

Household Livelihoods and Increasing Foreign Investment **Pressure in Ethiopia's Natural** Forests

By Kathleen Guillozet and John C. Bliss

Paper presented at the International Conference on Global Land Grabbing
6-8 April 2011

Organised by the Land Deals Politics Initiative (LDPI) in collaboration with the Journal of Peasant Studies and hosted by the Future Agricultures Consortium at the Institute of Development Studies, University of Sussex

Household Livelihoods and Increasing Foreign Investment Pressure in Ethiopia's Natural Forests

Kathleen Guillozet and John C. Bliss, Oregon State University College of Forestry, Department of Forest Ecosystems and Society

Abstract

Foreign investment in Ethiopia's forestry sector is currently limited, but agricultural investments that affect forests, largely through forest clearing, are commonplace. We describe the nature of forest investments and outline the challenges and opportunities associated with implementing them. Given the key role that forests play in rural livelihoods, new tenure arrangements will have significant implications for communities located at the forest-farm interface. Evidence from a case study in the Arsi Forest area of Oromia Regional State is used to examine historic and contemporary forest benefit distributions and investigate the the potential for conflict over competing forest access claims associated with new investments.

1 Introduction

The Ethiopian government expressed renewed interest in attracting foreign investment to the nation's forestry sector through its Forest Development, Conservation and Utilization Proclamation (Proclamation No. 542/2007). However, limited capacity to manage administrative and regulatory elements of foreign investments, pervasive tenure uncertainty and rural livelihood insecurity all point to the need for caution as the government proceeds with land deals involving forests. This paper aims to clarify discussions relating to foreign investment in Ethiopia's forests by describing the nature of these investments and outlining the challenges and opportunities associated with implementing them. First, we describe issues relevant to foreign investment in forests throughout Ethiopia. Second, we outline characteristics of households at the farm-forest interface who are likely to be directly affected by new investments. Third, we use evidence from a case study of a highland community located at the forest-farm interface to highlight competing forest access claims in a specific context and outline recommendations for addressing them.

Recent publications on agricultural land grabbing (e.g. Cotula, Vermeulen et al. 2009; Rice 2009; Daniel and Mittal 2010) have raised the visibility of concerns over equity and social justice issues associated with contemporary foreign investments in natural resources in the global South. Ethiopia's economy is firmly grounded in the agricultural sector, with an estimated 83 percent of the population engaged in agricultural livelihoods. The government's formal economic development approach, termed *Agricultural Development Led Industrialisation* (ADLI), highlights the central position of agriculture in economic planning and prioritisation and heightening the significance of investments in the country's productive land base. Foreign investments in the forestry sector are distinct from agricultural investments that affect forests. The latter include forest clearing for farm establishment, a practice with a decades-long history driven by a range of government policies affecting land use, resettlement and

investment incentives. Forest clearing for agricultural establishment is a common practice in both highland and lowland regions of Ethiopia. In most contemporary cases, forests are cleared with the use of fire, leaving forest products largely unexploited (see, for example, the case of Bale Mountain described by Teshome, Kinahan et al. 2010). The clearing of dryland deciduous woodlands for cash crop production (primarily sesame, sugarcane and cotton) occurs frequently in lowland areas. The prevalence of land conversion in the lowlands is linked to the resettlement of highland agriculturalists into traditionally pastoral areas (Lemenih, Feleke et al. 2007) and to a climate of loosely regulated natural resource exploitation and weak government influence in remote areas (Government Scientist, pers. comm. 8 December, 2010, Addis Ababa). Contemporary highland forest clearing is typically the result of forest encroachment for agricultural expansion including tea and coffee cultivation by both large-scale investors and rural people (Reusing 2000; TAM Agribusiness 2004). These actions are also affected by external markets and government policies.

2 Processes driving forest investment in Ethiopia

Researchers commonly identify land and water scarcity as a primary driver of foreign investment in the global South (e.g. Rice 2009; Deininger, Byerlee et al. 2011). Zoomers (2010) emphasises additional contemporary processes including increased foreign demand for non-food crops (especially biofuels), conservation, tourism and land purchases by retirees and Diaspora. In Ethiopia, investment trends affecting forests reflect historic relations between governments, elites and international institutions surrounding control over natural resource benefits.

2.1 Narratives of under-exploitation and overexploitation

Ethiopian forestlands have long been characterized as under-exploited areas in need of economic development or as overexploited areas in need of conservation-oriented management. Over the past few decades, calls for increased foreign investment in agricultural practices that involve forest clearing (under-exploitation) have paralleled clearly articulated plans to halt deforestation and land degradation (overexploitation), creating conflicting policy recommendations. This conflict is illustrated in the two quotes juxtaposed below. The first is from a report issued by a United Nations Emergencies Unit for Ethiopia (UNEUE) field officer commenting on strategies for incentivizing agricultural investment by Ethiopian citizens returning after the fall of the Derg regime.

Land allocations for investment purposes is ongoing but government authorities need to be encouraged to move investors to hinterland areas and allocate the land located near the villages to returnees. This may require compensation to investors for clearing and infrastructure facility development (Shank 1994:2).

The second quote is taken from the Ethiopian National Action Programme to Combat Desertification, drafted in conjunction with a separate United Nations body, the Convention to Combat Desertification (UNCCD).

The policy provisions contained in this draft...encourage the development of forests by individuals, organizations and government and the designation of protected forests and productive forests to be administered in accordance with laws to be enacted for each. The draft stresses the need to give security of ownership of forest products to the developer and the importance of protecting every kind of forest from natural and man-made destruction (FDRE 1998:62).

These quotes illustrate the lack of integration between forest conservation and market liberalization that confound efforts to develop transparent and equitable strategies for natural resource-based economic development. They also mirror patterns identified in relationships between the state and private enterprise in peripheral resource-rich areas throughout the world that have led to forest benefit divestment from rural people to outside elites (Scott 1998; Rudel 2007; Lunstrum 2009; Scott 2009). Cursory references to laws governing rights and restrictions over forest use like those mentioned in the second quote are sufficient to propel processes forward, allowing forest benefits to be extracted before specific rights, restrictions and responsibilities are articulated. The often multi-decadal planning timelines that characterise forest management endeavours compound challenges associated with ensuring that investors abide social and ecological protections.

The absence of clear institutional authority and communication between agencies further hampers transparency in forest management. For example, foreign investors work primarily with the Ethiopian Investment Authority in establishing their business operations, while government forestry specialists are housed in the Forestry Research Centre, a subdivision of the Ministry of Agriculture. Forestry is marginalised by the current government as evidenced by budgetary allocations. In 2010, these amounted to approximately 6 million Ethiopian birr (£226,110) to the Forestry Research Centre, as compared to the 90 million Ethiopian birr (£3,391,792) allocated to Agriculture. This difference may be attributed to the political importance of agriculture. Annual crop production figures are closely monitored, especially in election years, and high production is associated with political success, compelling officials to use the means at their disposal to favour agricultural output, sometimes at the expense of other land uses like forestry or livestock grazing.

Forestry-based emissions reduction programmes are approved and managed through a different government office, the Environmental Protection Authority. Jurisdictional separations make it difficult to identify and monitor investments that affect forests. While forest investors must submit a Forest Management Plan to the Ministry of Agriculture as part of their application process, only those projects that fall within the forestry sector require these approvals. Agricultural projects that involve forest clearing are seldom reviewed by forestry officials.

Integration across agencies is further hampered by financial benefits that are granted to those who succeed in attracting foreign investors. Regional actors have incentive to attract and retain foreign investors to their districts because it allows them to compete more effectively for scarce regional development funds for infrastructure improvements that bring status and additional economic development opportunities (Government Official, pers. comm. 18 May 2010, Addis Ababa). There exist a number of financially unattractive aspects of forest sector investment in Ethiopia, but foreign investors are perceived as having securer rights in comparison to domestic investors, giving them a comparative advantage:

There is unwillingness on the behalf of domestic investors to invest in forest resources for a number of reasons: length of time for return on investment,

insecure land tenure, disputes with local people, problems in the courts because judges and police are subject to bribes. [Foreign investors are less vulnerable to these problems because] their interests are more visible (Scientist, pers. comm. 20 May 2010, Addis Ababa).

Despite these additional protections, investment has been sluggish. We outline potential reasons in the following section.

2.2 Forest Investment Challenges and Opportunities

Formally recognised private foreign investment in Ethiopia's forestry sector, defined here as activities involving afforestation, reforestation, and non-timber forest product market development, is currently limited. Of the handful of foreigners who made inquiries about investment opportunities to a government forestry official over the past few years, only one was moving forward with developing a business plan and securing appropriate permissions (Government Official, pers. comm. 18 May 2010). Concerns about feasibility, human resources, security of long-term lease arrangements and perceptions of political instability are commonly raised by foreign investors. The lack of investment is rooted in ecological, socio-economic and institutional challenges outlined briefly below (Table 2.1) and expanded upon in section 4. These challenges combine to create a climate of uncertainty surrounding forest investment that favours illegal conversion of forested lands to agriculture by government actors, large-scale investors and rural people, threatening the livelihoods of households living at the forest-farm interface and limiting future afforestation and reforestation possibilities.

Table 2.1: Challenges to forest management and investment in Ethiopia

Ecological	Socio-economic	Institutional
Lack of knowledge & probable	Unclear tenure arrangements	Competing jurisdictional
high expense of native tree	and boundaries	authority over activities
propagation & establishment		affecting forests
	Lack of economic	
Lack of clear guidelines for	diversification	Weak enforcement capacity
native vs. exotic replanting		
obligations	Lack of funding for forest	Political inferiority of forestry
	management	to agriculture
Increased pressures on forest		
from land degradation,	Human resettlement driving	Inexperience in enforcing
shrinking farm size & reduced	land conversion & new land	reforestation regulations
grazing land	use practices	
		Unclear reporting
Forest fragmentation	Ethnic tension	requirements
	Currency inflation	

The challenges described in Table 2.1 are additional to investment challenges common to most forestry ventures, including delayed and intermittent benefit flows, large capital outlays and dependence upon fluctuating markets (Bliss and Kelly 2008).

Ethiopia's Forest Development, Conservation and Utilization Proclamation encourages private investment in natural forests, outlining incentives such as tax abatement programmes and low cost long-term land concessions. A more detailed implementation plan intended to serve as an investor guide may be published in 2011 (Government Official, pers. comm. 18 May 2010, Addis Ababa). Investors are allowed to harvest and process remaining timber, import processing equipment at a tax-free status, and establish timber plantations using exotic or native species at their discretion (Forest investor, pers. comm. 10 April 2010, Addis Ababa). Specific lease agreements are negotiated between investors and local, regional and national government entities.

Some scientists envision increased foreign and domestic investment in Ethiopia's forestlands as a means to alleviate rural poverty and enhance forest ecosystem protection and function (Bongers and Tennigkeit 2010). The high demand for wood products in Ethiopia and neighbouring East African countries may justify increased investment in the forestry sector (Bekele-Tesemma 2007), but conditions described in Table 2.1 have stifled investor confidence.

While a number of the challenges outlined above weigh heavily in the decision making processes of foreign investors, others may not enter into typical cost-benefit analyses. Project impacts that are perhaps least likely to be understood or acknowledged by investors pertain to the rights of rural residents. The invocation of under-exploitation and overexploitation narratives to describe forest utilisation legitimizes foreign entry into these markets, a point we return to later in the paper. Evidence from the agricultural sector underscores three additional concerns pertaining to the broad affects of foreign investor presence on forests and forest-dependent communities:

- 1. Aside from low-skilled and low-waged jobs, foreign investment may not yield many direct benefits to the rural poor and may leave the poorest more vulnerable (Melesea and Helmsing 2010). A recent global assessment of the impacts of conservation programs on poverty found that timber harvest rarely benefits the poor, and non-timber forest product programs have low impacts in terms of poverty reduction (Leisher, Sanjayan et al. 2010).
- 2. Forced human resettlement remains an issue of concern (Hammond 2008). It affects relationships between people within communities, land use practices and socio-political mobilization.
- 3. Inadequate domestic markets for agricultural inputs, outputs and financial services, which may be the most important limiting factors to smallholder income growth, are not necessarily improved by the entrance of large-scale investors into a sector (Hazell, Poulton et al. 2010).

Increased foreign investment is associated with economic development and poverty alleviation by many economists, development agencies and governments (Haile and Assefa 2006). The rationale that it will "contribute significantly to development-through the injection of capital, technology, management know-how and market access" (UNCTAD 2000) may not hold true for most rural people, particularly given the constraints surrounding free expression and market

access (HRW 2010). In the following sections we elaborate upon the potential implications of increased foreign investment for rural livelihoods.

3 Communities at the Forest-Farm Interface

The forest-farm interface is the locus of investment attention in highland forests. This area is home to rural households with unique livelihood characteristics and benefit claims to forest resources that distinguish them from other agricultural households.

3.1 The forest-farm interface

The forest-farm interface is characterised by ecological, social and economic change. Defined here as the zone within or near forests occupied by smallholder farmers, the forest-farm interface is historically remote from markets and typically difficult to access (Fisher and Hirsch 2008). It often includes both *ambiguous lands*, or lands cultivated by people who do not have official use rights (Sato 2000), and legally cultivated lands. Households located within Ethiopia's forest-farm interface tend to be highly dependent upon forest resources for fuelwood, livestock grazing and building materials (Mamo, Sjaastad et al. 2007; Yemiru, Roos et al. 2010). We focus attention on these households because they are at the greatest risk of livelihood loss under foreign investment in highland forests.

Undisturbed highland forests represent a small fraction of remaining highland forests, estimated at 0.2 percent of the land area in the late 1990s (Reusing 1998). National Forest Priority Areas (NFPAs) were established in the late 1980s (Cheng, Hiwatashi et al. 1989) giving the government control over the bulk of the remaining natural forest stands, most of which are found in remote parts of the Gambella and Oromia regional states (Reusing 2000). Natural forests are managed by the government through a system of 58 NFPAs. Thirteen of these are managed under integrated forest management systems involving local communities. While most remaining forestlands are located within NFPAs, less than 10 percent of state forest boundaries have been officially mapped (World Bank 2010), and boundary demarcation can be fraught with conflict.

According to an official in Ethiopia's Forestry Research Centre (FRC), investment will be directed towards 'abandoned lands' and places 'where forests are being cleared or encroached' (Government Official, pers. comm., 18 May 2010). This statement references the dual narratives of under-exploitation and overexploitation that are infused throughout discussions on natural resource management in Ethiopia. It also summarises government rationales for land seizure in the lowlands and the highlands. Lands termed 'abandoned' are located mainly in the lowlands, where pastoral livelihoods predominate. Widespread use of land for seasonal grazing and shifting cultivation makes the categorising of land as 'abandoned' questionable (Cotula, Vermeulen et al. 2009; Vermeulen and Cotula 2010). Diffuse infrastructure and institutional influence in the lowlands exist in contrast to the more concentrated settlement and strong political networks found in the highlands. Here, processes of dispossession centre on claims that people are encroaching rather than that land is unused. Uncertainty over forest

boundaries and the infusion of Northern conservation values creates the political space necessary for the government to remove encroaching farmers, thereby opening land for alternative uses. This process is described further in section 4.

3.2 Land Tenure

Land privatization is a topic of considerable dispute in Ethiopia (Crewett and Korf 2008; Ali, Dercon et al. 2011). The government owns all forest and agricultural land, granting usufruct rights to citizens in the case of farmland and maintaining all management authority in the case of forestlands. Farmland cannot be bought or sold, but use rights can be transferred within families and people can lease their farmland for limited periods of time. Contemporary farmland distribution is the outcome of complex circumstances including tradition, allocation by the socialist Derg between 1974 and 1991, and local *Kebele*-level (Peasant Association) decisions (Kebede 2002). Positioned at the centre of contentious debates preceding the May 2010 elections, land privatization was characterised as either the path to productivity and efficiency or as a neoliberal conspiracy aimed at depriving rural people of land rights (Kidan 2010).

Econometric studies in Ethiopia have not provided definitive evidence that tenure issues significantly affect people's land use decisions, or that most people consider their tenure status as insecure (Benin, Ahmed et al. 2005; Deininger and Jin 2006; Crewett and Korf 2008). Those who argue in favour of enacting policies to ensure more secure and transferable land rights tend to approach the issue from the question of how to increase long-term investments by farmers in their land (Ali, Dercon et al. 2011) rather than examining the potentially harmful implications of formalising land transfer rights for marginalised people. In the case of forests, access has been negotiated between local actors and the state in processes that have unfolded over decades. Peters (2009) describes such land relations as "open to interpretation...[she asserts that] careful attention has to be paid to the specific meanings and constructions, including narratives and stories placed by different social actors on the principles justifying access, use, and control" (p. 1322). This sentiment is central to concerns over the impacts of foreign investment in forestry on landholders located at the forest-farm interface and informs sections 4-5.

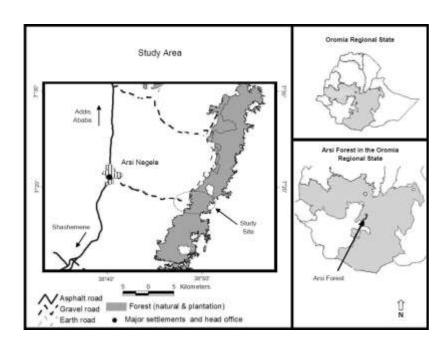
4 Case Study Evidence

We provide evidence to describe historic and contemporary land use change and forest benefit distributions in a specific case. We investigate how these land relations inform contemporary resource rights in a community located at the forest-farm interface and emphasize the ecological, socio-economic and institutional challenges presented by the new tenure arrangements that would likely accompany foreign investment.

4.1 Boundaries of the Case

Case study evidence is based upon field research conducted in Ethiopia in September 2009-May 2010 and December 2010 in a community and an adjacent natural forest area managed by a government operated Forest Enterprise (referred to subsequently as the Enterprise). Data include open-ended interviews with purposively selected experts and community members, a household livelihoods survey, forest plot measurements, ethnographic field notes and secondary sources. The household livelihoods survey uses a stratified random sampling design and is based upon the USAID Famine Early Warning System's livelihood profile system (USAID 2008) modified to include non-marketed extracted forest resources. The household wealth ranking and historical timeline group interview is adapted from Laderchi (2005).

The forest area studied in the case covers approximately 1,220 hectares and is classified as upper wet broad-leaved Afro-montane rainforest. This area is part of a larger natural forest and plantation complex known as the Arsi Forest, which extends over 21,513 hectares, some 28 percent of which is plantation forest (Map 4.1). Natural forests persist largely in areas that are steeply sloped and difficult to access, while flatter areas have been converted to farmland (Poulsen 1973). The area has been inhabited by Muslim Oromo agro-pastoralists for over one hundred years. The forest and surrounding villages are located in a transition area between two agro-ecological zones, known as the *Weina Dega* or *Baddaa Dareetti* (temperate, cool subhumid highlands) located between 1,500-2,300 meters in elevation and the *Dega* or *Badaa* (cool and humid highlands) located between 2,300-3,200 meters in elevation (Aalbaek and Kide 1993). Primary crops include maize, potatoes and to a lesser extent, wheat.



Map 4.1: Study site (Source: modified from Wondo Genet GIS Department, 2008)

4.2 Historic Land Use Change

According to community elders, forests in the area under study extended 17 kilometres west to the town of Arsi Negele and some 20 kilometres south to the town of Kofele as recently at 70 years ago. These forests were punctuated by highland bamboo thickets, pastures and *chafas* (wetlands) which were used as seasonal grazing areas. Areas that have remained too wet for cropping comprise what is left of community grazing lands.

Forests were heavily exploited by Italian and Ethiopian sawmill operators during the reign of Haile Selassie (1930-1974). Forest concessions were granted by Emperor Selassie to military officials, religious institutions and patrons. Concessions contracted to sawmillers included mandatory replanting obligations, but regulations were not enforced and companies neglected to follow them (Poulsen, 1970). The Chilalo Agricultural Development Unit (CADU), a joint Ethiopian-Swedish development programme was established in the late 1960s and outlined their mandate as follows:

An area of forest roughly estimated at 100,000 ha. seemed to be disintegrating annually and the almost total elimination of all real forest from the country seemed probable within 30 years at the most. Against this background, the urgent forestry needs within the Project area seemed to be:

- Protection and rational utilization of the remaining forests.
- Increased reafforestation of erosion-prone slopes and other areas available for planting.
- Improved wood utilization (Poulsen 1970:3)

This approach is consistent with the sentiments expressed in the quote by the Ethiopian Government and UNFCCC cited earlier in this paper. Both invoke under-utilisation and over-utilisation narratives in calls for heightened protection from anthropogenic destruction and greater efficiency and productivity in forest use.

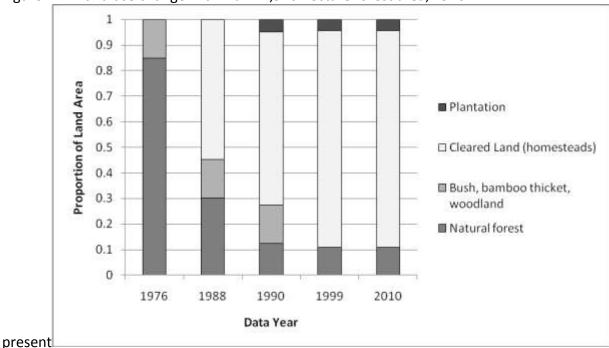


Figure 4.1: Land use change within a 141,976 hectare forest area, 1976-

Sources: MoA 1990; Didha 2008. Notes: 1) Land cover estimates of "Bush, bamboo thicket, woodland" are carried backwards from 1990 figures as placeholders; actual pre-1990 figures are unknown. 2) The area includes the study site as well as lands that today are under the jurisdiction of different Kebeles.

A dramatic conversion of natural forests to farmland occurred in the study area between 1976 and 1988 under the Derg regime (Figure 4.1). During this period, every household was granted a small farm, usually around two hectares, based in part on household size. At the same time, additional organized timber harvesting was undertaken by the Enterprise with technical assistance from the Swedish government. Timber felling was guided by a prescription that called for the conversion of 87 percent of the natural forest to plantation forest for state revenue generation and for the implementation of restoration and conservation activities on the remaining 13 percent of the forest (MoA 1990).

A forest management plan developed by Swedish consultants divided the natural forest into management units or blocks and established a series of 'working circles' based on forest cover, slope and access (Table 4.1). In 1990, the project produced over 2 million seedlings, targeting approximately 2,000 ha annually for replanting. Insufficient revenues to execute the plan drove overharvesting of standing native timber to make up for account deficits and led to the eventual halt of plantation development. Over 15,000 hectares of plantation were established in the Arsi Forest by the 1980s, but none of the natural forest improvements outlined were realised. While they provided part of the original rationale for forestry engagement in the area, restoration and conservation objectives were not implemented, providing evidence of previous use of conservation language (narratives of overexploitation) to legitimize resource dispossession.

Table 4.1: Natural Forest Working Circles in Study Site (1990)

	Working Circle Type (ha)							
Block#	Reforestation	Wildlife	Protection	Selection	Natural Forest Improvement	Bamboo Development	Nature Reserve	Total
7	6455	0	0	0	0	0	0	6455
8	5455	0	344	374	548	0	0	6722
9	6138	0	0	337	374	0	0	6849
10	4073	0	788	366	1125	0	0	6352
11	7339	0	0	0	0	0	0	7339

Adapted from: MoA 1990

Plantation harvests have accelerated into the 2000s as seedlings planted in the 1970s have matured, leading to significant revenue generation. The success of the programme led to the establishment of additional Enterprises in other parts of the Oromia Regional State, effectively expanding state revenue generation (Table 4.2). The Enterprise contributes to a range of community development projects such as school and clinic construction in Kebeles that border plantation and natural forests. They have engaged in efforts to increase farm incomes through Eucalyptus seedling disbursements and the provision of supplementary agricultural extension services and are currently exploring options for devolving some natural forest management authority to communities. Still, the vast majority of revenues generated from the plantation and natural forest bypass the communities that live near them.

Table 4.2 Extent (ha) and Value (£) of Forest Enterprise Landholdings, 2010

Name of		Estimated			
Enterprise	Plantation Forest	Natural Forest	Bare Land	Total	Value (£)
Arsi	15,162	186,690	32,800	234,652	26,269,000
Bale	3,483	248,536	185,089	437,108	26,957,700
Borena-Guji	6,389	97,215	106,175	209,779	18,287,680
Addis Ababa	22,036	16,694	4,174	42,904	7,981,870
Hararge	4,958	10,278	21,183	36,419	6,464,500
Ilubabor	4,446	359,862	6,936	371,244	38,993,800
Jimma	8,948	181,792	36,525	227,265	34,212,670
Wallaga	10,405	100,527	75,436	186,368	15,403,750

Total	75,827	1,201,594	468,318	1,745,738	174,570,970
-------	--------	-----------	---------	-----------	-------------

Adapted from: Oromia Forest Enterprise 2010

4.3 Forest Regulations and Enforcement

In this section we describe the historical basis of current access claims and the selective nature of regulatory enforcement. Discrepancies between ownership claims on paper and in practice can be traced from the present back to the early days of Amhara rule in the region. Inconsistency in enforcement also appears to have a long history, positioning regulations as secondary to ongoing processes of negotiation over forest access in the context of changing social relations.

Following conquest of the Arsi area at the end of the 19th century, forests became the property of the state (Table 4.3). Concessions of land, with accompanying rights to local labour, were granted by the Emperor primarily to Amhara military officials, widows and other outside elites (Poulsen 1973). While the army and police were summoned on numerous occasions (as recently as spring 2010) to enforce access restrictions, benefit distributions represent a chain of less contentious interactions between the state, outside elites and local people. Specific regulations governing forest access have remained relatively uniform (Table 4.3), though enforcement has varied dramatically over time.

Table 4.3: Forest regulations and governing bodies in Arsi Forest, 1930-present

Regime	Forest Regulations	Arsi Forest Governing Institution
Haile Selassie 1930-1974	Forestlands the property of the Emperor. Hunting days set by the government.	Imperial Court
1330 137 .	Permission required for grazing, wood	
	collection and other activities. Concessions	
	granted at Emperor's discretion.	
The Derg	Forestlands the property of the State.	Munessa-Shashemene
1974-1991	Written permission required to hunt, settle,	Integrated State Forest
	fell trees, collect, load or transport any	Development and
	forest product, graze cattle and remove	Utilization Project, the
	resources from the forest. Exceptions	Chilalo Agricultural
	include taking fallen branches, leaves, bark,	Development Unit
	setting beehives or harvesting honey.	(CADU)
Ethiopian	Forest development encouraged.	Arsi Forest Enterprise
People's	Permission required to cut trees, settle	
Democratic	temporarily or permanently, graze	
Republic Front	domestic animals, hunt, carry cutting saws	
(EPDRF)	and tools used for cutting trees or	
1992-present	extracting honey.	

Reports indicate that while the state made early claims to forest resources, the reach of their authority has been moderated by local entitlements. In the early days of Swedish involvement in the forest area under study, project leaders identified a need to establish formal forest boundaries. The Forestry Department sent a team of surveyors to the study site, who were met in the following manner:

The team found itself faced by a hostile population and returned almost immediately to Addis Ababa without having achieved anything...Neither the local forestry commissioner, nor the guards stationed in the forest, knew anything about the boundaries, or if they knew they were unwilling to pass on the information (Poulsen 1973:10-11).

This anecdote highlights the ill-defined nature of many access claims. While few may have questioned the state's right to levy taxes, further steps to establish a formal presence in the area and exert additional controls over resources were met with resistance.

During initial government efforts to establish plantations in the 1970s, seedlings were uprooted by locals or trampled by livestock. Armed military were brought in to guard plantations until local people eventually accepted them.

Contemporary community members describe regulations as being tightly enforced under the Derg and loosely enforced under the current regime. The tight enforcement of forest access restrictions by the Derg was viewed positively by interviewees in hindsight. In a timeline exercise conducted with community elders, interviewees described the early days of the Derg as a time of abundance, as exemplified in the following quote: "At that time people were afraid and the Enterprise was keeping the forest well. Many people used the forest for production of honey and the people said 'the forest is our shade' so it should not be touched." Another interviewee stated: "the forests were full and wide and every species was present. We used the forest for farming equipment and grasses...all people were keeping the forests, even elders and youth" (Community Elders, pers. comm. 18 December 2009, village). These quotes reveal that actors actively used forests in ways that did not, in their perceptions, conflict with a climate of rigid enforcement and that they saw themselves as forest managers and stewards. When examined in the context of diminishing natural forests shown in Figure 4.1, the memories of abundance in the late 1970s were also perhaps strongly shaped by higher forest cover and lower human population densities that characterized the region at the time.

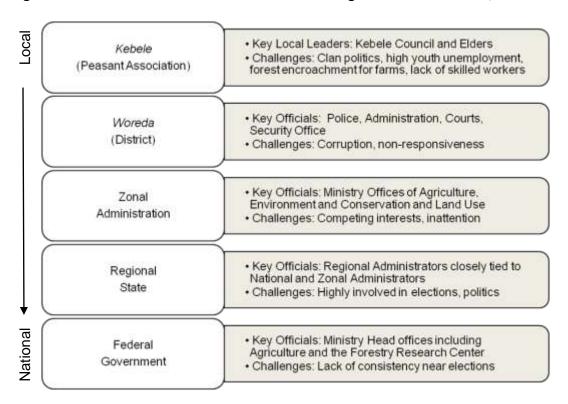
Today, plantations are considered well guarded in comparison to natural forests. With the exceptions of limited grazing and periodic access to slash from plantation thinnings, plantation production feeds urban rather than local markets. Community forest product consumption goes largely unregulated in natural forests. Higher order offenses such as timber harvest are sometimes brought to the attention of local police, but rarely result in legal convictions. Corruption, insufficient manpower, a lack of commitment, authority and politicking are all cited as undermining factors. The subjectivity of regulatory enforcement contributes to a sense that forest access is politically and socially negotiable.

Changing values and policies also shape perceptions of resource rights. When asked about the selective harvest by local people of one species (*Podocarpus falcatus*) for fuelwood, a guard explained that during the Derg, the government wanted to eradicate large indigenous trees as

part of its plan to convert the natural forest to plantation. People were informally permitted to cut large indigenous species and over time came to believe that this was their right (Forest Guard, pers. comm. March 18, 2010, village).

Enforcement of forest regulations involves a range of actors with different levels of authority (Figure 4.2). Local forest experts identified what they saw as challenges to effective enforcement at different levels of government, and their responses are shown under the heading "Challenges" in Figure 4.2. Inattention to forest regulatory enforcement is emphasized throughout. Forest protection is a common rallying point in political speeches and community events, but it rarely leads to substantive action. Forest guards expressed frustration at the weak enforcement by government officials: "Officials are afraid to enforce regulations because they don't want to harm their standing in the community or their chances of re-election" (Forest Guard, pers. comm. 18 March 2010, village). This quote exposes the political nature of enforcement, and reveals the tension between rhetoric and action. Leaders routinely advocate for forest conservation while simultaneously working to maintain their identity as egalitarian men of the people.

Figure 4.2 Government entities involved in forest regulation enforcement, Arsi Forest



Source: Interview with local forest experts, 17 May 2010, Arsi Forest

Enforcement patterns noted here also reflect broader trends relating to forest management. In addition to the general willingness of the state to proceed with forest exploitation before specific rights and responsibilities have been detailed, the difference between regulations on paper and in practice shows how forest access is negotiable between actors over time.

4.4 Forest Benefit Distributions

In this section we turn to an investigation of forest benefit distribution from the 1880s to the present. We provide a general overview of the benefits, beneficiaries and effects of forest exploitation in the study site. Beneficiaries are divided into three broad categories: the state, outside elites and local people. While these categories are inherently limiting since they are comprised of individuals who are heterogeneous and hold a range of entitlements and capabilities, this framing provides a coarse-grained lens through which we assess forest benefit allocations.

Table 4.4 Selected Benefits, Beneficiaries and Effects, 1880s-2010

Decade(s)	Benefit	Beneficiary	Other Effects
1880s-1930s	Forest requisition	State	Marginalization of local people
1940s-1960s	Ability to grant land & labour to elites	State & Outside Elites	Social tension; Marginalization of local people
1940s-1970s	Post-harvest replanting requirements not enforced	Outside Elites	Accelerated land conversion; changing forest composition
1970s-2010	Ability to collect fuelwood, timber, graze livestock and hunt (intermittently granted)	Local People	Uncertainty regarding rules and regulations; seedling regeneration inhibited; changing forest composition
1980s	Ability to harvest native timber and convert forest to plantation	State	Accelerated land conversion; changing forest composition
1990s-2010	Forest converted to farmland	Local People	Accelerated land conversion

Benefits include the myriad ways in which actors and institutions are able to access forest resources, ranging from timber harvest to outright forest conversion for agricultural uses. Some benefits constrain other actors or institutions, some may serve as compensation for other lost benefits and most exact costs on the forest resource. Benefits take a variety of forms, and have a range of social, ecological and economic impacts. Reinvestments in forests have been limited to nonexistent.

Foreign investment will likely have broad-reaching effects on existing forest benefit distributions (Figure 4.3). These effects will be felt differently among different actors, some bringing direct livelihood impacts as in the case of restricted grazing and fuelwood collection for local people.

Figure 4.3 Effectss of new tenures (e.g. foreign investment) on forest benefits, 1940-present

New Tenure Effects	State	Local People	Outside Elites
Historic Benefit	- Timber harvest & sale - Ability to grant land to	Wildlife hunting accessMedicinal plant harvest	- Timber concession receipt
	patrons	- Religious worship	
Benefit likely to change	Receipt of bribesAbility to grant accessto locals	 Agricultural land conversion Fuelwood collection Construction material harvest Livestock grazing 	 Illegal timber harvest Inexpensive fuelwood availability
Benefit unlikely to change	Receipt of plantation revenuesReceipt of hunting permit sales	- Access to beekeeping sites	Plantation wood product availabilityRecreational wildlife hunting access

Historic benefits refer to benefits that existed largely in the past and are either less prevalent or no longer relevant today. In the case of wildlife hunting, the practice persists among local people, but in negligible numbers. Local people do not obtain permits for hunting, in contrast to outside elites, who participate in regulated trophy hunting that generates state revenues. This activity could continue under new investment schemes. Predicted lost benefits to local people under increased foreign investment scenarios represent a substantial loss. When compared to potential benefits associated with foreign investment such as land lease payments, royalties, stumpage fees and other incomes, the losses borne by the state are small, mainly consisting of the political power they forfeit in ceasing to grant local people informal access to forest resource. Payment of bribes will likely continue, possibly shifting from the courts and checkpoints to other recipients. The primary benefits that accrue to outside elites are provided through the availability of wood through plantations and fuelwood sales. The former will be unaffected by new investments.

5 Community Forest Benefits and the Potential for Conflict

The forest area under study provides the state, outside elites and local people with a range of benefits. This section details the contribution of forest resources to household livelihoods and explores the effects of forest tenure change on local communities. We describe events from a recent forest boundary demarcation exercise in the area and consider the potential for conflict that might accompany tenure changes.

5.1 Household livelihoods and forests

Data from a household livelihood survey highlights attributes of different wealth groups as they relate to forest benefits (Table 5.1). Household attributes vary in terms of average land and livestock holdings, which affect things like crop production and the ability to withstand periods of livelihood stress associated with drought, crop failure or currency devaluation. All wealth groups rely on forests to supplement their livelihoods. Forest products provide households with livestock grazing land, homestead sites, fuelwood, building materials and other non-timber forest products. Fuelwood sale is a primary means by which households in the study site generate cash income. Fuelwood demand in the area is high due in part to a thriving alcohol distillation industry in the nearby town of Arsi Negele. Households with donkeys are able to capture more revenues from fuelwood sales due to their ability to obtain higher prices closer to market, to sell larger volumes of wood, and reduce transportation costs.

Table 5.1 Household Attributes by Wealth Ranking in Study Site, 2010

,	F	Weighted			
Household Attribute	Very Poor (6%)	Poor (28%)	Medium (54%)	Better-off (12%)	Mean
Mean age of household head	42	34	49	47	44
Female-headed households (%)	33%	0	0	0	2
Mean number of people per household	6.8	6.9	10.7	14.3	9.8
Mean landholding size (ha)	0.3	0.7	1.1	1.7	1.0
Mean Tropical Livestock Units (TLUs) per household	0.93	1.54	5.04	8.85	4.3
Household crop production as a % of minimum caloric requirements	56%	72%	94%	108%	87%
Mean staple food expenditures as a % of mean total income	27%	24%	19%	12%	20%
Mean fuelwood income as a % of mean cash income	85%	65%	28%	37%	42%
Mean number of donkeys per household	0.50	0.88	1.00	2.00	1.06

Fuelwood accounts for 42 percent of mean household cash incomes in the community under study. Studies in other parts of Ethiopia have found comparable forest incomes as a percentage of total household cash incomes, at 39 percent in central Ethiopia (Mamo, Sjaastad et al. 2007), 27 percent in northern Tigray (Babulo, Muys et al. 2008) and 34 to 53 percent in the Bale Mountains (Yemiru, Roos et al. 2010). Interviewees described a social shift that has occurred in recent years in which the sale of fuelwood had become less stigmatized. While formerly only widows and the very poor would collect fuelwood for sale, now it is more common among all wealth groups. Female-headed households and women who are their

families' primary income earners are particularly dependent upon fuelwood collection due to small landholdings, their inability to plough fields and a lack of alternative income sources.

5.2 Forest Access Change and Conflict

New restrictions on forest access will compromise the ability of households to meet their livelihood needs. Access restrictions can incite conflict between communities and those who enforce restrictions. Disputes that occurred over a 2009-2010 forest boundary demarcation provide grounds to explore these dynamics.

Demarcation, or the re-establishment of forest boundaries by the state, reaffirms state claims to authority over forest benefit distributions. Homestead establishment represents a permanent claim over forest resources by households. Conflicts with local communities over homestead and farm encroachment have arisen during each demarcation over the past four decades. State response has been to reduce the size of the natural forest area by varying degrees to accommodate new farms. Due to a combination of cumulative forest loss and emerging values and revenue streams associated with ecotourism, conservation and ecosystem service payments, officials are currently less likely to consent to new homestead claims. In 2009 they elected to demolish and replant forest on homesteads that had been erected in forest areas since the previous demarcation activities of 1999.

The process of demarcation involves the assessment of the forest boundary markers and verification of land use at established points. After an initial visit, a second visit is scheduled during which boundaries are confirmed, additional data collected, meetings held. Houses and fences are demolished later by Enterprise workers in the presence of the Ethiopian military (Photos 5.1-5.2).



Photo 5.1: This photo was taken immediately following the demolition of a homestead. Household possessions are bundled in the foreground and roofing, fencing and other building

materials are piled in the mid-ground. A native Podocarpus tree is shown in the centre background.



Photo 5.2: Following discussions, a forest guard marks a remnant *Croton macrostachyus* tree in the midst of crops to demarcate the official natural forest boundary

A demarcation exercise conducted by the Enterprise, local government authorities and the Ethiopian military from the winter of 2009 through the spring of 2010 revealed that 80 households (eleven percent of all households in the community) had expanded their farms or established new homesteads (ranging in size from 0.25 to 11.25 hectares) within the boundaries of the natural forest area under study.

In March 2010, demarcation activities resulted in violent conflict in a community adjacent to the case under study. A group of five managerial staff and 43 guards and day labourers from the Enterprise accompanied by six members of the Ethiopian military arrived at a site to prepare already cleared areas for tree planting. An estimated 2,000 members of the local Kebele descended upon the Enterprise employees with sticks, rocks and traditional spears, leaving the military untouched. One man was hospitalized and many sustained broken bones, cuts and other injuries. Planting activities were halted and a series of community meetings followed.

The community, Enterprise and government authorities are still negotiating a resolution to the conflict. Community grazing land located in a different part of the Kebele was identified by the government as a relocation site for households with no other landholdings. Eight months later, in December 2010, most of the households had returned to the forest plots because of superior

soil conditions for cropping. The decision to divide community grazing land to provide homestead plots to forest encroachers was made by the government and had complex economic and social implications for local communities. When asked about this process, an elder responded:

Why do you ask this question? We do not agree. The government is powerful. We are afraid. We have attended many meetings and separated without resolution. Our alternative is to educate our children for government work. (Elder, pers. comm. 20 April 2010, village)

Access claims described previously in the case emphasize negotiation between actors, but local people have little recourse when higher level authorities are determined to enforce restrictions. Peasant-state relations have been described as characterized by "political marginalisation, heavy state intervention and highly extractive relations between state and peasants" (Milas and Latif 2000:363). An argument repeatedly voiced against resettlement on community grazing land asserted that the land was slated to be the future site of a mosque and school, representing an appeal to officials' higher religious and familial values, though this was not successful. The focus of violence on Enterprise employees while community members assiduously avoided harming military personnel exposes the limits of dissent. In effect, households were saying to Enterprise workers, who are for the most part neighbours living under shared circumstances, "how can you deny us our basic subsistence rights?" Aside from other challenges that would have likely ensued had people attacked soldiers, their moral claims would not have resonated with the same force. These limits to protest may be even more strongly felt as foreign investors enter contested spaces. Given the preferential protections afforded foreign investors described in section 2.1, local claims to forest resources may be further marginalised as economic interests come to supersede historically negotiated valuebased claims.

Peluso and Ribot (2003) point out that 'States often manage people as subjects to whom privileges, rather than rights, are to be delegated' (p. 163). Household-level forest benefit claims are rooted in customary and historical access to forest resources and local rights are woven into understandings of what constitutes legitimate use. These are increasingly threatened with the emergence of new revenue-generating opportunities in forest areas. Informal forest benefit distributions are not guaranteed since rights were never formally devolved, leaving local people disadvantaged as they attempt to assert their access claims.

6 Conclusion

Evidence from the case reveals two broad areas of concern regarding increased foreign investment in forests. The first area pertains to the widespread clearing of forests for agriculture that is not subject to appropriate scrutiny. The impacts of this trend are significant in terms of effects on local livelihoods, forests, and potential future engagement in forest-based activities. The second area relates to the diminishing ability of local people to make livelihood claims in the face of new tenures that draw their legitimacy from markets rather than local values. The scope of the impact of foreign investment in forestry is currently small. However, when broadened to incorporate impacts of agricultural investments and potential future investments in forest-based emissions reduction programs like the Clean Development Mechanism (CDM) and Reducing Emissions from Deforestation and Forest Degradation (REDD), potential effects on household livelihoods are tremendous. The "foreignisation of space" (Zoomers 2010:433) holds few certain benefits for rural people. Narratives of underexploitation and overexploitation that have legitimized domestic and foreign interventions into rural livelihoods have veiled contradictory policies and facilitated forest benefit transfers to the state and outside elites.

Foreign investment in highland forests will affect rural livelihoods, due to the interconnected nature of forest and agricultural incomes at the forest-farm interface. As noted in studies on the devolution of forest management from the state to rural people, calls for democratic institution-building can be problematic in the context of institutional climates that do not hold 'inclusion and equity as goals' (Becker 2001:506). Competition between elite actors over resources stifles cooperation and the development of transparent policies governing land tenure and investment (Gatzweiler 2007). These realities mean that institutions capable of and interested in protecting rural livelihoods and access claims will likely not materialize without significant pressure from individuals and organizations with power to leverage change. The socio-political nature of access claims and enforcement highlights the need for a formal process to establish livelihood claims and articulate workable tenure arrangements at the community level. This process should also institute more transparent application, approval and monitoring protocols for all land investments that affect forests. As resources become more limited and as new markets evolve to generate revenues from them, rural livelihood claims tend to be weighed in the context emerging value systems rather that the ones in which claims evolved. Equity considerations mandate that the narratives and histories that have shaped access claims are documented so that rural people and advocates can make comprehensive resource rights claims.

References

Aalbaek, A. and T. Kide (1993). Seed Zones: Ethiopia and Eritrea. <u>Native Tree Project</u>. Addis Ababa, Ethiopian Mapping Authority: Ashoka in the Southeast Upper wet broad-leaved Afro-montane Rainforest.

- Ali, D. A., S. Dercon, et al. (2011). "Property rights in a very poor country: tenure insecurity and investment in Ethiopia." <u>Agricultural Economics</u> **42**(1): 75-86.
- Babulo, B., B. Muys, et al. (2008). "Household livelihood strategies and forest dependence in the highlands of Tigray, Northern Ethiopia." <u>Agricultural Systems</u> **98**(2): 147-155.
- Becker, L. C. (2001). "Seeing Green in Mali's Woods: Colonial legacy, forest use and local control." Annals of the Association of American Geographers **91**(3): 504-526.
- Bekele-Tesemma, A. (2007). <u>Economic Significance of Industrial-Forest Cum Forest-Industry</u>

 <u>Development Focus: Important Poverty Alleviation Opportunity Being Squandered In</u>

 <u>Ethiopia</u>. Economic and Institutional Aspect of Forestry in Ethiopia Debub University,

 Wondo Genet College of Forestry.
- Benin, S., M. Ahmed, et al. (2005). "Development of land rental markets and agricultural productivity growth: The case of northern Ethiopia." <u>Journal of African Economies</u> **14**(1): 21-54.
- Bliss, J. and E. Kelly (2008). "Comparative Advantages of Small-Scale Forestry Among Emerging Forest Tenures." <u>Small-scale Forestry</u> **7**: 95-104.
- Bongers, F. and T. Tennigkeit, Eds. (2010). <u>Degraded Forests in Eastern Africa: Management and Restoration</u>. Washington, D.C., Earthscan.
- Cheng, S., Y. Hiwatashi, et al. (1989). "Deforestation and degradation of natural resources in Ethiopia: Forest management implications from a case study in the Belete-Gera Forest." Journal of Forest Research **3**(4): 199-204.
- Cotula, L., S. Vermeulen, et al. (2009). Land grab or development opportunity? Agricultural investment and international land deals in Africa. London, FAO, IIED and IFAD.
- Crewett, W. and B. Korf (2008). "Ethiopia: Reforming Land Tenure." Review of African Political Economy **116**(203-220).
- Daniel, S. and A. Mittal (2010). (Mis)Investment in Agriculture: The Role of the International Finance Corporation in the Global Land Grab. Oakland, CA, The Oakland Institute: 1-54.
- Deininger, K. and S. Q. Jin (2006). "Tenure security and land-related investment: Evidence from Ethiopia." European Economic Review **50**(5): 1245-1277.
- Deininger, K., D. Byerlee, et al. (2011). Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Benefits? <u>Agriculture and Rural Development</u>. Washington, DC, The World Bank: 1-264.
- Didha, D. A. (2008). Silvicultural Analysis of Natural Forest as a Basis for Silvicultural Planning in Munessa at Arsi Forest Enterprise Oromiya, Ethiopia. <u>Unpublished Thesis</u>. Hawassa, Hawassa University Wondo Genet College of Forestry and Natural Resources: 1-90.
- FDRE (1998). National Action Programme to Combat Desertification, Ethiopia. E. P. Authority. Addis Ababa: 1-158.
- FDRE (2007). Forest Development, Conservation and Utilization Proclamation. <u>Forest Proclamation No. 542/2007</u> President Girma Woldegiorgis, Federal Democratic Republic of Ethiopia. Addis Ababa.
- Fisher, R. and P. Hirsch (2008). "Poverty and Agrarian-Forest Interactions in Thailand." Geographical Research **46**(1): 74-84.
- Gatzweiler, F. W. (2007). Deforestation of Ethiopia's Afromontane rainforests: Reasons for concern. <u>ZEF Policy Brief No. 7</u>. Bonn, Germany, Center for Development Research, University of Bonn: 1-8.

- Guillozet, K. and J. Bliss (2010). A Political Ecology Approach to Understanding Competing Resource Claims in the Ethiopian Highlands. <u>IUFRO Small Scale Forestry in a Changing World: Opportunities and Challenges and the Role of Extension and Technology Transfer Bled, Slovenia: 237-247.</u>
- Haile, G. and H. Assefa (2006). Determinants of Foreign Direct Investment in Ethiopia: a timeseries analysis. 4th International Conference on the Ethiopian Economy. Addis Ababa: 1-27.
- Hammond, L. (2008). "Strategies of Invisibilization: How Ethiopia's resettlement programme hides the poorest of the poor "Journal of Refugee Studies **21**(4): 517-536.
- Hazell, P., C. Poulton, et al. (2010). "The Future of Small Farms: Trajectories and Policy Priorities." World Development **38**(10): 1349-1361.
- HRW (2010). Development without Freedom: How aid underwrites repression in Ethiopia. New York, NY, Human Rights Watch: 1-111.
- Kebede, B. (2002). "Land tenure and common pool resources in rural Ethiopia: A study based on fifteen sites." <u>African Development Review-Revue Africaine De Developement</u> **14**(1): 113-149.
- Kidan, T. (2010). Should we care about neoliberalism? Ethiopian Reporter. Addis Ababa.
- Laderchi, C. R. (2005). Participatory Methods in the Analysis of Poverty. <u>Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook</u>. J. Gonsalves, T. Becker, A. Braunet al. Ottawa, International Development Research Council. **Volume 1: Understanding Participatory Research and Development**.
- Leisher, C., M. Sanjayan, et al. (2010). Does Conserving Biodiversity Work to Reduce Poverty? A State of Knowledge Review. London, The Nature Conservancy, Cambridge University, IIED.
- Lemenih, M., S. Feleke, et al. (2007). "Constraints to smallholders production of frankincense in Metema district, North-western Ethiopia." <u>Journal of Arid Environments</u> **71**(4): 393-403.
- Lunstrum, E. (2009). "Terror, Territory, and Deterritorialization: Landscapes of Terror and the Unmaking of State Power in the Mozambican Civil War." <u>Annals of the Association of American Geographers</u> **99**(5): 884 892.
- Mamo, G., E. Sjaastad, et al. (2007). "Economic dependence on forest resources: A case from Dendi district, Ethiopia." <u>Forest Policy and Economics</u> **9**(8): 916-927.
- Markakis, J. (1987). National and Class Conflict in the Horn of Africa. Cambridge.
- Melesea, A. T. and A. H. J. B. Helmsing (2010). "Endogenisation or enclave formation? The development of the Ethiopian cut flower industry." <u>The Journal of Modern African Studies</u> **8**: 35-66.
- Milas, S. and J. A. Latif (2000). "The Political Economy of Complex Emergency and Recovery in Northern Ethiopia." <u>Disasters</u> **24**(4): 363.
- MoA (1990). Munessa Shashemene State Forest Project Management Plan. F. M. P. D. /SFCDD/NRCDMD/MoA. Addis Ababa, Forest Management Planning Division.
- Peluso, N. L. and J. C. Ribot (2003). "A Theory of Access." Rural Sociology 68(2): 153-181.
- Peters, P. (2009). "Challenges in Land Tenure and Land Reform in Africa: Anthropological Contributions." <u>World Development</u> **37**(8): 1317-1325.
- Poulsen, G. (1973). CADU Forestry Activities. Asela, Ethiopia, Chilalo Agricultural Development Unit: 1-144.

- Reusing, M. (1998). Monitoring of Natural High Forests in Ethiopia. GTZ. Addis Ababa.
- Reusing, M. (2000). Change Detection of Natural High Forests in Ethiopia Using Remote Sensing and GIS Techniques. <u>International Archives of Photogrammetry and Remote Sensing.</u> <u>Vol. XXXIII, Part B7</u>. Amsterdam: 1253-1258.
- Rice, A. (2009). Is There Such a Thing as Agro-Imperialism? <u>New York Times Magazine</u>. New York.
- Rudel, T. K. (2007). "Changing agents of deforestation: From state-initiated to enterprise driven processes, 1970–2000." Land Use Policy **24**: 35-41.
- Sato, J. (2000). "People in Between: Conversion and Conservation of Forest Lands in Thailand." <u>Development & Change</u> **31**(1): 155.
- Scott, J. C. (1998). <u>Seeing Like a State: How certain schemes to improve the human condition</u> <u>have failed</u>. New Haven, Yale University Press.
- Scott, J. C. (2009). <u>The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia</u>. New Haven, Yale University Press.
- Shank, R. (1994). Returnee Agricultural Crop and Land Assessment: a report based on the field trip conducted in early October to Metema and Humera returnee settlements in Regions 1 (Tigray) and 3 (Amhara). Addis Ababa, United Nations Emergencies Unit for Ethiopia: 1-14.
- TAM Agribusiness (2004). Forest Rehabilitation and Natural Coffee Production Enhancement and Trade. Addis Ababa, FARM Africa and SOS Sahel International/ UK Participatory Forest Management Programme (PFMP): 1-14.
- Teshome, E., A. Kinahan, et al. (2010). Land Cover Change Study of the Bale Mountain National Park Robe, Ethiopia, Frankfurt Zoological Society and Bale Mountain National Park: 1-12.
- UNCTAD (2000). An Investment Guide to Ethiopia: Opportunities and conditions. New York and Geneva, United Nations Conference on Trade and Development, The International Chamber of Commerce and Price Waterhouse Cooper: 1-72.
- USAID (2008). Livelihood Profile: Oromiya Region, Ethiopia Arsi, Bale Wheat and Barley (ABW) Livelihood Zone. Addis Ababa, Famine Early Warning System (FEWS).
- Vermeulen, S. and L. Cotula (2010). "Over the heads of local people: consultation, consent, and recompense in large-scale land deals for biofuels projects in Africa." <u>Journal of Peasant Studies</u> **37**(4): 899-916.
- World Bank (2010). Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Impacts? Washington, DC: 1-164.
- Yemiru, T., A. Roos, et al. (2010). "Forest incomes and poverty alleviation under participatory forest management in the Bale Highlands, Southern Ethiopia." <u>International Forestry Review</u> **12**(1): 66-77.
- Zoomers, A. (2010). "Globalisation and the foreignisation of space: seven processes driving the current global land grab." <u>Journal of Peasant Studies</u> **37**(2): 429-447.