of the country's land resources. Though the directorate claims to be working in tandem with regional governments to identify available lands for the land bank, evidence would imply that some regions can claim much more agency in the process of choosing the location of

⁴ The region of Harari is heretofore not considered given its small size (~334 km² which is about 2/3 of the size of Addis Ababa) and the fact that it is predominantly urban.

available lands than others (Respondents A and B 2013). In the very near future, the MoARD is planning for the formation of an autonomous federal agency that will identify and clear lands for agriculture. It will also be responsible for selecting suitable crops and providing infrastructure such as electricity and roads to these designated areas that are being referred to as Agricultural Economic Zones (AEZ) in the regions of BG and Gambella (Mesfin 2013).

Since much of the leased land was intended to either produce food or biofuel products for export, concerns were raised over how this may impact food security in a country where approximately 40% of the population is considered undernourished (FAO 2010a). There was also the question of winners and losers; the speed at which these transfers were happening as well as the size of the land parcels being transferred, raised questions about how the 30% of the population without any formal recognition of their land use rights under the constitution would be affected (Stebek 2011). Only four of the nine regional states including Amhara, Oromia, Tigray and Southern Nations, Nationalities and Peoples' Region (SNNPR) have issued implementation legislation and proceeded with issuing land holding certificates that provide recognition to the rights granted to households under the Constitution. Even within these regions with more active titling initiatives, it is not clear if and how the constitutionally-granted landholding rights given to pastoralists are being implemented (Stebek 2011).

Government representatives aimed to ameliorate concerns that people were being displaced or having their livelihoods jeopardized by describing transferred land as well as land designated for future allocation as 'marginal'. For example, when questioned about land that had been awarded to a UK company investing in a *Jatropha* plantation, Ethiopian Mining and Energy officials called the land 'unusable' saying it was 'just marginal land' (Knaup 2008) insinuating that the land may be degraded to the point where it cannot support food crops. Yet, in other cases, what is often referred to as 'barren' or 'wasteland' is clearly suitable for food production and may refer more to the assumption that it is uninhabited. For example, the 20,000 ha river-irrigated plot that was acquired in the region of Benishangul-Gumuz (BG) by Saudi-owned company, Horizon, will be dedicated to edible oil crops. Jemal Ahmen, the general manger of Horizon, has been quoted saying that the plot is 'barren land' and 'there are no human beings living in it' (Davison 2012). All land registered at the Ethiopian Investment Agency (EIA) is categorized as 'wasteland', with no pre-existing inhabitants or users (SPGM 2009 29).

In more mixed messaging from government officials, Metasebia Tadesse, minister counselor at the Ethiopian embassy in New Delhi has said: 'Most Ethiopians live on highlands; what we are giving on lease is low, barren land. Foreign farmers have to dig metres into the ground to get water. Local farmers don't have the technology to do that. This is completely uninhabited land. There is no evacuation or dislocation of people' (Chandrasekaran and Padmanabhan 2011). This statement seems to imply that the land is both unused and marginal in an economic sense; it isn't currently farmed due to the lack of resources to produce food in a cost-competitive manner. Other classifications conflated by government officials in reference to land allocated to investors (at least in how they are translated by researchers and into English-speaking press) include 'unutilized', 'empty', 'unsettled' and 'uncultivated'.

Since the establishment of the land bank, the amount of land available to investors has fluctuated between 3 and 5 million hectares (mha) depending on the source consulted (Rahmato 2011, Fisseha 2011, MoFA 2011). One respondent stated that there were currently 3.4 mha available but referred to a publically accessible document created in 2010 as containing the most up to date figures that claims there are 3.6 mha 'delineated' for future investment (Respondent A 2013, MoFA 2010).⁵ Of these 3.6mha, 1.6 mha had actually been 'deposited' into the land bank. It can be inferred from the

⁵ Summing the number of available hectares listed per region yields 3.7 million, not 3.6.

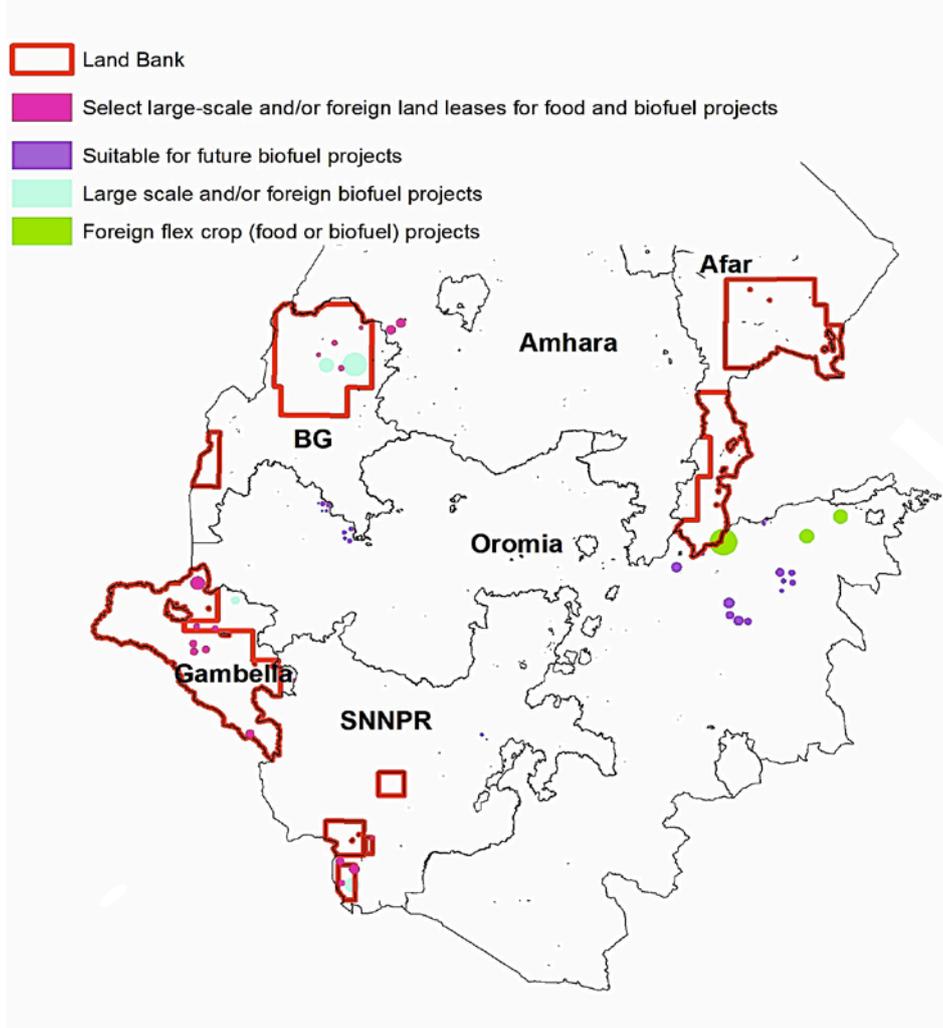
figures that areas considered 'deposited' are located in the emerging regions of Afar, Gambella, SNNPR and BG but it is unclear if the remaining 2 mha are within these regions and not yet deposited for some reason or if they lie in regions that also have land set aside for investors but not officially counted in the land bank, including Oromia (reportedly 1.4 mha) or Amhara (8,000-347,430ha) (Respondent A and C 2013, Lavers 2012). A recent independent press article from an Ethiopian business newspaper corroborated that, indeed, 3.6 mha were reported to be delineated for investment but definitively included the region of Oromia as contributing land to this figure and omitted the region of Afar (Mesfin 2013).

In reference to the AISD-sourced land bank data, geo-coordinates of the land parcels are available but the calculated area per region does not match the reported land area and in many cases, far exceeds it.⁶ Figure 2 maps these land bank coordinates and select large-scale land leases for both food and biofuel projects that have been negotiated at the federal level. Also included are lands that the AISD has designated for future biofuel development in SNNPR and Oromia. As shown, not all these areas are contained within the designated land bank area.⁷

⁶ The validity of geo-coordinates is questionable: when mapped, some designated land areas overlap with one another and occasionally extend beyond the borders of the country into neighboring South Sudan to the west. Polygons are adjusted for overlaps and clipped to be contained within the borders of the region to which they are reported to correspond.

⁷ Data on land deals and future biofuel sites were gleaned from publically available contracts through MoARD's Ethiopian Agricultural Portal as well as official documents and correspondence with investors, and media outlets corroborated by the author with MoARD and the Ministry of Water and Energy (MoWE). All deals are mapped to the kebele level, which is the smallest administrative unit in Ethiopia—equivalent to 'neighborhood' or 'ward'.

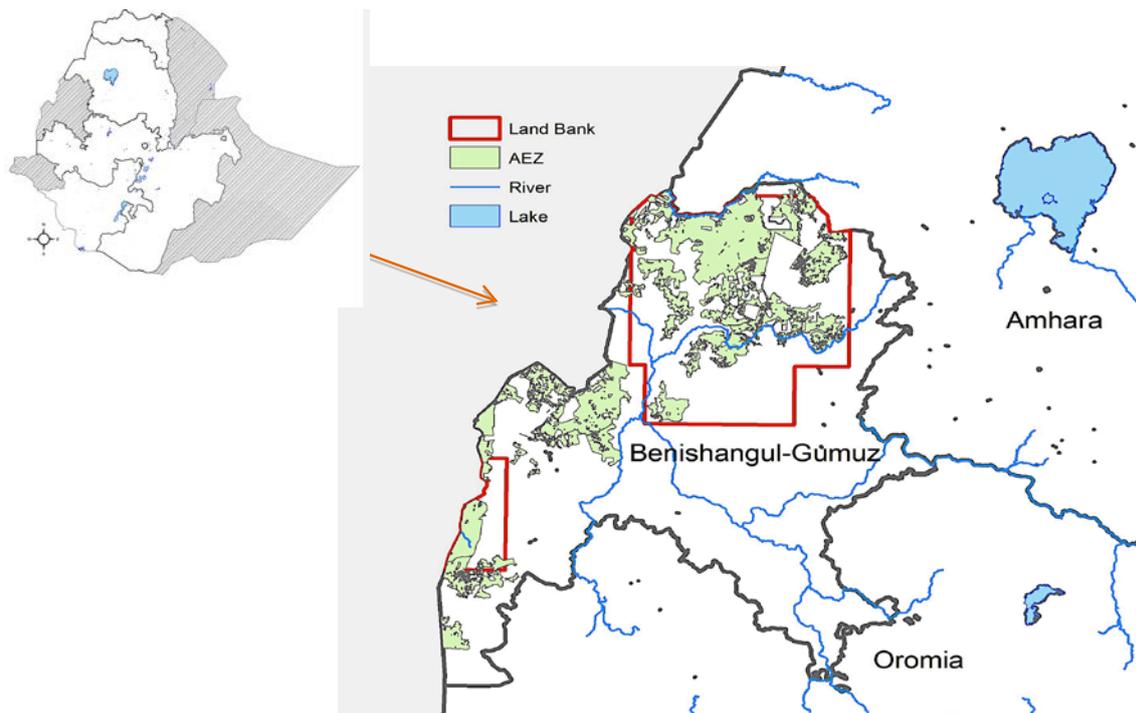
Figure 2: Select land leases to investors in relationship to land bank coordinates



Source data: CSA 2007, MoFA 2010, MoARD 2011. Data collated by author.

In regard to the new AEZ, recent press coverage claims that ‘experts from the MoARD, as well as others from the United States have identified around 250,000 ha of land intended for the establishment of an agricultural zone in Gambella and Benishangul Gumuz’ (Mesfin 2013). In the case of BG, spatially explicit and detailed maps obtained from the AISD reveal an area that amounts to approximately 931,336 ha. As shown in Figure 3, The AEZ area is not completely contained within the boundaries of the areas already deposited in the land bank. The AEZ area also far exceeds the 250,000 ha that reportedly reflects the total designated land area in both Gambella and BG combined. In terms of Gambella, it is unclear where exactly the AEZ will be located but according to the AISD, all areas with the official land cover class of ‘woodland’ are identified for investment (Respondent D 2013). Calculating woodland area from land cover data being used to identify lands for investors sums to 855,454 ha also surpassing the reported AEZ land area unless the AEZ is only intended to be comprised of a small subset of these woodlands.

Figure 3: Proposed Agricultural Economic Zone in Benishangul-Gumuz



Source data: CSA 2007, MoFA 2010. BG AEZ shapefile collected from MoARD 2013. Data collated by author.

3 Marginal land as 'unused': Undervalued use regimes

3.1 Pastoralism

A concern raised in association with a more active central government in the land allocation process has to do with the extent of knowledge regarding actual land use. Since many of the areas considered for investment potential are far from the capital and many areas inaccessible to roads, central authorities have been using satellite imagery and geospatial technologies such as Google Earth to identify 'marginal land' remotely. Respondent B, who had worked within the AISD, described the process of land allocation as he had witnessed it: investors would approach the AISD director (sometimes without having obtained an investment license from the EIA) who would then identify possible investment areas referencing Google Earth. One or two professionals from AISD would then accompany the investor to the area to survey the chosen land without necessarily consulting with local authorities that would have more information about how the land is actually being used--namely regional, zonal, or *woreda* officials. In the case of Gambella, land that is deposited in the land bank is identified *solely* on the basis of its remotely-characterized land cover class (i.e. areas classified as 'woodland') (Respondent D 2013). This is a problematic strategy for the obvious reasons that land cover should not be conflated with land use given that land cover simply does not sufficiently reveal how people are interacting with their physical environment to the degree of specificity required to determine availability in most cases (Nalepa and Bauer 2012). The assumption that remotely identified 'marginal' land is tantamount to 'unused' is unfounded without further local validation and consultation. The presence of pastoral activities is examined more closely in the 'emerging' regions of Afar and SNNPR. Figures 4a-4b overlay livelihood zones generated by the USAID Livelihood Integration Unit created in conjunction with MoARD with land bank coordinates. Also mapped are locations of select large-scale and/or foreign land leases negotiated by the federal

government. Even if the coordinates delineating deposited blocks of land in the land bank are considered only rough guides, it is evident here that the interpretation of 'unused' needs to be more closely examined especially since almost all the land deposited in the bank in these regions overlap with pastoral areas. Even this crude spatial data overlay provides intimation enough that vast areas of land being considered for allocation may already have competing uses.

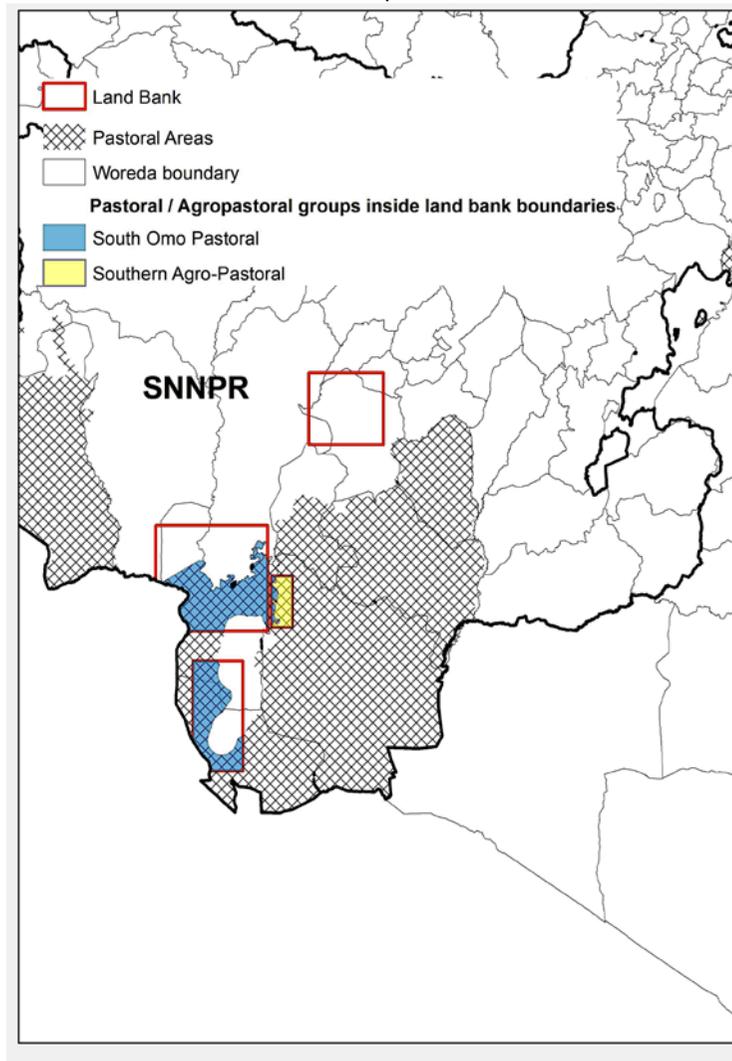
As commercialization and sedentarization grows, displacement is likely. In addition, the more rangeland dedicated to commercial agriculture, the less energy in the form of net primary production available for livestock. The land areas that sustain pastoralists countrywide currently cover about 700,000 km² or 70 mha (SOS Sahel 2010) and 20 mha if Somali is excluded (US AID/MoARD 2010). If the coordinates associated with the land bank truly reflect the land being made available to investors for commercial agriculture, demarcated areas comprise about 14% of the pastoral land that spans the seven regions with potential cultivable land. Even if these are only tentatively established areas that require local validation before official allocation, the amount of land marked for investment may still fall on the conservative side since many parcels that have been already allocated are outside these areas. The quality of the land and its strategic location are also important. For example, 10,700 ha of land leased for the Indian-backed Bechera Agricultural Development Project in the western portion of Oromia overlaps the grazing lands and wetlands of local pastoralists and has resulted in the loss of routes to water points and divested herders access to strategic pastures (Fisseha 2011). In Afar, transformations associated with the commercial cultivation of 150,000 ha in the Awash River basin have restricted pastoralist mobility and their use of dry and wet grazing areas (Helland 2006 as cited in Makki 2012).

Thus, with the creation of the land bank and the increased drive to commercialize, the tacit marginalization of pastoralist livelihoods appears likely to continue despite the important role that pastoralism plays in the Ethiopian economy. Figures are approximate, but it is estimated that pastoralist activities comprise 16% of national GDP⁸ and 35% of agricultural GDP (SOS Sahel 2010, Hatfield and Davies 2006). Calculating a true opportunity cost for lost pastoral land is also complex. For example, one of Afar's most compelling features is its touted irrigation potential – as much 25% of the region's total land area of 85,530 km² is thought to irrigable (Hatfield and Davies 2006). The opportunity cost of rangeland to each hectare of irrigated land would not be one to one but 3 un-irrigable hectares would be lost through access constraints resulting in the loss of 4 ha worth of pastoral revenue for every hectare irrigated for commercial purposes (Hatfield and Davies 2006).

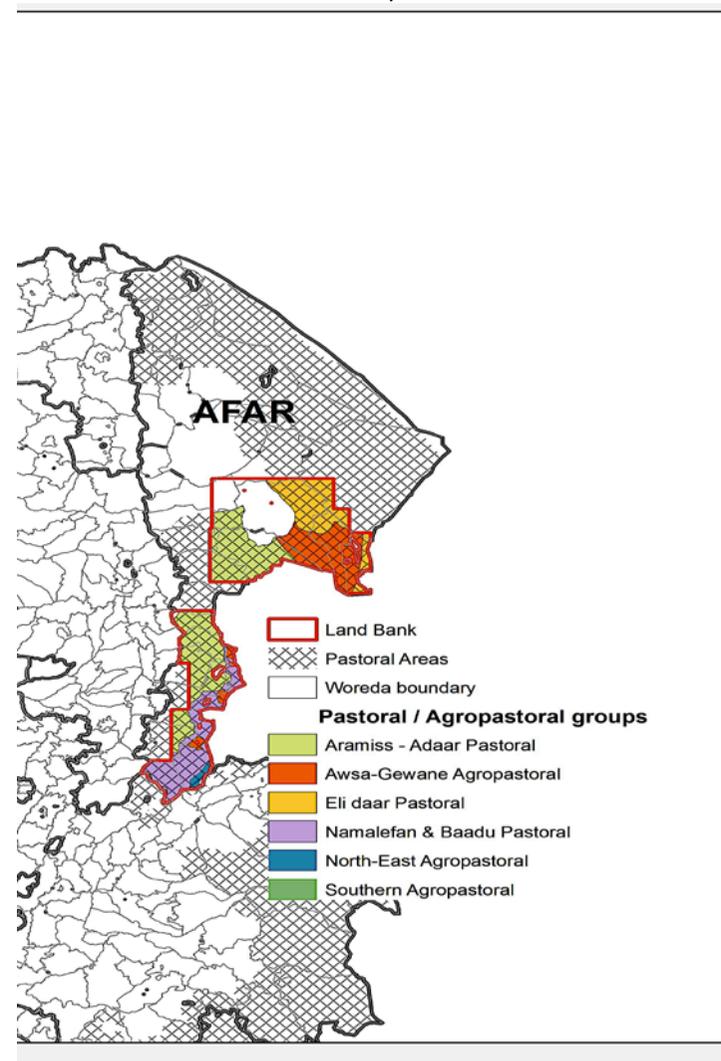
⁸ Figure reflects both an approximation of direct and indirect values.

Figures 4a-b: Pastoral areas overlapping and with land bank in SNNPR and Afar

4a)



4b)



Source data: CSA 2007, USAID Livelihoods Integration Unit (LIU)/MoARD 2010, MoFA 2010. Data collated by author.

3.2 National Parks and woodlands

Potentially undervalued areas labeled ‘marginal’ also include particular ecosystems. For example, though Amhara does not currently have land in the federal bank, the region does have a continued interest in bringing investors to the area for extensification projects (Respondent C 2013). Due to high population pressure and intense cultivation throughout most of the region, the 8,000 ha which are earmarked for investment are concentrated in undeveloped ‘forest’ (Respondent C 2013).⁹ Perhaps the most striking example of targeting specific ecosystems can be seen in Gambella. The block of land demarcated according to AISD figures includes land cover classes that range from swamp, to dense high forest, to scrubland, among others. As previously mentioned, the Gambella AEZ (assumed to be the more refined and recent figure of available land) exclusively contains areas that have been chosen according to its land cover classification of ‘woodland’. According to the land cover map being used by AISD, there are 855,455 ha of woodlands covering the region of Gambella – some of which has already been allocated and/or developed with all the rest apparently slated for lease to investors for commercial agriculture (Respondent D 2013). This is much higher than the original figure of 437,500 ha cited in an unpublished 2008 report by the Ethiopian Wildlife Conservation Authority (EWCA) before the establishment of the AISD (Schuschnigg *et al.* 2009).

The region’s woodland is mostly of the *Combretum-Terminalia* variety, which describes a landscape with trees that exceed 5 meters in height and a crown tree cover greater than 20% (FAO 2010). Interestingly, nearly all of BG (the only other region where AEZ land has been demarcated) can be classified as *Combretum-Terminalia*, although this specific criteria in choosing delineated areas in BG was not explicitly referenced in interviews. The *Combretum-Terminalia* ecosystem in both in Gambella and BG plays a crucial role in terms of the services it provides to its inhabitants including medicinal plants and non-cultivated food plants as well as supporting resources for hunting, gathering and beekeeping (Awais *et al.* 2004). These services are not counted in traditional economic analyses.

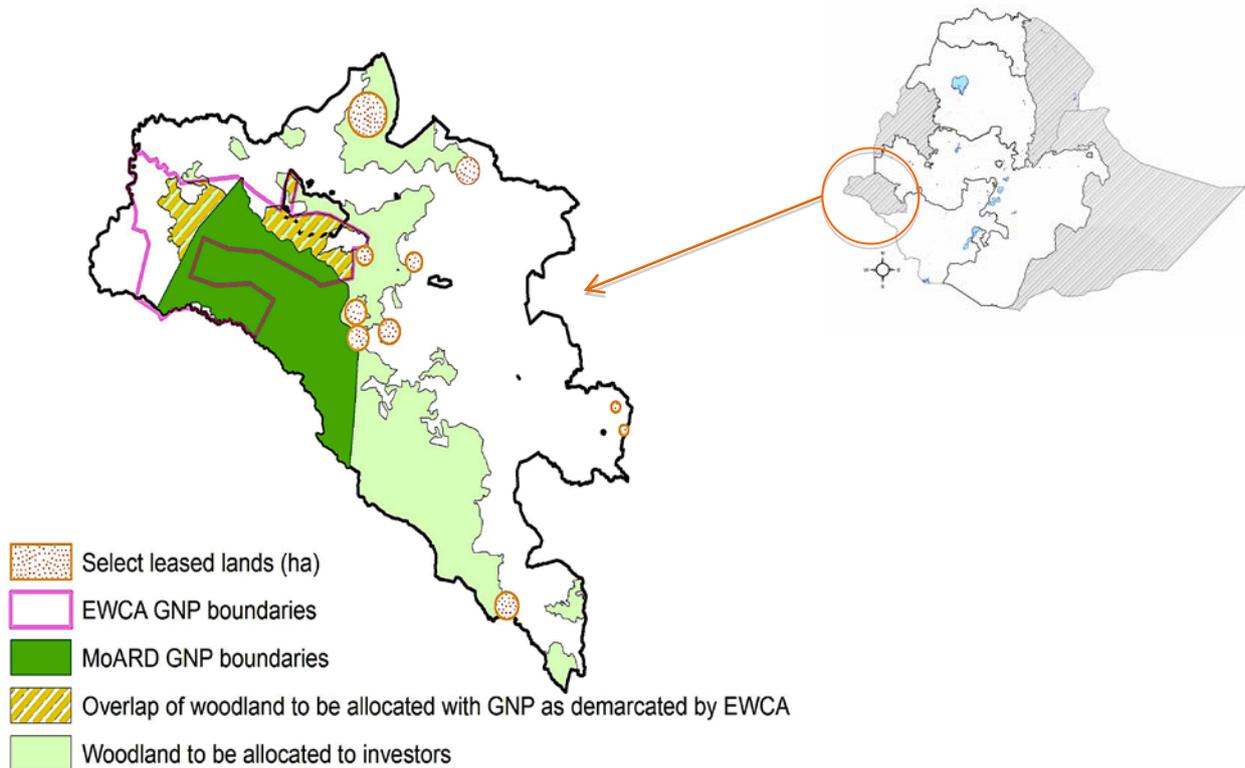
These deciduous woodlands also comprise much of Gambella National Park (GNP) along with swamp and savanna. The park, which covers about 20% of the Gambella region’s area, was established to protect wildlife not found elsewhere in Ethiopia. The region hosts endangered species including two types of wetland antelopes as well as elephant, African buffalo, lion, olive baboon, topi, Burchell’s zebra, warthog and at least 300 bird species. Rivers running through the park are home to hippopotamus, Nile crocodile and abundant Nile perch. Gambella features Africa’s second-largest mammal migration with more than a million endangered antelope moving through its grasslands – some of these corridors protected through the park (Pearce 2011). The park has never officially been gazetted and according to EWCA official Cherie Enawgaw, it has ‘no management plan and has no clear indicated boundary’ (Pearce 2011).¹⁰ This has become a concern for environmentalists since an estimated 438,000 ha have been granted to agri-business companies in the vicinity of the park including two of the biggest foreign agri-business companies operating in the area: Karuturi Agro Products Plc. and Saudi Star Agriculture Development Plc. (Oakland Institute 2011a). Land allocated to investors includes areas that run along what is considered the park border or, in some cases, actually encroaches into park territory. Moreover, as shown in Figure 5, MoARD appears to be working off a map of park boundaries that that looks much different than the boundaries the EWCA

⁹ Land cover categories verified through the USDA Foreign Agricultural Service classify identified areas as ‘Scrub/Shrub’.

¹⁰ Gambella National Park was established as a protected area in 1973 but has not yet been afforded full protection by the government. Its status is unclear.

re-negotiated. Also shown in this figure is where woodland that is either slated to be allocated or already developed overlaps with park boundaries.

Figure 5: Conflicting GNP boundaries and areas for investors



Source data: CSA 2007, Enawgaw 2011, MoARD 2011, EWCA n.d., Cotula *et al.* 2009. Data collated by author.

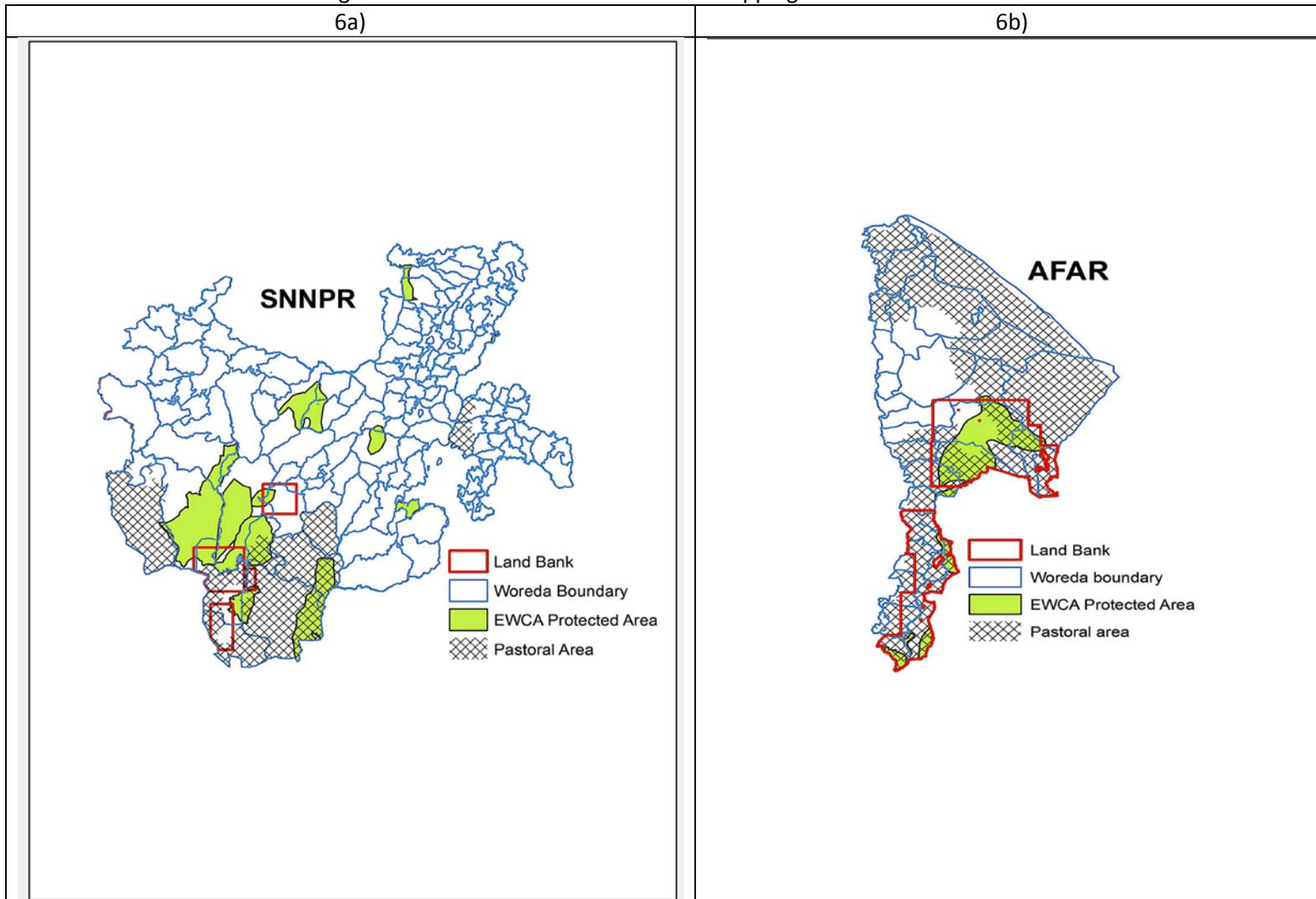
Following a consensus-building workshop with key stakeholders in 2011 that included zonal and *woreda* officials, EWCA re-delineated GNP boundaries. The government had asked the EWCA to ‘re-demarcate’ the park boundaries to the south and west to make way for concessions to investors but EWCA aerial and ground surveys revealed that wildlife hotspots and corridors would be severely affected (Pearce 2011, Enawgaw 2011). Crucial ecosystems and habitat were threatened including the Duma swamp at the core of the park – an area originally delivered to Karuturi for development that the company was planning to drain. EWCA was subsequently ‘forced to deal with the bureau of the regional government land administration’ with the result of concession boundaries being extended away from the park in order to save the swamp (Enawgaw 2011:12). Saudi Stars’ concession didn’t cross the park boundary but they were approaching the south end of Duma swamp at the time when the EWCA team arrived to perform their surveys. After meeting with stakeholders, four beacons were placed leaving a 5 km buffer zone between the Park and the farm (Enawgaw 2011).

Existence value aside, a point of contention regarding the Gambella region in general rests on the fact that alternative economic uses to large-scale commercial agriculture have not been explored. For example, Gambella may very well have the same eco-tourism potential as the Serengeti and Maasai Mara tourist ‘hotspots’ in Kenya and Tanzania (Pearce 2011). Though meager, protected areas in other parts of Ethiopia provide direct benefits from tourism, job creation and entrance fees despite suffering from poor infrastructure, underdevelopment, and poor advertisement (Schuschnigg

et al. 2009).¹¹ Even in comparison to other Ethiopian parks, funding to GNP is considered extremely low especially taking into account the sheer area the park; GNP employs 17 staff to manage an area of 437, 382 ha (Schuschnigg *et al.* 2009). Tourism in Gambella is virtually absent and despite high biodiversity and unparalleled wildlife and recreation opportunities, GNP garnered no revenue in 2008/09 (Schuschnigg *et al.* 2009). A non-exhaustive assessment of direct and indirect use values for GNP was performed by Schuschnigg *et al.* (2009) for EWCA and although data was incomplete, the value of provisioning services alone including fish resources, medicinal plants and household water was estimated to be approximately \$30-\$339 million per annum. Gambella is not the only region where ecosystem services, biodiversity, provisioning services, and potential development in the eco-tourism sector may be compromised if all the land in the bank is converted to large-scale agriculture. Figures 6a-b show where Protected Area locations according to the EWCA overlap with land bank boundaries.

¹¹ EWCA realized about US\$ 19,000 from entrance fees to national parks in 2008/09 (Schuschnigg *et al.* 2009).

Figures 6a-b: Land bank boundaries overlapping with Protected Areas



Source data: CSA 2007, USAID Livelihoods Integration Unit (LIU)/MoARD 2010, Enawgaw 2011, MoFA 2010. Data collated by author.

4 Marginal land as ‘wasteland’ or ‘barren’: Biophysical vs. socio-economic constraints

If investors are interested in obtaining land from the federal land bank for agricultural projects, these areas need to be biophysically capable of growing crops. Though this seems obvious, the descriptions of land allocated to investors such as ‘wasteland’ or ‘barren’ often have a connotation quite the opposite—especially since addressing details of land quality and land potential are omitted or not available from references quoted in the press.

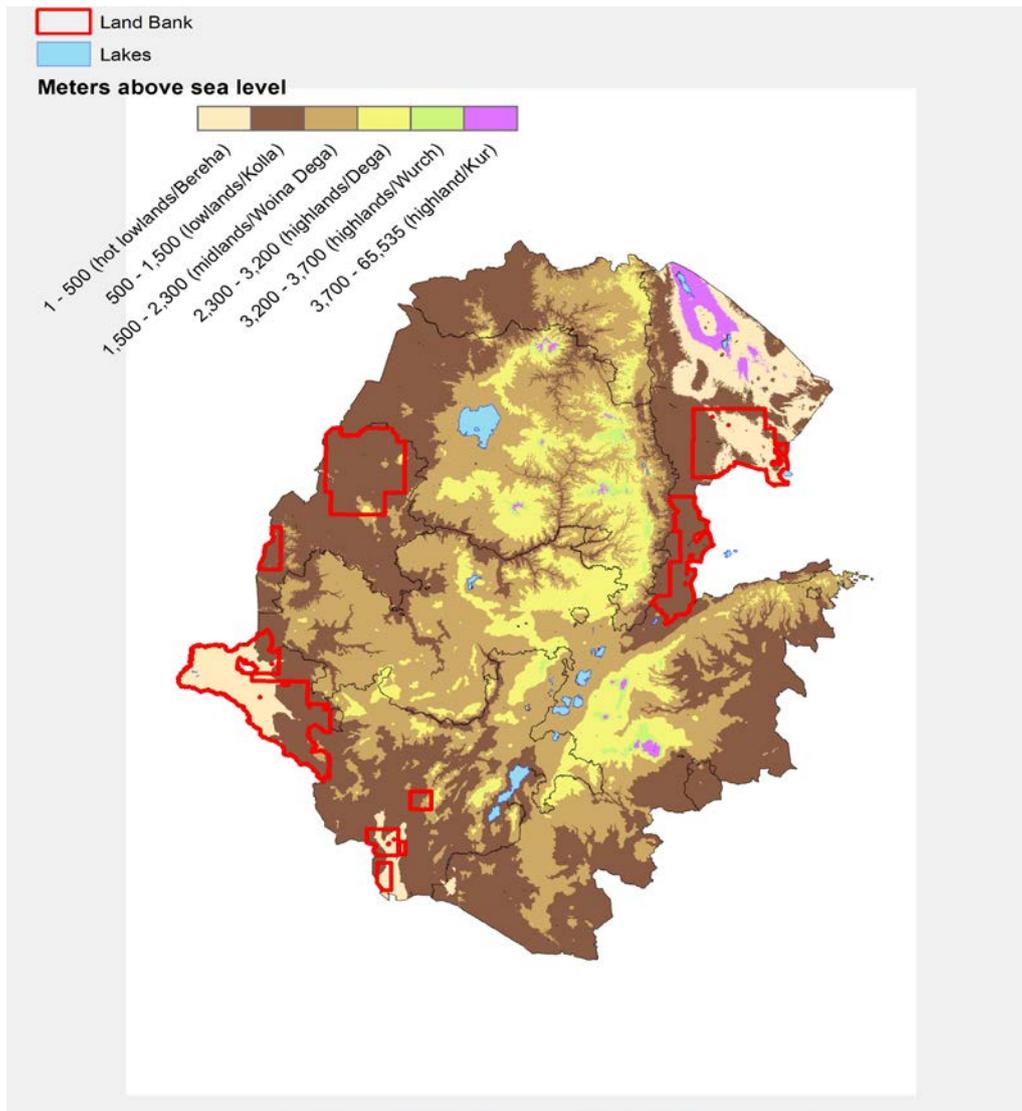
Land that is ‘barren’ has a generally more accepted application than fuzzier terms such as ‘wasteland’ or ‘marginal’. NASA defines ‘barren land’ as: ‘land of limited ability to support life and in which less than one third of the area has vegetation or other cover. In general, Barren Land has thin soil, sand, or rocks’ (Anderson *et al.* 1976: 31). These areas would include deserts, dry salt flats, beaches, sand dunes, exposed rock, strip mines, quarries, and gravel pits. Most land cover products will classify barren land similarly as land inhospitable to plant life.

Figure 6 investigates the aforementioned claim by Ato Metasebia Tadesse that land that being leased is ‘low, barren land’. We can see that even though most land in the bank is indeed considered to be of relatively low elevation compared to the intensively cultivated highlands, it is not barren. These lowlands have been traditionally classified into two broad Agro-Ecological Zones (AEZ)¹² distinguished by elevation: the hot lowlands (*Bereha*) and the lowlands (*Kolla*). *Bereha* crop production is limited but can still support maize and root crops in certain areas, whereas sorghum, finger millet, sesame, cowpeas and groundnuts are commonly grown in *Kolla* (Gorfu and Ahmed 2011). Subsets of these zones have become increasingly more refined in considering other determinants of land potential and productivity such as soil type and composition and length of growing period derived from moisture regime information which in turn provide more detailed information about what crops can potentially thrive and where. Within the boundaries of the land bank we can find roughly 10 of 32 more refined Major Agro-Ecological Zones (MAEZ)¹³ from the warm humid lowlands of SNNP to the hot arid lowlands of Afar (MoARD n.d.) In addition to those crops already mentioned, these 10 zones can support such crops as cotton, maize, banana, citrus and other cereals. A small zone of tepid humid midlands in SNNP can also support coffee, *enset*, and more fruit crops. Crops prioritized for the recently delineated AEZ (referring to Agricultural *Economic* Zones) in Gambella and BG are commercial crops for export like cotton, rubber and palm oil (Mesfin 2013, Respondent A 2013). Referencing the aforementioned example of ‘barren’ land acquired by Horizon in BG, we can infer land is not barren in the traditional sense since will be dedicated to edible oil crops.

¹² Not to be confused with the aforementioned ‘AEZ’ as Agricultural Economic Zones in Gambella and BG.

¹³ MoARD is currently refining a subset of 54 sub agro-ecological zones.

Figure 7: Elevation of land bank area and broad Agro-Ecological Zones



Source data: MoFA 2010, Gorfu and Ahmed 2011, Hurni 1998, Jarvis *et al.* 2008. Data collated by author.

The concept of 'wasteland' is more imprecise. Prior to the international spotlight over 'land grabs' and the formation of the AISD, the EIA used the term 'wasteland' to officially categorize previous land use for 17 large geo-referenced areas that had been leased to domestic and foreign investors across seven regions in Ethiopia. Cotula *et al.*, who collected this data for a joint FAO/IIED/IIED study, suspect that 'wasteland' was used as a catch all-phrase that did not necessarily have anything to do with the biophysical properties of the land (Cotula 2012, Cotula *et al.* 2009). This was contradicted by a respondent in the Amhara Bureau of Environmental Protection, Land Administration, and Use (BoEPLAU) which identified wasteland as small, non-cultivable rocky outcrops that were not possible to cultivate – more akin to barren land (Respondent C 2013). An alternative application of 'wasteland' describes land that could potentially be recovered or used for farming given the right amount of investment, referred to as 'cultivable wasteland' (Chand *et al.* 2008), but the question remains as to whether investors would be interested in this land given there are other options that require a lower input of resources to overcome the challenges associated with development. Whether this categorization would apply to degraded land (discussed in next section) is unclear. Areas of moderate to high soil erosion hazard can be found in BG but do not apply to the majority of

the land in the bank and this measure does not reflect the rate at which soil is actually being lost. Descriptors regarding soil status also are not ubiquitous across select leases authorized by the AISD or Cotula *et al.* 'wasteland' sites.

In addition to biophysical constraints, there are other factors that contribute to under productivity or render lands non-economical to develop. Often overlooked is the presence of the tsetse fly and malaria in the lowlands. These health hazards have long contributed to the lack of settled agricultural development in these areas and will need to be addressed since they will pose major risks to highlanders coming to work on large-scale farms with no endemic protection from malaria. For example, Karuturi expects to have 50,000 people eventually living within their concession area, working its fields and operating processing mills in three townships. According to locals, when commercial opportunities come to the region, most of the jobs go to highlanders (Pearce 2011).¹⁴ A similar situation is likely to be found in BG where many employees on new agricultural farms originate from different regions the country (Shete 2013). In the case of malaria, the government acknowledges this is an obstacle to developing the lowlands and there is the belief that investors can engage with business models that will both control malaria exposure and provide options for care for those infected (Respondent A 2013). Disease prevalence will vary according to many factors that affect transmission but as shown in Table 1, nearly all of the 10 more refined AEZs found within the boundaries of the land bank are areas where malaria and/or tsetse have been present and identified as major constraints to development.

Table 1: Presence of malaria and Tsetse in MAEZs found within land bank boundaries

Agro-Ecological Zone	Malaria	Tsetse Fly and Malaria
Hot arid lowland plains	X	
Warm humid lowlands	X	
Warm arid lowlands	X	
Hot semi-arid lowlands	X	
Hot moist lowlands	X	
Warm moist lowlands		
Hot sub-humid lowlands		X
Warm sub-humid lowlands		X
Hot semi-arid lowlands	X	
Tepid per-humid mid highlands		

Source data: MoARD n.d. Data collated by author.

More constraints include a lack of access to irrigation, roads, markets and other infrastructure. Change in any of these exogenous factors can make land commercially competitive for food crops despite being conceived as marginal or cultivable wasteland at the outset (Nalepa and Bauer 2012). These are the lands that the EPRDF is hoping that investors will lease given that infrastructure such as roads and irrigation require a large outlay of capital. In terms of land in the land bank, there is not a clear picture emerging about the how these socio-economic constraints factor into the determination of marginal land for investors. The same MoFA document spatially delineating land bank areas states that available land is accessible with asphalt and all weather roads up to the regional capitals towns (MoFA 2010). In 2011, the Oromia Investment Commission in conjunction with the MoARD chose potential sites for *Jatropha* amounting to 212,500 ha based partially on the

¹⁴ Highlanders, or 'degawotch' in Amaharic, is used to refer to those coming from more established regions such as Amhara or Tigray.

criteria of proximity to the zonal capital and to Addis Ababa (Respondent A 2013). Out of the 28 sites, only 4 did not have road accessibility. On the other hand, many lands demarcated for the forthcoming AEZ in BG will be targeted for major government investment in order to provide lacking infrastructure to the area (Mesfin 2013). The assumed logic is that the zoning of a concentrated area specifically set aside for large-scale commercial projects will make the large sunk costs associated with infrastructure creation a cost-effective strategy. These areas where the EPRDF is prioritizing electricity and road construction are designated for commercial export crops, like cotton, rubber and oil palm (Mesfin 2013).

5 Marginal land as 'degraded': biofuels

Biofuel production and processing is still nascent in Ethiopia but there is a significant push for an expansion of both biodiesel and bio-ethanol as Ethiopia relies entirely on oil imports (Gebremeskel and Tesfaye 2008). Experience with bioethanol technology and production in Ethiopia traditionally has been limited to using the molasses that is a by-product of the domestic sugar industry. Up until recently, only one of the four government-owned sugar factories also had an ethanol plant but the government's objective is to not only have all the current plants updated to have ethanol generating capacity, but ensure that each of the 10 factories slated to be built as joint public-private ventures are also capable (Respondent E 2013). The older factories are in Oromia, but intensive sugar expansion is planned for 245,000 ha in the Lower Omo Valley region of SNNP (Oakland Institute 2011b). The location for these plants are being chosen by the Ethiopian Sugar Development, an umbrella organization of the central government, and appear to fall within the borders of the land bank along the Omo River. These lands are obviously productive and will be irrigated given the water intensity of sugarcane.

As opposed to bio-ethanol, the production of biodiesel is a relatively recent development phenomenon in Ethiopia and has been predominantly produced from the feedstocks of oil palm, *Jatropha*, castor bean, and more recently, *Pongamia pinnata* (Respondent A 2013).¹⁵ Small-scale biodiesel production has mostly been promoted in two contexts: as a decentralized, locally managed option for meeting community energy needs and/or to rehabilitate biophysically degraded lands and prevent soil erosion. For example, there are a couple of NGOs involved in promoting small-scale cultivation of *Jatropha* in Amhara and the highlands of Tigray in areas that are considered degraded (Respondent F 2013). One of these NGOs, the Organization for Rehabilitation and Development of Amhara (ORDA), claims to have planted over 165 million plants are covering 29,425 ha of degraded/marginal lands as of 2010 (ORDA 2011). Sites were chosen on the basis of being either 'devoid of any vegetation (barren land)' or having 'sparse vegetation cover' (ORDA 2011). Uncultivable gullies and hillsides are also targeted (Respondent F 2010).

What's changed in recent years is a steadily growing (mostly foreign) interest in exploring larger-scale biofuel projects on Ethiopian lands. The government has taken care to stress that land for fuel and land for food should not compete, but land degraded to the point that it will not grow food will also prohibit the thriving of commercially grown energy crops. The Biofuel Development and Utilization Strategy issued from the former Ministry of Mines and Energy (MoME) in 2007 asserted that 23 mha of land is available for biofuels yet it does not include any specifics on these earmarked lands, nor do they disclose the means by which these lands were identified.¹⁶ It is assumed that suitable land for biofuels adheres to principle 7.2.2.2 of the same document which asserts that areas for biodiesel be found in 'low and barren areas where rain fall is scarce' and the livelihood of pastoralists of the food production needs of farmers are not jeopardized (MoME 2007). In this case, almost all of Gambella's

¹⁵ *Pongamia pinnata* is a leguminous tree native to India that that bears non-edible oil from its seeds.

¹⁶ Neither respondents from the Ministry of Water and Energy (formerly MoME) nor the MoARD could verify these figures or methodology used to derive these figures (Respondents A and E 2013).

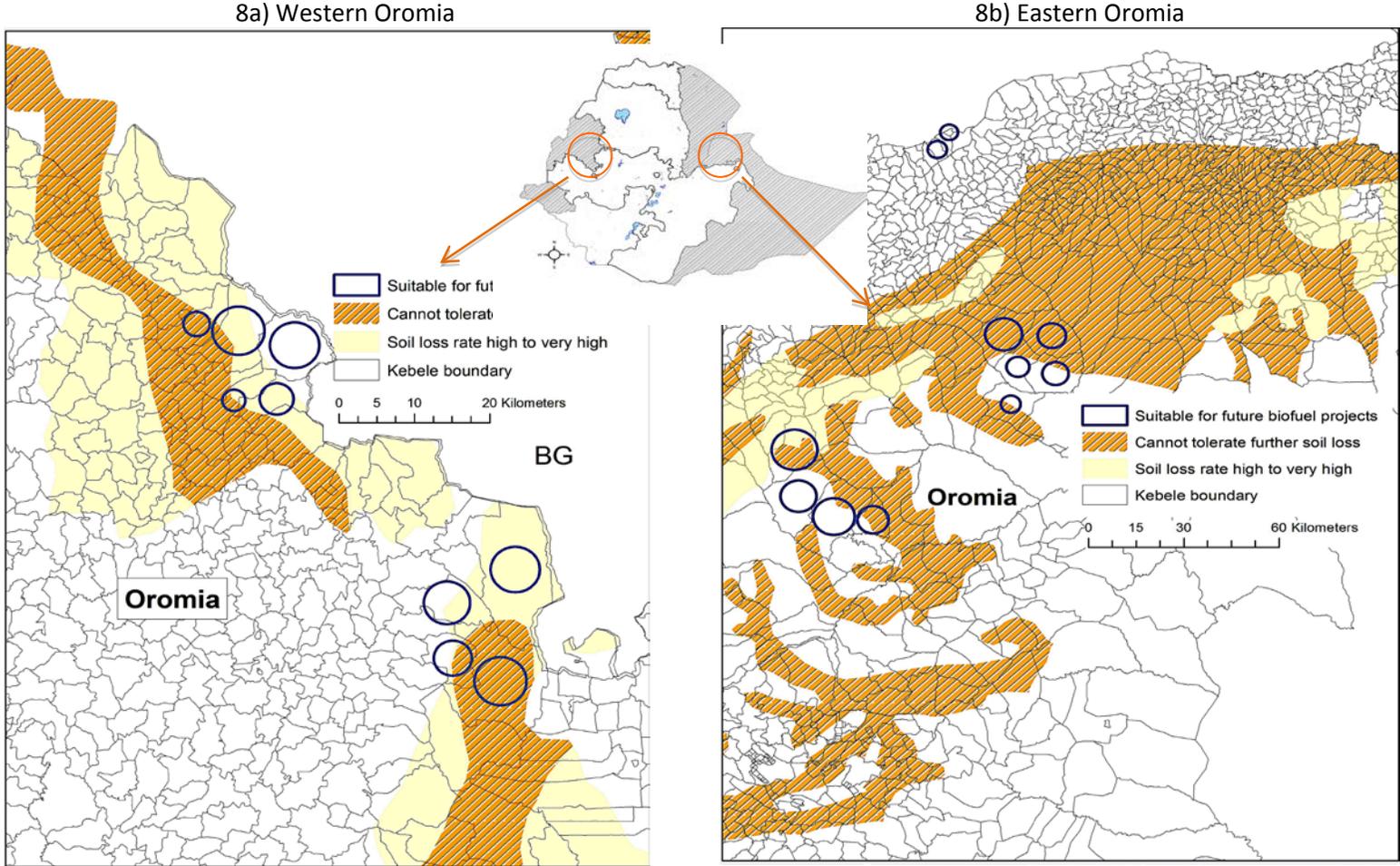
land should meet this criteria since 2.8 mha of its approximately 3 mha is deemed appropriate for biofuels and Oromia has approximately 17 mha of available representing roughly half the region's size (MoME 2007).

The amount of land allocated to individual investors for biofuels projects is often larger than leases for those involved strictly in food production so should, in theory, be easier to monitor and link the project to specific attributes of the land and the environment with geospatial technologies. The challenge is that many bioenergy projects involve outgrower schemes where the investor product is intercropped on non-contiguous plots of farmed land throughout the area. For example Global Energy Ethiopia not only acquired approximately 2,700 ha in SNNPR on one particular land parcel but also planned to append 7,500 additional ha by intercropping castor bean throughout the region (Lakew and Shiferaw 2008). So, while it is difficult to verify land quality in many cases, intercropping and outgrower schemes would seem to suggest that land is not degraded and able to grow food crops. In addition, there are cases of investors switching from biofuels to food crops despite the original agreement terms approving the project for a specific crop. For example, the Belgian company Giving Tree Nursery was originally granted land to grow castor seeds but according to the company's general manager, started growing fruits and vegetables for export instead due to management issues and falling prices of castor seed (F. Diedens, personal communication, Aug. 3, 2012).

As of 2011, larger 'marginal' areas labeled biophysically degraded had been identified and passed from the regional governments to the federal level to be leased for biofuel projects. This included not only the previously mentioned sites from Oromia but also areas in SNNPR. These may be easier to identify and track remotely, but definitively, degraded land is open to multiple interpretations. Broadly, degraded land can be understood as a 'substantial decrease in either or both an area's biological productivity or usefulness due to human interference' (Johnson and Lewis 1995: 2), but how this is actually measured will vary. Degradation can be considered as a loss of natural productivity, loss of biodiversity, a loss of usefulness or as a change in risk ecology with none of these definitions providing an absolute characterization of degradation (Robbins 1994). And, just as the causes for the dynamic process of land degradation cannot be considered outside of the political and social contexts within which it is embedded, neither can the establishment of the criteria for its determination be an apolitical undertaking. It follows that any attendant solutions for land degradation and the narratives accompanying them must also be considered in this light. Since land degradation in Ethiopia is a contested notion that has evolved from (and continues to be shaped by) historical discourses and the political interests of particular actor-networks (Keeley and Scoones 2000), more local investigation is required to paint a fuller picture of how the sites were settled upon and which institutions were involved in the process of characterizing them as degraded.

If degradation is considered a function of soil loss, some lands being considered for biofuel projects appear to be degraded or approaching degradation. As shown in Figures 8a-b, a selection of the aforementioned earmarked sites for *Jatropha* in Oromia are classified as having a soil loss rate from high to very high with some areas showing that no further soil losses can be tolerated. In terms of other energy crops the central government is interested in promoting, such as oil palm, *Pongamia pinnata*, and castor bean, there appears to be no discernable effort to distinguish lands of a particular quality for these purposes. According to a respondent at the AISD, as long as the product is intended for export, there is no distinction between land for food and land for biofuels; 'marginal' land is not synonymous with degraded land in this context (Respondent A 2013).

Figures 8a-b: Soil status in areas marked for future biofuel projects in Western and Eastern Oromia¹⁷



Source data: CSA 2007. Data collated by author.

¹⁷ Suitable areas specific to the kebele level. Marked areas are based on buffers around kebele centroid meaning exact location may vary within kebele boundaries. Location and size of potential biofuel sites were retrieved personally from MoARD 2011. Erosion hazard and soil loss rate data retrieved from MoARD 2013. Descriptive and structural metadata unknown.

6 Conclusion

Though a more rigorous statistical analysis on the attributes of allocated land is limited by the spatial scale at which land transfer data is collected, the series of map overlays in this paper would seem to suggest that ‘marginal’ lands within the land bank boundaries are not unused and/or degraded; in fact, they are potentially productive lands that also already happen to have important roles in supporting not only nomadic and semi-nomadic livelihoods, but in ecosystem health the maintenance of Ethiopia’s biodiversity. Government officials appear to categorize ‘marginal’ land based on either land cover (woodland) in which case human-environment interactions are neglected or based on biophysical or socioeconomic criteria that do not seem to be consistent. Despite these lands having their own distinct socio-natures, the terms ‘marginal’, ‘barren’ and ‘wasteland’ are applied on a (mostly) interchangeable basis to create a binary classification system of marginal vs. non-marginal lands found in emerging regions.

Land use change on the order of magnitude possible if all the land in the federal land bank is converted to large-scale, settled agriculture, would be a drastic alteration of the landscape and any human-environment interactions endemic to them. Given that more specific areas have been identified and demarcated for the development of commercial agriculture, the opportunity now arises to establish baselines and monitor these zones for changes. Though land allocation data collected on the level of *kebele* is suitable for linking lands to attributes such as land cover in general area or features like rainfall or soil type that don’t vary much over such a small scale, specific geo-coordinates are required if we are to examine how other developments may be changing the environment in emerging regions and how people might be relating to these changes. These include alterations in infrastructure as well as the fragmentation of resources and loss of resource access for pastoralists or for those who rely on woodland ecosystems for aspects of survival. Moving forward, geo tracking land transfers enables us to monitor groups being marginalized based solely on their dependence on lands that are not considered as being put to the highest value use according to the EPRDF’s market-oriented development strategy.

References

1. Adegehe, A.K. 2009. Federalism and ethnic conflict in Ethiopia: a comparative study of the Somali and Benishangul-Gumuz regions, Doctoral Thesis, Leiden University.
2. Anderson, J.R., E.E. Hardy, J.T. Roach and R.E. Witmer. 1976. A land use and land cover classification system for use with remote sensor data. U.S. Geological Survey Professional Paper, No. 964. USGS, Washington, D.C.
3. Awas T., T. Bekele, and S. Demissew. 2004. An ecological study of the vegetation of Gambella Region, Southwestern Ethiopia, SINET: *Ethiopian Journal of Science*, 24(2), 213–228.
4. Butler, E. 2010. Land grab fears in Ethiopia. *BBC News*. Available from: <http://www.bbc.co.uk/news/business-11991926> [Accessed on 20 January 2011].
5. Chand R., T.C. Upreti and B.S. Mehta. 2008. Wasteland identification and distribution in Kalpanigad Basin, Kumaun Himalaya. In: B.Thakur, ed. Perspectives in resource management in development countries: Volume 3, Ecological degradation of land, pp. 19-39. Concept’s International Series in Geography-5. New Delhi: Concept Publishing Company.
6. Chandrasekaran, A. and V. Padmanabhan. 2011. Investments in Ethiopia farming face criticism from activists. *Live mint & The Wall Street Journal*. Available from:

<http://www.livemint.com/Companies/RTwJPKzDJVBRtt2NZEQoMP/Investments-in-Ethiopia-farming-face-criticism-from-activist.html>. [Accessed 11 November 2011].

7. Cotula, L. 2012: The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers, *Journal of Peasant Studies*, 39(3-4), 649-680.
8. Cotula, L., S. Vermeulen, R. Leonard and J. Keeley. 2009. Land grab of development opportunity? Agricultural investment and international land deals in Africa. London/Rome: IIED/UN/ FAO/ IFAD.
9. CSA (Central Statistics Agency). 2007. Administrative boundary shapefiles derived from 2007 census. Available from: <http://cod.humanitarianresponse.info/country-region/ethiopia>. [Accessed 1 Jan 2011].
10. Davison, W. 2012. Saudi Billionaire to Invest \$600 Million in Ethiopia Cooking Oil. EthioSun. Available from: <http://www.ethiosun.com/2012/04/05/saudi-billionaire-to-invest-600-million-in-ethiopia-cooking-oil/>. [Accessed 8 June 2012].
11. Demeke, Y. and N. Aklilu. 2008. Alarm bell for biofuel development in Ethiopia: The case of Babile elephant sanctuary. In: T. Heckett and N. Aklilu, eds. *Agrofuel Development in Ethiopia: Rhetoric, Reality and Recommendations*, pp. 115-132. Addis Ababa, Ethiopia: Forum for Environment in Partnership with Horn of Africa Regional Environmental Center/Network (HOAREC/N).
12. Donham, D. 1986. Old Abyssinia and the new Ethiopian empire: themes in social history. In: D. Donham and W. James eds. *The southern marches of imperial Ethiopia: essay in history and social anthropology*. Cambridge: Cambridge University Press.
13. Enawgaw, C. 2011. Endeavor towards boundary redemarcation and management of Gambella National Park. Final performance report. Ethiopian Wildlife Conservation Authority (EWCA).
14. EWCA (Ethiopian Wildlife Conservation Authority) n.d. Ethiopian Protected Areas shapefiles. Obtained 25 April 2012 from professional contact at EWCA.
15. FAO. 2010a. The state of food insecurity in the world Addressing food insecurity in protracted crisis. Rome: FAO.
16. FAO. 2010b. Global forest resources assessment country report: Ethiopia. Rome: Forestry Department: FAO.
17. Fisseha, M. 2011. A case study of the Bechera agricultural development project, Ethiopia.
18. Fisseha contribution to ILC Collaborative Research Project on Commercial Pressures on Land. Rome: ILC.
19. Gebreselassie, S. 2012. Land, land policy and smallholder agriculture in Ethiopia. Future Agricultures Policy Brief No. 001. Future Agricultures Consortium.
20. Gebremeskel, L. and M. Tesfaye. 2008. A preliminary assessment of socioeconomic and environmental issues pertaining to liquid biofuel development in Ethiopia. In: T. Heckett and N. Aklilu, eds. *Agrofuel development in Ethiopia: rhetoric, reality and recommendations*. Addis Ababa, Ethiopia: Forum for Environment in Partnership with Horn of Africa Regional Environmental Center/Network (HOAREC/N), pp. 39-65.
21. Gorf D. and E. Ahmed. 2011. Crops and Agro-Ecological Zones of Ethiopia. Ethiopian Institute of Agricultural Research (EIAR).
22. Hagmann T. and A Mulugeta. 2008. Pastoral conflicts and state-building in the Ethiopian lowlands, *Africa Spectrum*, 43(1): 19-37.
23. Hall, D. (2011). Land grabs, land control, and Southeast Asian crop booms, *Journal of Peasant Studies*, 38(4), 837-857.
24. Hatfield, R. and J. Davies. 2006 *Global Review of the Economics of Pastoralism*. Nairobi: IUCN.

25. Horne, F. 2011. Understanding land investment deals in Africa: Country report: Ethiopia. The Oakland Institute, Oakland, USA.
26. Human Rights Watch. 2012. "Waiting here for death" Forced Displacement and "Villigization" in Ethiopia's Gambella Region.
27. Hurni, H. 1998. Agroecological Belts of Ethiopia: Explanatory notes on three maps at a scale of 1:1,000,000. Research report for Soil Conservation Research Programme, Centre for Development and Environment University of Bern, Switzerland in association with The Ministry of Agriculture, Ethiopia.
28. Jarvis, A., H.I. Reuter, A. Nelson, and E. Guevara. 2008. Hole-filled SRTM for the globe Version 4. CGIAR-CSI SRTM 90m Database. Available from: <http://srtm.csi.cgiar.org>. [Accessed 6 December 2012].
29. Johnson, D. L. and L.A. Lewis. 1995. Land degradation: Creation and destruction. Cambridge: Blackwell Publishers.
30. Keeley, J. and I. Scoones,. 2000. Knowledge, power and politics: the environmental policy-making process in Ethiopia. *The Journal of Modern African Studies*, 38 (1), 89 - 120.
31. Knaup, H. 2008. Green gold rush: Africa becoming a biofuel battleground. *Spiegel Online International*. Available from: <http://www.spiegel.de/international/world/green-gold-rush-africa-becoming-a-biofuel-battleground-a-576548.html>. [Accessed 14 May 2010].
32. Lakew, H. and Y. Shiferaw. 2008. Rapid assessment of biofuels development status in Ethiopia and proceedings of the national workshop on environmental impact assessment and biofuels. Addis Ababa: MELCA Mahiber.
33. Lavers, T. 2012. "Land grab" as development strategy? The political economy of agricultural investment in Ethiopia, *Journal of Peasant Studies*, 39(1), 105–132.
34. Makki, F. 2012. Power and property: commercialization, enclosures, and the transformation of agrarian relations in Ethiopia, *Journal of Peasant Studies*, 39(1), 81-104.
35. Meckelberg, A. 2012. "Land Grabbing" in Ethiopia: A historical perspective from Gambella, South-Western Ethiopia, *Informationsblätter/Deutsch Äthiopischer Verein* [German Ethiopian Association] June 2012, 10-13.
36. Mesfin, M. 2012. New agency likely to administer land for agricultural investment. *Addis Fortune*. Available from: <http://farmlandgrab.org/post/view/21470> [Accessed on 19 January 2013].
37. MoFA (Ministry of Foreign Affairs). 2010. Powerpoint presentation: Agricultural investment opportunities in Ethiopia. Available from: <http://tinyurl.com/bmy7q66> . [Accessed 4 February 2011].
38. MoARD (Ministry of Agriculture and Rural Development). 2011. Ethiopian agricultural portal. Available from: <http://www.eap.gov.et/index.php?q.node/835>. [Accessed on 7 November 2011].
39. MoARD (Ministry of Agriculture and Rural Development). n.d. Technical report on Major Agro-Ecological Zones (MAEZ). Addis Ababa: Federal Democratic Republic of Ethiopia.
40. MoFED (Ministry of Finance and Economic Development). 2003. Rural development policy and strategies. Addis Ababa: Federal Democratic Republic of Ethiopia.
41. MoFED. Ministry of Finance and Economic Development. 2006. Ethiopia: Building on progress. A plan for accelerated and sustained development to end poverty (PASDEP). 2005/06-2009/10 Volume I: Main Text. Addis Ababa: Federal Democratic Republic of Ethiopia.
42. MoME (Ministry of Mines and Energy). 2007. Biofuel development and utilization strategy, pp. 18. Addis Ababa: The Federal Democratic Republic of Ethiopia.
43. Nalepa, R.A. and D.M. Bauer. 2012. Marginal lands: the role of remote sensing in constructing landscapes for agrofuel development, *Journal of Peasant Studies*, 39(2), 403-422.

44. Oakland Institute. 2011a. Understanding land investment deals in Africa: Saudi Star in Ethiopia. Land Deal Brief, June 2011.
45. Oakland Institute. 2011b. Understanding land investment deals in Africa: Half a million lives threatened by land development for sugar plantations in Ethiopia's Lower Omo Valley. Land Deal Brief, September, 2011.
46. ORDA (Organization for the Rehabilitation Development of Amhara). 2011. ORDA's five years experience (2006-2010) in *Jatropha curcas* development in the region. Addis Ababa:ORDA.
47. Pearce, F. 2011. Agribusiness boom threatens key African wildlife migration. *Yale Environment 360*. Yale School of Forestry and Environmental Studies. Available from: http://e360.yale.edu/feature/agribusiness_boom_threatens_key_african_wildlife_migration/2377/ (Accessed 1 March 2013).
48. Rahmato, D. 2011. Land to investors: Large scale land transfers in Ethiopia. Addis Ababa, Ethiopia: Forum for Social Studies.
49. Robbins, P. 2004. *Critical introductions to Geography: Political Ecology*. Oxford: Blackwell Publishing.
50. Schuschnigg, A., T. Lee, and Z.T. Denu. 2009. Assessment of the value of the protected area system of Ethiopia: Making the economic case Volume II. Report prepared by ÖBf AG for Ethiopian Wildlife Conservation Authority (EWCA).
51. SOS Sahel Ethiopia. 2010. Pastoralism in Ethiopia: its total economic values and Development challenges. Addis Ababa, Ethiopia: SOS SAHEL.
52. Shete, M. 2011. Implications of land deals to livelihood security and natural resource management in Benshanguel Gumuz Regional State, Ethiopia. Paper presented at the International Conference on Global Land Grabbing, 6–8 April, ISS, University of Sussex, UK.
53. SPGM (Strategy and Policy Group Meeting Sahel and West Africa Club). 2009. Pressures on West African land: Reconciling development and investment policies: Recent studies and declarations. Bamako: Sahel and West Africa Club (SWAC)/Organization for Economic Cooperation and Development (OECD).
54. Stebek E.N. 2012. Between "land grabs" and agricultural Investment: Land rent contracts with foreign investors and Ethiopia's normative setting in focus, *Mizan Law Review*, 5(2), 175–214.
55. Tamrat, I. 2010. Governance of large scale agricultural investments in Africa: The case of Ethiopia. Paper presented at the World Bank Conference on Land Policy and Administration. 26-27 April: Washington DC.
56. USAID Livelihoods Integration Unit (LIU)/ MoARD). 2010. The livelihoods atlas for Ethiopia. Available from: <http://www.feg-consulting.com/spotlight/an-atlas-of-ethiopia-livelihoods>. [Accessed 4 October 2012].

Appendix I: Interview respondents

Respondent	Organization	Location	Date conducted
A	Agricultural Investment Support Directorate	Addis Ababa	1/8/2013
B	Bahir Dar University	Bahir Dar	1/15/2013
C	Amhara Bureau of Environmental Protection Land Administration and Use	Bahir Dar	1/17/2013
D	Agricultural Investment Support Directorate	Addis Ababa	1/10/2013
E	Ministry of Water and Energy	Addis Ababa	1/18/2013
F	Organization for the Rehabilitation of Amhara	Bahir Dar	1/15/2013
G	Addis Ababa University	Addis Ababa	1/10/2013

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The Land Deal Politics Initiative launched in 2010 as an 'engaged research' initiative, taking the side of the rural poor, but based on solid evidence and detailed, field-based research. The LDPI promotes in-depth and systematic enquiry to inform deeper, meaningful and productive debates about the global trends and local manifestations. The LDPI aims for a broad framework encompassing the political economy, political ecology and political sociology of land deals centred on food, biofuels, minerals and conservation. Working within the broad analytical lenses of these three fields, the LDPI uses as a general framework the four key questions in agrarian political economy: (i) who owns what? (ii) who does what? (iii) who gets what? and (iv) what do they do with the surplus wealth created? Two additional key questions highlight political dynamics between groups and social classes: 'what do they do to each other?', and 'how do changes in politics get shaped by dynamic ecologies, and vice versa?' The LDPI network explores a range of big picture questions through detailed in-depth case studies in several sites globally, focusing on the politics of land deals.

Land for agricultural development in the era of 'land grabbing': A spatial exploration of the 'marginal lands' narrative in contemporary Ethiopia

In response to concerns over the potential of land leases for new agricultural projects to displace rural populations and impact food security, the Ethiopian government asserts that only 'marginal', 'barren' or 'wasteland' is being leased to investors. This paper draws on a wide variety of source material in order to untangle the land classification of 'marginal' land as it is used colloquially across Ethiopian institutional and policy environments and compares this promoted understanding of marginality to the socio-cultural and biophysical characteristics of actual land areas either already transferred to investors or currently deposited in the federal 'land bank' to be allocated at a future time. This analysis reveals that 'marginal' lands are not unused and/or degraded as often implied but are potentially productive lands that overlap national park boundaries or are currently supporting nomadic and semi-nomadic livelihoods. In addition, this paper contends that marginal lands are not categorized according to any shared criteria, but applied to the lands in weaker regions that are not being put to highest value use according to the state's market-oriented developmental strategy.



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