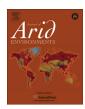
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# Pastoral livelihoods under pressure: Ecological, political and socioeconomic transitions in Afar (Ethiopia)



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#### ABSTRACT

The Afar pastoralists that reside in arid and semi-arid regions of Ethiopia have fallen under increasing pressure as rangelands and natural resources are affected by recurrent droughts, overgrazing, erosion processes, alien plant invasion and governmental land policies. This paper investigates the impact of these environmental, institutional and cultural changes on natural resource management strategies, using empirical research undertaken in four villages of western Afar (Ethiopia) to assess the related challenges to local livelihoods. Qualitative interviews with various stakeholders reveal that the authority and use of traditional common property regimes have been considerably diminished and traditional livelihood practices threatened. Many pastoralists have adopted agriculture in a move away from pure pastoralism to agro-pastoralism, a transition exaggerated by changing property rights and the Federal Government's sedentarisation program, which is presented as a means of reducing poverty. On-going land privatisation and an increased government presence in the region weaken indigenous institutions and cultural practices, with no clear local understanding of the impact on future generations and Afar identity.

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#### 1. Introduction

The arid and semi-arid regions that cover close to one third of land worldwide are challenging living spaces that offer limited resources and require elaborate adaptation measures. Over centuries people residing within such harsh environments have developed appropriate livelihood management strategies (Berhanu et al., 2007; Mwangi and Dohrn, 2008; Nassef et al., 2009; Tsegaye et al., 2013). However, as a consequence of recent processes such as climate change, population growth, environmental deterioration, modernisation efforts, and growing state influence, these livelihoods have fallen increasingly under pressure (Meier et al., 2007; Kassahun et al., 2008; Okello et al., 2009; Sulieman and Elagib, 2012).

Worldwide, sparsely populated semi-arid regions are gaining more attention than in the past, when state policies were often characterised by ignorance towards such peripheries (Nassef et al., 2009; Whitfield and Reed, 2012). This increased awareness is connected to an enhanced ability of governments to implement

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widespread changes in infrastructure, education, and political control, as well as growing interest in the emerging risks and potentials of these environments.

The effects of climate change processes such as rising maximum temperatures and increasingly irregular rainfall are particularly pronounced in semi-arid areas (Ayantundea et al., 2011; Sietz et al., 2011). Exacerbated by population growth and environmental degradation, natural resources essential for rural livelihoods have become scarcer, resulting in a deterioration in living conditions (Sietz et al., 2011; Headey et al., 2014) and a potential increase in conflict (Raleigh and Kniveton, 2012). Areas seen as unused or only marginally utilised — at least in the eyes of external actors such as national governments — have become attractive for politicians and investors, leading to large-scale investments and restructuring projects that combine physical measures on the ground with political and institutional changes (MFEDEPPD, 2003; Galaty, 2013; Easdale and Domptail, 2014).

In recent years, the formalisation of property rights has allowed for large-scale land acquisitions — often termed as land grabbing — in sub-Saharan Africa (Borras et al., 2011; Cotula, 2012; Lavers, 2012a; Smalley and Corbera, 2012; Woodhouse, 2012; Peters, 2013). Investment in land, promising new infrastructure and employment, is attractive for governments of financially poor, but

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land-rich countries (ANRS, 2008; Alden Wily, 2011; Galaty, 2013). Land privatisation, i.e. transferring ownership rights, encourages interest in agriculture by stimulating a move from semi-nomadic pure pastoralist livelihoods to agro-pastoralism, a combination of arable farming and animal husbandry (Sonneveld et al., 2010). Land privatisation is also justified as a means of enhancing agricultural productivity "based on the assumption that land titling will lead farmers and herders to make greater investments in their production systems" (Bassett, 2009, 756).

The trend towards formalisation of property rights poses serious, sometimes existential, threats to local inhabitants. As traditional land use is usually based on customary law without formally secured property rights, indigenous land titles are often viewed as tenuous and local utilisation practices ignored (Alden Wily, 2011, 2012). Governmental influence through the establishment of infrastructures, irrigation schemes or reserve zones means a *de jure* change in property rights and a *de facto* expropriation from the people who formerly used these lands. However, while there are undoubtedly vast areas in sub-Saharan Africa that seem only marginally used and where productivities could be enhanced, they are almost never completely idle and remain significant for local livelihoods (Bassett, 2009; Odote, 2013). In particular, pastoralists in (semi)-arid regions with sparse vegetation cover require large ranges for animal husbandry (Onono et al., 2013).

Natural resources such as rangelands are often classified as common pool resources and are used and managed by local communities through common property regimes. Management and utilisation of these relatively low-productivity resources normally necessitates extra labour input, joint efforts, and regulations. Other attributes of common property regimes include the costly exclusion or problematic control of user access and subtractability, by which each user is capable of subtracting from the welfare of other users (Berkes, 1989; Ostrom et al., 2002). However, in contrast to Garrett Hardin's famous Tragedy of the Commons (Hardin, 1968), which states that utilisation of natural resources by groups inevitably leads to overuse and degradation, Elinor Ostrom (1990, 2009; Ostrom et al., 2002) and many other scholars (Berkes, 1989; Hanna et al., 1996; Agrawal, 2001, 2014; Araral, 2014) show that in certain circumstances management of natural resources by groups or communities is superior to both individual ownership and state ownership. Worldwide, numerous local institutions use common property regimes to successfully and sustainably regulate land and natural resources, regimes essential to the livelihoods of millions of people.

In semi-arid areas of Africa, pasture is traditionally managed through common property regimes that are highly adapted to difficult environmental conditions. The mobility of pastoralists and their herds as well as the flexibility of their common property regimes are rational strategies to withstand droughts, in spite of the variable nature of semi-arid rangelands (Behnke et al., 1993). Institutions regulating access and utilisation of grazing lands are usually flexible and retained through complex social networks and negotiations (Cousins, 2007).

Ostrom (1990) emphasised that trust, reciprocity, and communication are required for successful common property regimes and identified eight design principles for successful common property regimes: clear boundaries, congruent rules, collective choice arrangement, monitoring, graduated sanctions, conflict resolution, organisation rights, and nested units. Without going deeper into the discussion and critiques of the design principles (Agrawal, 2001; Quinn et al., 2007; Cox et al., 2010) Ostrom's principles not only help to identify threats to existing common property regimes undergoing current transformation processes but they may also be used to address problems associated with designing fair and sustainable resource management institutions. On the basis of

investigations in Tanzania, Quinn et al. (2007) stress the importance and need for flexibility in areas characterised by ecological uncertainty and state the usefulness of the design principles as a framework but warn against using them as a blueprint.

Despite being flexible, pastoral commons, described by Agrawal (2014) as "coupled natural and human systems", and their property regimes have fallen increasingly under pressure due to the aforementioned convergence of external influences (e.g., climate change, state interventions, profit-oriented measures by private actors) and internal developments (e.g., population growth, environmental degradation, conflicts). Bennett el al. (2010) see the inability to define and enforce user rights, inadequate local institutions, diffuse user groups, and ethnic and political divisions as barriers to common rangeland management in South Africa, where the transformation from traditional to new management practices has led to greater economic disparities (Lebert and Rohde, 2007), Mwangi (2007) uses the example of the Maasai in Kenya to show how land privatisation can destabilise land holdings and promote inequality, while Bassett (2009) outlines how new land law leading to modified access and control of lands for pastoralists threatens livestock raising systems in Côte d'Ivoire.

The lowlands of eastern Ethiopia epitomise these transitions as environmental changes and government modernisation efforts challenge pastoralists' traditional livelihood practices (Abule et al., 2005; Davies and Bennett, 2007; Riché et al., 2009; Tsegaye et al., 2010a, b; 2013). Using the example of the Afar<sup>1</sup> people from one of Ethiopia's four pastoral regions, this paper assesses current transitional processes in (1) Natural Resource Management, (2) Property Rights, and (3) Livelihoods by asking the following questions: What are the current transitions of natural resource management in Afar, both as adaptation strategies to environmental and socioeconomic changes and as consequences of political initiatives? How do institutional changes like transforming property rights and the government sedentarisation scheme alter traditional authorities, autochthonous common property regimes, and local communities? The results show how challenges to and the impact of current socio-economic conditions are perceived by the Afar, and how they are managed by the various institutions. The discussion outlines the connotations of pastoralist and agro-pastoralist livelihood types and their effect on Afar culture. The conclusions describe the steps that should be considered when redesigning natural resource management systems in Afar.

#### 2. Research methodology

This study refers to the Afar National Regional State (96,707 km²) of the Federal Democratic Republic of Ethiopia. Research was conducted in four *kebeles* (villages) of Ewa and Awra Woreda (district) within Zone Four (Fig. 1). According to the latest official numbers (ANRS, 2011a, b), around 47,000 inhabitants live in Ewa (127,700 ha) with a population density of 37 persons per square kilometre, while Awra (309,600 ha) is less populated with around 36,000 inhabitants or 12 persons per square kilometre. *Kebeles* were selected with the cooperation of government and NGO officials working in the region to ensure that those with different subsistence bases were studied, i.e. they had been classified by the government as either "agro-pastoralist" or "pastoralist". For each *kebele* we documented the availability of natural resources, the presence of indigenous knowledge and local

<sup>&</sup>lt;sup>1</sup> Afar stands for the region that extends into Eritrea and Djibouti, an ethnic group, and a language that belongs to the Cushitic branch of the Hamito-Semitic language family.

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