

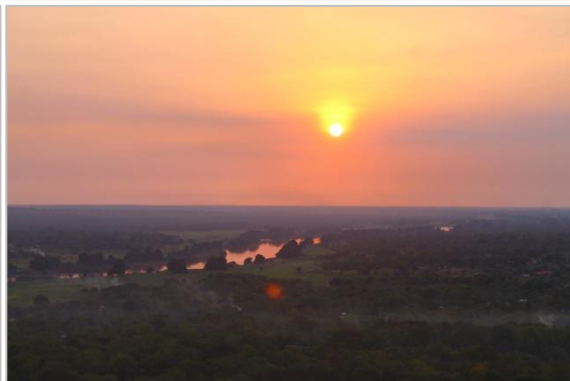


**LUND**  
UNIVERSITY

Master of Science in  
International Development and Management  
August 2014

# Rush for the ‘blue gold’

**The governance of agricultural investments influencing the socio-ecological system of  
the Gambella region, Ethiopia**



Source: the Author

Author: Kata Molnar  
Supervisor: Tobias Axelsson

## Abstract

This paper presents a case study from the Gambella region of Ethiopia, where large-scale land concessions shape the resource system and necessitate adoption of new institutions. Private investors are free from water charges, and have the right to take over already built irrigation structures such as dams or main canals. The Alwero river in Gambella, located in the Baro-Akobo river basin, is one of the key sources of water for indigenous rural communities who practice fishing, pastoralism and shifting cultivation agriculture. New water users are increasing in number, one of them being Saudi Star Agricultural Development Plc., who is currently developing a rice plantation on 10,000 hectare along the river. There are no environmental controls or limits established on the company's water use. Neither are there any mechanisms for monitoring the effects of increasing water use on users, the Duma wetland, and the wildlife. The adoption of a comprehensive land use and river basin plan would be important to avoid the escalation of resource conflicts and for the future development of the region. The analysis looked into how the governance of water and land resource allocation for agricultural investment challenges and influences the complex social and ecological system in Gambella.

Key words: Land deals; Resource-based conflicts; Water governance; SES Framework; Ethiopia; Gambella region

Word count: 14901

## Acknowledgements

I gratefully acknowledge the following people and institutions, whose support made this thesis possible:

Those respondents who participated during the research. For sharing your time and stories, thank you.

HoAREC&N team in Gambella. Habte, Amare and Sanne and the rest of the team. For showing those sides of Gambella I could have not seen alone. For integrating me, and trusting my good intentions, thank you.

Joseph Desalegn, the best anthropologist and local guide, for your enthusiasm, thank you.

My Supervision team, with the leadership of Dr. Tobias Axelsson, Josefin and Laura, for their indispensable support and encouragement, patience and valuable comments throughout. Tack!

The Nordic Africa Institute for the Travel Scholarship that made my half year in Ethiopia possible.

The International Water Management Institute for hosting me and teaching me lifelong lessons during the internship period. Personally Dr. Simon Langan, Dr. Kai Wegerich, Philippe Lempérière, Fitsum Hagos, and Teklu Erkossa, who supported me from the East Africa and the Nile Basin office of IWMI. Amesegehallo!

Ana Cascão, for believing in me and showing me the essence of a researcher. Obrigado!

My family Edit, Zsófi, Imre, and friends, Jakub, Yukari, Andi, Mira, Dia, TKata, and Dora, for being there for me. I am ever indebted to your friendship, kindness and love.

Lastly, some influential people I had to say farewell for, your footprint is on this work too.

## List of Acronyms

<b>AAU</b>	Addis Ababa University
<b>AILAA</b>	Agricultural Investment Land Administration Agency
<b>ARRA</b>	Administration for Refugee and Returnee Affairs
<b>ATCB</b>	Agricultural, Tourism and Culture Bureau
<b>AWRA</b>	Alwero Water Resource Administration (AWRA)
<b>BoA</b>	Bureau of Agriculture
<b>BoW</b>	Bureau of Water
<b>EIA</b>	Environmental Impact Assessment
<b>EWCA</b>	Ethiopian Wildlife Conservation Authority
<b>GTP</b>	Growth and Transformation Plan
<b>HoAREC&amp;N</b>	Horn of Africa Regional Environmental Centre and Network
<b>HRW</b>	Human Rights Watch
<b>LIA</b>	Land Investment Agency
<b>LuB</b>	Land Utilization, Administration and Environmental Protection Bureau
<b>MoA</b>	Ministry of Agriculture
<b>MoWIE</b>	Ministry of Water, Irrigation and Energy
<b>NGO</b>	Nongovernmental Organization
<b>OI</b>	Oakland Institute
<b>PE</b>	Political Ecology
<b>PLC</b>	Private Limited Company
<b>RBO</b>	River Basin Organization
<b>SES</b>	Socio-Ecological System
<b>UNHCR</b>	United Nations High Commissioner of Refugees
<b>WFP</b>	World Food Programme
<b>WLRC</b>	Water and Land Resource Center
<b>WUPAD</b>	Water Utilization Permit Administration Directorate

## Amharic/ Ethiopian terms

<b>Anuak</b>	Ethnic group in Gambella region
<b>Baro-Akobo</b>	A tributary sub-basin to the White Nile
<b>Mezhenger</b>	Ethnic group in Gambella region
<b>Nile Letchwe</b>	Endemic mammal species in the Gambella region
<b>Nuer</b>	Ethnic group in Gambella region
<b>Woreda</b>	Administrative Political level, District. There is one smaller level, the Kebele which I have not included in the research

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## 1. Introducing the theme

### 1.1. Research problem

The rush for essential natural resources intensifies as international land investments (commonly known as a land deals<sup>1</sup>) increase, and the production demands of food and biofuel grows (World Bank 2011). While the less-endowed countries in Africa, Latin America, or Asia are the major target for the coveted resources especially after the food price crisis of 2007-2008 (IFPRI 2009), this is an issue in Europe as well (TNI 2013). Securing land deals is lucrative for investor countries since it lowers their dependency on imported food and vulnerability to future food price hikes (Jägerskog et al. 2012), as food costs and water scarcity increase (UNDP 2006). However, the other side of the story - the local reality in the regions and districts where these investments arrive, is largely overlooked. Often, conflicts arise over access to resources, shaping the lives of local communities and their environment (Cascao 2013).

Ethiopia is among those countries where agricultural investment is a major national development strategy (Bossio et al. 2012), outlined in the Growth and Transformation Plan (GTP) for 2010 to 2014 (MoFED 2010) to maintain its economic growth (Access Capital 2011-2012). In the Horn of Africa, Ethiopia has the headwaters of the Nile river, providing the lion's share (around 85%) of the total river flow for downstream countries. Ethiopia is ethnically very diverse, with over 84 ethnic groups<sup>2</sup>, and a continuously growing population, which amounts to 91,7 million people (World Bank 2012). Over 80% of the population resides in rural areas and their livelihoods depend mainly on rain-fed agriculture or pastoralism. Though agriculture is the dominant sector, most of Ethiopia's cultivated land is under subsistence agriculture. Although the number of people dependent on emergency food assistance has decreased and health services have improved, there is still an overwhelming reliance of rural households on food aid or safety net programs (financed by Western donors) (Rahmato 2011).

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<sup>1</sup> I use various other terms in the thesis when referring to this process, such as: land or water acquisition, foreign direct investment into agriculture. By the term land deal, I refer to land or water acquisition- investors getting access or leasing vast tracts of land, which leads to 'transformations in the ground on which states are formed' (Wolford et al. 2013:194). However, I stay away from the term mainly used in more critical discourses: 'land grabbing' since this study has no intention to take stands on the nature of the investments, or imply the simple dichotomy of positive or negative.

<sup>2</sup> Based on the number of languages in the country.

The natural wealth of some of the most marginalized regions of Ethiopia is offered for investments, Gambella being one such example. Recent developments in Gambella have raised many critical voices in the international media, Human Rights advocacy, and academic domains (Vidal 2011; Oakland Institute 2011; Rahmato 2011; HRW 2012; Pearce 2012).

The local culture and traditional lives of indigenous ethnic groups in Gambella look back on a long history of resource-based conflicts (Sewonet 2002). The geopolitical context (the proximity of South-Sudan) indicates the decades-long spillover effects of war (Cascao 2013). Furthermore, the transboundary conservation area with migrating wildlife, located within the White Nile basin (Baro-Akobo sub-basin) makes Gambella a rich socio-ecological system. This is the baseline where investors start their operations, and tension is already growing. This thesis therefore aims to investigate the main factor shaping the interaction between investors and the region: the governance of resource allocation, through a cross-scalar, political ecology lens.

## **1.2. Research Aim**

The interest in farmland raises a series of concerns. Some claim that the control over valuable resources is taken from the communities whose livelihoods depend on them (Deininger 2011; Franco and Kay 2012), while others argue that the population in the host countries relies on food aid due to their domestic food insecurity (Matondi et al. 2011). The impact of land deals on the resource systems, the environment and social-ecological processes is diverse, entailing both risks and opportunities for the development of the target region. Yet the lack of reliable data and rigorous methodology in researching the cross-scale impact of these land deals seem to be one of the biggest challenges.

Water is found to be an important driver for investors (Bues 2011), and an emerging angle to study within the field of land acquisitions. Turning to water governance within the discussion on agricultural land investments, it appears that implications spread beyond political boundaries since farm sites are often located in international river basins. The development of irrigation schemes in countries like Ethiopia in the upstream of the Nile River may have transboundary impacts, requiring international cooperation over water management. The various implications of land deals are thus not merely a local or national issue, but an international concern. Hence, this research aims to contribute to the understanding of the cross-scale governance of water and land resources from local to the national level, while acknowledging the international dimensions as well.



The main purpose of this thesis is to add to the efforts of building a scientific knowledge base on a highly marginalized region. This topic is aimed to be of further value, by contributing to the growing of body research on the widespread phenomena of agricultural investments.

### 1.3. Research Question

The thesis analyzes the allocation of land and water resources in Gambella region part of the Baro-Akobo river basin, to those private companies who invest in agricultural land with a commercial interest. In particular, this paper presents a case study of the Saudi Rice farm, to illustrate the complex chain of resource allocation processes, and highlight some of the apparent challenges that emerge for various stakeholders. Given the cross-scale implications of the governance of natural resources for agricultural land investments outlined above, this study is guided by the following research questions:

*How does the governance system of land and water resource allocation for agricultural investments influence the socio-ecological system in Gambella, Ethiopia?*

The case study illustrating the governance process was selected to operationalize the above question. The question guiding the analysis of the case study is:

- What challenges do Saudi Star operations create for water users in the Alwero river's social and ecological system?

### 1.4. Limitations

The perspective of the people (e.g. farmers, pastoralists, fishermen) whose livelihoods depend on the resources in question could not be included in the data collection process, which poses as limitation. Given time constraints, limited financial resources and forbidding local circumstances, it was impossible to reach out to this stakeholder group. Furthermore, only two female respondents have been included in this study, since the field of investigation (the governance of land deals) appears to be a male-dominated domain. However it ought to be acknowledged that decisions about access to natural resources affect males and females alike. While this gender imbalance could be elaborated as a subject of an individual study, a gender perspective will not be part of the scope of this thesis. Finally, unlike most research on land deals, this study will not be providing an analysis of the impact of land investments on the livelihoods of local communities. Neither does this study aim to analyze the impact of investments on the economy or development of Ethiopia at any scale. There is not a simple, one-way solution for any of the highly complex challenges that are identified in the study.

## 1.5. Disposition

The thesis starts with presenting the methodology. Section three provides background to the guiding concepts of the thesis such as private investments, water resources, land-use change and resource-based conflicts. The fourth section provides essential background on Ethiopia and its Western region, Gambella. Section five is dedicated to the theories, namely political ecology, water governance and the politics of scale. As part of this, the analytical framework of the Socio-Ecological Systems (SES) by Elinor Ostrom (2009) is presented as well. The sixth analysis section is divided into subsections in order to illuminate the answers for the main research question, allowing the case study to unfold. The final section of Concluding remarks leads to the overall discussion of the governance of natural resources and its influential role in shaping realities from the local to the global scales.

## 2. Methodology

In this section I present the methodology I used in the study, including the research design, data collection methods, the quality of the research, analysis of data and reflecting on my own positionality as a researcher. My qualitative study takes on a case study approach, relying on field visits and stakeholder interviews. I conducted over 40 interviews in Gambella, Addis Ababa and Abobo Woreda (meaning the District level). The focus of these interviews was the mandate and activities of institutions involved in the process of land and water allocation; the current status and business plan of investors; and the perspective of some of the local organizations working with humanitarian aid, nature and wildlife conservation. Over the course of the fieldwork I visited 3 farm sites, one dam site and a canal under construction in Gambella. The Horn of Africa Regional Environmental Centre and Network<sup>3</sup> (HoAREC&N) hosted me in their Gambella field office and got involved in my research early on.

### 2.1. Research design

This study employs qualitative methods, with an explorative, single-case study that has a participatory action research approach. The objective of the case study (Saudi Star farm and its broader context in the institutional process of resource allocation) is suitable for presenting a multifaceted issue (Bryman 2008:52) and is also an appropriate design to demonstrate the complexity around land investments. The research has an integrative approach in order to

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<sup>3</sup> The Horn of Africa Regional Environment Centre & Network (HoAREC&N) focuses on environmental concerns and sustainable development options within the Horn of Africa. It facilitates, strengthens and advocates for initiatives related to environmental conservation and natural resource management. The Network, hosted by the Centre, promotes more than 40 higher learning institutions and research centers, endogenous civil society and community based organizations in Djibouti, Ethiopia, Kenya, Somalia, South Sudan and Sudan.

create possibilities for involvement of stakeholders with different interests. The aim of the field work in Gambella is not only to get data from selected respondents, but also to exchange and integrate knowledge among these groups to foster a positive future development.

## **2.2. Data collection**

Methods for data collection include: semi-structured interviews, direct observation, and analysis of textual data. Other instruments for analysis were maps and pictures. I used both primary and secondary data in the analysis.

### **2.2.1. Sampling**

The selection of respondents aimed to be an inclusive process in which not only decision-makers in governmental positions, but also investors, Nongovernmental Organization (NGO) members and researchers participate, thus incorporating diverse stakeholder views. The data collection started in Addis Ababa, where I visited the departments of Ministries, Head offices of investment companies, NGOs who have local branch offices in Gambella through a purposeful sampling. These entities were selected after careful review of Ethiopian land and water governance. In approaching the government, I applied a more purposive sampling procedure (Mikkelsen 2005:193) to know which entities are responsible and what are their mandate in the investment process in Addis Ababa. Thus, from the government's side I knew which institutions are involved. When I approached the Gambella Regional Bureaus and in particular the Abobo Woreda (District level) Bureaus, purposeful sampling was not possible as I was directed immediately to the Director or the Head of the given Department.

### **2.2.2. Primary sources**

#### **Interviews**

The role of interviews in this study was to gain the perceptions of respondents on the institutional issues, thus these information have an important role in the analysis. I have conducted 49 semi-structured interviews, out of which 38 were used in the analysis. The length of the interviews varied from 15 minutes up to 2 hours, each in different locations: Addis Ababa, and the Gambella region (a detailed list of respondents can be found in Appendix 1). Respondents included Federal (marked FGx<sup>4</sup>), Regional (RGx), Woreda (WGx) (District) level officials, mainly in leadership/decision making positions, Researchers (Rx), NGO workers (NGOx), Project managers at Investment and State Farms (Ix). In Addis Ababa, the institutional support of the International Water Management Institute was instrumental in accessing key decision makers at both the Agricultural and Water Ministries.

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<sup>4</sup> 'x' refers to numbers such as FG1, FG2, FG3 and so on.

With the help of HOAREC&N, the support letter from the President of Gambella was an essential step for further interviews with key respondents around the region. Observations from site visits complement the views of the respondents.

### **2.2.3. Secondary sources**

This thesis further relies on secondary sources such as documents, including legislative papers (policies, proclamations related to federal or regional governance or establishment of an institution), research papers, proceedings, maps, and datasets.

### **2.2.4. Challenges of data collection**

Many challenges occurred during the data collection process. The nature of Ethiopian bureaucracy I encountered had slowed down the research and in some cases hindered me to get access to information. In Gambella, the officials' high turnover in decision making positions was a challenge, because in most cases the person with sufficient information was not reachable. Language created a barrier between me and my respondents in just limited occasions, in case of which I used translators. Having a local partner was necessary due to the sensitivity of the issue I was researching, as well as the lack of local transportation and infrastructure. Trust building was a long process, but eventually I understood why no NGOs in Gambella wanted to ruin the invaluable relationships they built up with the government, and as I got affiliated to them I had to steer my study into having an approach which would not cause harm for anyone under any circumstances. Finally, the security became also an issue in Gambella during my time there, because a civil war broke out on 15 December, 2013, in the neighboring South Sudan.

## **2.3. Positionality**

The currently ongoing development processes are known to be highly contested by several national and international human rights groups and other lobby groups due to its forced character, lack of consultation, and connection to the land investments in a way to create space for commercial agriculture. I attempted to assess my assumptions, methods, and interpretation of the findings, so each stage of the research required a high degree of self-reflection. I was aware of my outsider position, coming from Europe or the West. In Gambella, I felt that my affiliation to HoAREC&N and the fact that I am a female student was more determinant throughout the data collection process than my citizenship or origin. Continuous discussions with my respondents and gatekeepers confirmed that most probably all my attributions supported the data collection. However, the interpretation of the collected information still had to be taken critically. While processing the data, I tried to stay open to

rival ideas compared to my own, in order to prevent myself from seeing things only according to the ideas I held previously as Mukherjee and Wuyts (2007:235) suggest.

#### 2.4. Quality of the research

Instead of focusing on criteria that deals with quality in relation to respondents or findings (Bryman 2008:30), a synthesis of contemporary viewpoints should be taken in qualitative research. According to Whitemore et al. (2001) the validation standard should assess the interpretative lens, the reflexivity of the researcher and the challenges that occur during the research as suggested. As I discuss credibility and authenticity as research quality criteria, I use validation strategies to document the accuracy of the study. The strategies I use here are: my engagement and observation in the field, triangulation, peer-review and consideration of research bias.

**Credibility** shows if results are an accurate interpretation of what participants meant when they were taking part in the interview. The credibility of my study is assured by engagement with the participants of the study in Gambella: building trust through spending time with them and having long discussions, and constantly checking for misinformation or misinterpretation that may stem from distortions I may have created (Creswell 2013). Clarifying research bias is another strategy to understand the assumptions, positions, and biases of the researcher. I was biased in relation to the Gambella region and to the topic of land investments initially, since I was mainly driven by the negative, critical voices of reports coming out from several academic, media and advocacy groups. If their critical approach, and my condemnatory approach to these investments shape how I interpret what the participants tell me, the credibility of the thesis might have been problematic. But as the data collection moved ahead, I took off both lenses through self-reflection, leaving my biases, prejudices and orientations behind. However, it does not mean that I was not critical towards what I have encountered on the ground. The **authenticity** of the research refers to how different voices been heard and how views were balanced (Whitemore et al. 2001), which I assured through the triangulation strategy. It simply means that multiple sources and methods are applied to construct evidence.

#### 2.5. Analysis of data

I made remarks, and two field reports to my supporting organizations which included personal thoughts and observations I made during the field work. These insights complement the other primary data, the interviews. The selected interviews which were deemed relevant for the

thesis were imported to a Qualitative Data Analysis Program named ATLAS.ti<sup>5</sup>. I categorized the interviews into Respondent Groups (RG): Government (Federal, Regional, Woreda), Investors, Researchers, Locals, and NGOs. Interview guides can be found in Appendix 2. First, I coded the transcriptions within each RG. These were simply describing what my respondents said in a few words. After this, I created a network map of codes for each group, and compared the results across the groups. I found common themes emerging from all of the RGs: Governance, Investors, Water use, Impact, Challenges, Problem/Conflict, Gambella (and its resources), Perceptions. Eventually, it helped me to match my materials with the theoretical framework and make it easier to represent different views.

### **3. Background to natural resource use**

I argue in this thesis that the governance of land and water allocation for agricultural investments shape the region where it enters. In order to understand the process and its influences on the social and ecological system, this section provides an overview of private land investments, the complex nature of water resource, and natural resource-based conflicts.

#### **3.1. Private investments into the agricultural sector**

Increasing population, expanding urbanization, climate change and food security priorities are the major reasons for the exponential increase in commercial land transactions, often coupled with dispossession of rural communities (Fairbairn 2013). Several papers on the subject have been published in the past years (Borras et al. 2011; Fairhead et al. 2012; White et al. 2012). Some argue that the deals happen in fragile, disorganized or ungovernable states (Deininger et al. 2011) where the rule of law ‘appears not to cover the full extent of their territories’, with weak land tenure system, markets or safety nets (Wolford et al. 2013:191) like Cambodia, Vietnam, Ethiopia, or Madagascar. Therefore, the overall governance system of a country is considered as a factor when assessing land deals. Hall (2011) emphasizes that we ought to be cautious looking at commercial land deals as they vary a lot in their legality, structure, and outcomes. This is one of the reasons why I do not look at the land deals *per se*, but the governing framework behind them, which reveals what is behind the political curtain of a country.

Those involved in the transactions are not solely the investors, but also the domestic elites and governments who become partners, intermediaries, and in many cases the beneficiaries.

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<sup>5</sup> I used the Demo Version, WIN 7.1., which had certain limitations in number of documents (10), codes (50), memos (30) and network views (10). I managed to include all my materials needed under these circumstances.

Moreover, Wolford et al. (2013:192) argues that states are active, calculating agents of land deals, aiming to maximize returns to marginal lands or marginal communities. While it is not exclusively marginal areas that are identified for land deals, the notion of ‘underutilized, idle land’ in Sub-Saharan Africa is often used to motivate why areas cannot be developed without investment (Chatty and Colchester 2002). Instead of strengthening land and water rights of local farmers, ‘vacant’ land is given away for large-scale plantations. The problem with this notion of underutilized land is that it ‘tends to reflect an assessment of the productivity rather than existence of resource use’, hence it is ‘often applied not to unoccupied lands, but to lands used in ways that are not perceived as “productive” by the government’ (Cotula et al. 2009:62). These notions manipulate contexts where the rights of the local farmers are unclear and land administration is weak (De Schutter 2011).

The claims governments make about land and water use leases are often justified under the guise of sustainable development (On our land 2013). They argue that commercial projects will a) help generate employment opportunities for local communities b) boost agricultural productivity, c) contribute to the construction of new infrastructure, d) benefit communities via social assets such as health care posts, schools, clean water access, etc. e) create opportunities for technology transfer, and f) increase the country’s foreign earnings through producing export crops (Rahmato 2011; Franco and Kay 2012). While those factors can support claims about the impacts of land deals *per se*, they are in fact very hard to measure.

In contrast to the governmental claims, anti-‘land grab’ campaigners such as GRAIN (2012), Oakland Institute (2011; 2013) or Oxfam (2012), report about the negative socioeconomic and environmental impacts. Albeit supported by empirical findings from fieldwork, Oya (2013:514) argues that their claims are speculative. To discuss the negative and positive social and environmental impact of land deals, multiple aspects need to be considered. For instance, reliable evidence of the impact of land deals is very limited, because most of the land deals are in the making, or too recent to have an analyzable impact (Cotula et al. 2009) (for a few further concerns, see Table 1.). Beyond the impact of the deals, the process of land allocation has attracted significant criticism for its complexity and opacity. Such deals tend to be negotiated and approved with little public disclosure, and can be cumbersome because multiple national and lower level government offices can be involved in the approval.

*Concerns with agricultural investments where the governance system is involved*

- The majority of allocated ha of land is not under production
- The deals will lack transparency or community dialogue
- They will result in displacement of residents with informal or traditional land rights
- The *de facto* shift of – often informal – land and water rights of customary users to foreign users
- Unregulated access to water
- Socio-economic and environmental impacts of agricultural intensification
- Additional irrigation and hydropower development result in changes in local (e.g. groundwater) and downstream water availability, for example losses of access to drinking water for livestock.
- Pollution, damming, abstractions and hydrological alterations impact aquatic and freshwater ecosystems and their services for humans

(Based on Deininger et al. 2011; Skinner and Cotula 2011; Wolford et al. 2013)

Table 1: Concerns with agricultural investment

*Investment in Water*

Water's popularity as a worldwide commodity, or 'blue gold' is growing fast. It has become a new object of appropriation at the heart of a range of environmental, energy, food, and development concerns (Franco & Kay 2012). UNDP (2006) reported that the 'global water crisis' means 700 million people in 43 countries around the world live below the water-stress threshold of 1,700 cubic meters per person, calling for urgent action to put an end to the global "Enclosure of the commons" (Shiva 1997). In much of the debate and research on land deals, a number of analytical papers have drawn attention to water (Cotula 2006; Bues 2011; Skinner and Cotula 2011; Woodhouse and Ganho 2011). In land deals, water resources tend to land *de facto* in the hands of investors, often with completely unregulated access to it (Skinner and Cotula 2011).

Securing access to water has been cited as one of the underlying reasons for large-scale acquisitions of land by investors such as the Gulf countries, where renewable water resources are acutely limited (Woertz et al. 2008), or by emerging economies such as China and India, where local water scarcity has been increasing (de Fraiture et al. 2008). These countries are transferring much of the pressure on water resources caused by agricultural production to other countries, influencing the lives of local communities living near the investment farms, as well as potentially those living downstream along the water resource. The development of water infrastructure includes dams, rivers diversions, and water boreholes of various scales.



There is however limited knowledge about the social and institutional dynamics unfolding in and around the water infrastructure.

Thus the question is, who are the powerful actors that are able to take control of, or reallocate water resources already used by local communities or feeding aquatic ecosystems to their own benefits? To answer this question, we need to focus on how material, administrative, and political power is mobilized to enable such changes.

### **3.2. Water resources**

Water is a contested, finite and multifaceted resource. Access to water reflects power asymmetries, socioeconomic inequalities, and other distribution factors, such as the ownership of land (Mosse 2003; Mehta 2005). Thus, the first premise is that water is not purely a material resource that is the object of human actions. Water has an acute importance for sustaining human life, with context-specific, multi-layered socio-political conditions by which water rights are allocated, and its access and use are controlled. Water rights give the right-holder authorization to subtract a flow of water from a particular source and to make use of legally or locally established privileges associated with the water right (access and operational rights, such as the use of infrastructure, and/or control rights, such as sharing in management decision-making). Therefore, due to the fluid nature of water, water scarcity and pollution can extend across entire river basins. Furthermore, there are different colored waters: 'blue' and 'green' (Falkenmark 1995), with blue water referring to liquid water in the form of groundwater and surface water, and green water, the one stored in the soil, absorbed and transpired by plants, or evaporating 'unused'.

### **3.3. Natural resource-based conflicts**

Natural resource based conflicts (RBC) continue to be explained in terms of scarcity-based theories – which view conflicts as the outcome of a struggle for scarce resources, often induced by population pressure (Malthusian), leading to a 'war of all against all' (Hobbesian). The causes of conflicts are multiple and in many African countries, the concept of marginalization – both in a material and political sense – might provide a useful point of departure for any analysis of the motivators behind conflict.

Four major factors can be identified as contributing to the incidence of natural resource conflicts in Eastern Africa: political governance system, legal factor of land tenure, economic factors, socio-cultural factors. In this regard, the colonial and neo-colonial evolution of the governance system is particularly relevant. More importantly, the political system determines

and defines the power disparities that are a major source of conflict over natural resources. Those who have political power are able to use it to gain access to natural resources, and to trample upon the rights of those who do not have the power. In many developing countries, political power determines economic opportunities, as the political elite control virtually all aspects of social life. The underlying causes of resource conflict are poverty, political decisions, and the failure of the institutional frameworks for conflict resolution or prevention (Okello et al. 2005:1). RBC should therefore be seen and analyzed within a policy and governance context.

This section discussed the debates surrounding the various forms private agricultural investments. Furthermore, the complex nature of water resources was highlighted in order to provide a basis for a deeper understanding of the complex relationship between water and land deals. Finally, the underlying causes of conflicts that arise in relation to access to natural resources were elaborated on. This provides a broad background to the issues around land-grabbing, instrumental in analyzing and understanding the specific case of Ethiopia.

#### **4. Setting the scene for the case study**

In this section I introduce the Ethiopian context on different scales (national, regional and local) to provide a background understanding of the context in which the processes outlined in the previous section are taking place. First, I provide a short overview of Ethiopia's socio-economy, political setting, and history. Then I zoom into the Gambella region's political history and resource-use. Gambella is a particularly relevant case to study the governance process of resource allocation for agricultural investments to examine how they shape a region with a marginal character and various, contested political and developmental processes.

##### **4.1. Ethiopia**

Historically, Ethiopian agriculture was organized essentially as a feudal land tenure system until the end of the imperial regime of Haile Selassie. Land ownership was a complex combination of communal, church ownership, and private and state holdings, which varied throughout the country. In 1974, the Derg overthrew the regime and established a Marxist military government. The Derg regime carried out radical land reform with the aim of ending the landlordism associated with the imperial system. A system of policies was intended to promote the collectivization of agriculture (Deneke 2013).

The administrative structure established in the Constitution of Ethiopia describes the power distribution and responsibilities among the actors. In the federal parliamentary republic, there are 9 ethnic-based administrative regions and two self-governing administrations - the capital Addis Ababa and Dire Dawa. Each region has its own constitution, flag, executive government, legislature, judiciary system, and police force; it chooses its own working language; and finally, it has the right to self-determination up to secession (*Ibid*). Constitutionally, there are several layers of the government allowing further decentralization: Federal, Regional state, Zonal and Woreda levels (Habtu 2003).

#### 4.2. Gambella and the Baro-Akobo river basin

Gambella is a hot, tropical region located in the marginal, South-Western lowland part of Ethiopia (See Figure 1). As of 2007, the population of Gambella was 306 916 (Census 2007), with around 74% occupying rural areas. The multiethnic population is a mix of ‘highlanders’ and indigenous ‘lowlander’ people: semi-pastoralist Nuer, and the Anuak who mainly live as farmers along the rivers. Limited public services, opportunities and development have kept the area poor and marginalized and is a consequence of the region’s geopolitical location and history (Cascao 2013). Political factors, such as internal conflict among the ethnic groups for control over land and water, external political interference, international aid, forced migrations, asymmetric power relations and fragility of institutions have determined socio-economic development.

Gambella has been targeted as one of the focal regions for agricultural expansion by virtue of its fertile soils, substantial water resources, and sparse population. As land is state-owned, people in Gambella have no formal land tenure or property rights system. This has justified unregulated and random leasing of land by the government without any accountability to local communities (OI 2011).

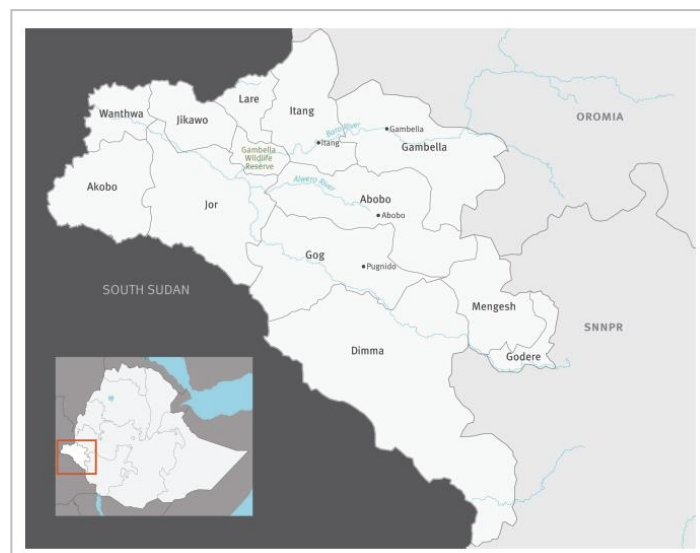


Figure 1: Map of Gambella region

Numerous perennial rivers cross the Gambella landscape, including the Alwero, Akobo, Baro and Gilo Rivers. They all enter into the Baro-Akobo/Sobat river, which is the second most important river (after the Blue Nile/Abay), as it eventually drains into the White Nile, contributing 14% of the total Nile flows. The Baro Akobo river basin has an area of 75,912 Km<sup>2</sup>, covering parts of the Benishangul-Gumuz, Gambella, Oromia, and SNNPR<sup>6</sup>

(Awulachew et al. 2007). The Gambella Landscape comprises approximately 40% of the Baro Akobo Basin (see Figure 2). Despite its vast water resources, little or no development took place in the basin. There are external and internal reasons, such as the complex hydropolitics between Ethiopia and its downstream neighbors Sudan and Egypt, but also the lack of priority given to this basin due to the more lucrative developments in the Blue Nile (Cascao 2013:158). A significant

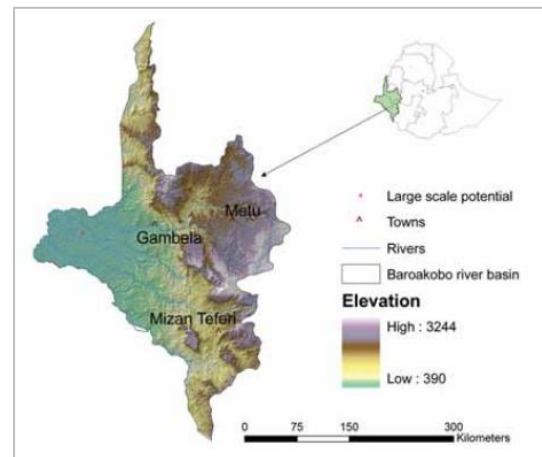


Figure 2  
The Baro-Akobo river basin,  
showing the Gambella region  
Source: Awulachew, S.B. et al. 2007

portion of western Gambella is transformed to vast wetlands, which during the dry season contract to remnant pockets of permanent wetlands, the most significant of which is the Duma wetland<sup>7</sup>.

### 4.3. The case of Saudi Star

The Saudi Star Agricultural Development PLC<sup>8</sup> is a sister company to MEDROC Ethiopia, a multibillion-dollar company investing in various sectors of the Ethiopian economy ranging from gold mines to five-star hotels, agribusiness, and construction companies. It is owned by a politically-connected Saudi businessman of Ethiopian descent (Deneke 2013). Saudi Star is currently developing a rice plantation on 10,000 ha along the Alwero river in Abobo Woreda. Over the past 2-3 years they have only developed approx. 250 ha land, and cleared another few hundred hectares. They have a water use permit to irrigate rice paddies from the Alwero Dam. They started to develop a 31 km long canal to transport water from the river to the rice fields, but without any monitoring mechanisms, it is unclear what the effects of the increased water use will be on the downstream users, the Duma wetland, and the wildlife. A severe resistance from the locals community has ended in violent murders of farm workers in 2012

<sup>6</sup> SNNPR stands for Southern Nations, Nationalities, and Peoples' Region

<sup>7</sup> Approximately 40 or 50 thousand ha during the dry season

<sup>8</sup> Private Limited Company

(Ethiomeia 2012). Before Saudi Star arrived in the region, a smaller scale domestic investor (I4) acquired a water use permit for his 200 ha land and started irrigation on 25 ha. Since the construction of the canal started by Saudi Star, this domestic investor has had his access to the water cut off, despite a still valid water use permit.

## **5. Theories and analytical framework**

The section will introduce the key concepts and the framework to guide the analysis in the next section. Firstly, I turn to the scholarship of political ecology to understand how conflict emerges when the relationship between the people and the environment is ruled by power asymmetries. Furthermore, I use the political construction of scale concept to analyze the governance of land deals in order to explain some of the challenges identified in the process of governing such deals. The framework for analysis is presented at the end of this section, which is based on the SES Framework by Ostrom (2009).

### **5.1. Political Ecology**

The approach taken in this study to understand how political processes shape the resource system is derived from the broad field of Political Ecology (PE). It is a theoretically eclectic field concerned with the relationship between people and their environment in a broader context of economy and the state. I use this PE approach in order to unlock the distribution of power in the process of natural resource allocation and use.

Robbins (2004) argues against a-political ecologies. He claims that the Malthusian reading of the conflicts over resources as a scarcity issue can be better observed through a PE approach. The underlying cause for such conflicts is due to power relations through which resources are distributed. The control over the environment is shaping both society and the natural resources (Watts 2000). PE is taking an approach that commits us to contest the reproduction of socio-natural inequalities (Loftus 2009), as with power imbalance the impact of natural resource degradation may remain or become concentrated.

The scholarship of PE focuses on social injustice caused by power related environmental issues. Thus, it is linking concerns of political economy to problems of environmental control and ecological change (Saunders 2010). It is a broad field, but there are areas relevant for consideration in case of agricultural investment. Loftus argues (2009:954) that the PE of water has been at the forefront of developing new approaches to human–environment relations. It helps to illuminate the connection between biophysical landscapes and political

economies of development, in other words the linkages between the ‘local’ and the ‘global’. Looking into these different scales allows us to see how the actions and interactions between local and global are shaped by one another (Robbins 2004).

The characteristics of the physical environment shape the representation of the land deals—whether it’s a marginal land, ‘undeveloped land’, ‘unused land’, geographically borderland. The central role of conflict in PE highlights different forms of power (both state and non-state), and how these two reinforce each other. It is particularly important when studying a region where land deals take place as they have been characterized by struggles over ownership, use and access to land, labor, income, technology. The different meanings people attribute to land, water and other resources (as a productive asset, livelihood, homeland, burial place for ancestors) shape the conflicts around it.

## 5.2. Water Governance and the politics of scale

*Scale is not as easily objectified as two-dimensional territorial space, such as state borders. We cannot touch it or take a picture of it. Likewise scale exists not simply in the eye or political consciousness of the beholder. Where scale emerges is in the fusion of ideologies and practices. (Delaney and Leitner 1997)*

### *Governance*

Governance describes the governing activities of diverse actors that can be observed in behavior, and divergent institutional forms (Ostrom 2005). Governance ‘covers a whole range of institutions and relationships involved in the process of governing’ (Pierre and Peters 2000: 1), including both state and non-state actors (such as businesses and NGOs) (Lemos and Agrawal 2006:298). This indicates that local communities can have an increasingly significant role in shaping their environment, and some argue this is necessarily positive (Agrawal and Gibson 1999; Ribot et al. 2006).

### *Politics of Scale*

I wish to understand and theorize real-world contexts wherein new territorial and scalar identities, structures and practices have arisen. There are geographic and non-geographic processes and representations of ‘scale’. Scale is a dimension of thinking about economic, political, social and environmental change (Jonas 2006). This concept is suitable for human geographers to realize that the organization and presentation of socio-ecological processes is a challenge. I argue that if we gave more attention to the ‘inbetweenness’ of scales rather than the local-global and top-down/ bottom-up dichotomies, the socio-ecological impact of land deals would be better understood. Working beyond these binaries can provide a lens to think

of more alternative ways of organizing social, economic or every-day life at all scales (Gibson-Graham 2002). When something significant is happening at a particular ‘scale’ (e.g. Woreda), it is not necessarily that particular ‘scale’ which is the determinant. Scale is not the only territorial structure along which social actors mobilize themselves, but this concept can nevertheless help to reveal the processes taking place between spaces - vertical, hierarchical, or site-scales (geographical scope) (Jonas 2006).

#### *Water Governance and the politics of scale*

Both scale and governance are currently salient issues for social scientists engaged with water issues, because significant scalar reforms to water management have taken place in the past few decades. Although varied, these reforms often entail devolution to lower scales of management, increased citizen participation, new decision-making processes, and new types of community organizations (e.g. watershed committees) (Bennett et al. 2005; Castro 2008; Boelens et al. 2010). This would indicate that there would be wider actors involved and given more significant roles in environmental management (Pierre and Peters 2000; Gunningham 2009).

Using scalar politics when studying water governance is a way to refine our thinking about human-environmental and hydrosocial relations. Water is a flow resource, suitable to help us use the concept of scale beyond the ‘fixity of territory’ (Norman et al. 2012:54). What is quite new in merging these two concepts beyond those works that already stated to deal with this relationship (*Ibid*), is to acknowledge what Budds and Hinojosa (2012) note, that both water and its governance, as well as scale *per se* are socially constructed and politicized. Our current water governance systems follow ‘socially constructed political demarcations that aim to fix water to a territorial scale for the purposes of management’ (Molle 2006, 2009; Norman and Bakker 2009; Cohen and Davidson 2011). As such, various highly fragmented systems are in place to govern possibly one of the most interconnected flow resources on the planet.

### **5.3. The SES Framework for analysis**

The theories discussed above will help examine the current governance arrangements in place to manage large-scale investments in Gambella region, while the framework will guide the contextualization of the governance into the whole Resource system and other, ongoing socio-economic processes.

To guide the analysis, the SES framework developed by Ostrom (2009) will provide the basis for understanding the relationship and interaction between the governance of resource

allocation and the resource-use related social and ecological dynamics in the Gambella region. The SES includes social, economic and political settings and relates to ecosystems. SESs are complex and layered, with multiple subsystems that are separable but interact to produce outcomes at the SES level. This will also feed back to affected subsystems and their components, as well as other larger or smaller SESs. Figure 3 shows the SES framework by Ostrom (*Ibid*).

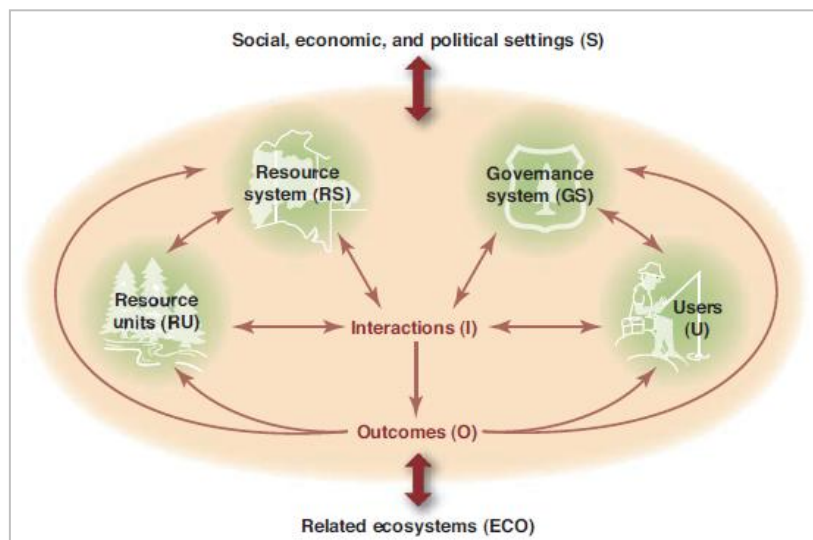


Figure 3 The core subsystems in a framework for analyzing social-ecological systems  
Source: Ostrom (2009)

### *Explanation of each analytical field*

Subsystems are so-called analytical fields, which will be used to explain, in the case of Gambella, the resource system (i.e. the Alwero river), resource units (i.e. trees, land, fish in the Alwero dam etc.), users (i.e. local farmers, fishermen, investors etc.), and government (i.e. organizations and rules that govern resource allocation). Table 3 below summarizes these fields, the examples from Gambella and theories applied to explain them together.

The **Resource system** has interconnected ecological and social elements. It is built up by different characteristics, such as size, boundary, constructed facilities, predictability. In case of rivers e.g. access to and withdrawal of water, water flow, quality of the water, hydraulic infrastructure. Territories are designated by borders that appear as tangible lines on a map, but only work because they are patrolled and defined by a gentleman's agreement to acknowledge and respect formal claims (Wolford et al. 2013). The **Resource Unit** has distinctive components of the resource system, characterized by its mobility, interaction with resource users, economic value, etc. After defining the resource system and the units in it, particular emphasis will be put on the **Governance system** to identify the decision-making legislative



authorities and the rules and rights composing the legal framework. Legislative authorities are actors determining the law (mandate, organizational capacity, resources, and strategic horizons), the governance framework, and its representation. The authorities have regulatory control on decision making and establishing rights. It tells us what structures exist to operationalize and manage rules and their enforcement. Rules and rights can be formal or informal, operational or managerial. The other unit of particular importance is the **Users**, whose livelihoods depend on the resource system or its units, as well as actors who have interest in the resources - economic or political. The users may differ in attitudes, values, approaches, and their number and activities can change over time. Identifying them can also help to understand the relationship between old and new resource users.

Analytical fields	Description	Examples from Gambella	Main theories used
<b>Resource system</b>	Ecological and social elements building up a resource system which are in dynamic with each other. Characteristics: <i>size, boundary, constructed facilities, predictability</i>	Abobo Woreda in Gambella, the Alwero river in the Baro-Akobo basin, Roads, the Alwero Dam, the agricultural land areas, the irrigation canals, the Gambella National Park – the Duma wetland	Water governance and politics of scale
<b>Resource Unit</b>	Distinctive components of the resource system, measurable. Characteristics: <i>mobility, interaction with resource users</i>	Trees, wildlife, water flow (quantity) and quality of the river, fish in the Alwero dam, arable land	Political Ecology
<b>Users</b>	Those with interest on, activities, meanings attached to the Resource System. Characteristics: <i>attitudes, values, approaches, number and activities, which can all change over time</i>	The local people (including ethnic groups, and highlanders who were resettled in the 80s), domestic and foreign investors (agricultural)	
<b>Governance System</b>	<b>Authorities</b> Actors determining law. Characteristics: <i>mandate, organizational capacity, resources, and strategic horizons</i>	Governmental and non-governmental entities: Federal Ministries, Regional Bureaus, Woreda Administrations, basin authority if exists, Researchers, NGOs working with water, land or both resources	Political Ecology + Water governance and politics of scale
	<b>Rules</b> Formal or informal, operational or management rules, and the mechanisms to acquire them	Criteria for resource allocation, necessary documents for acquiring resources, Land rate, Water use permit, water use fee, other national development plan e.g. Villagization program	

Table 2 The Gambella case within the SES framework and applied theories

## 6. Findings and Discussion on the Gambella Socio-ecological System

This section presents how the process of land and water allocation is governed for during land deals in the Gambella region. The case of the Saudi Star rice farm will be used for illustrating this practice. Ostrom's (2009) framework will provide the guiding principles to structure the

analysis: the Resource System, the Units, the Users and finally the Governance. Emphasis will be put on the last analytical field (Governance), as the Authorities and the Rules are the most relevant in the management of resource-use connected to land investments. Finally, in the second part, a holistic synthesis of the analysis will be made, outlining the main findings and providing an answer to the Research Question of how the governance of land deals influences resource use in Gambella.

### 6.1. The Resource System

A significant feature of the Resource System is its boundaries. The area of Gambella, which is of particular interest in this study is the Abobo Woreda. However, it is challenging to clearly outline borders for the Resource System under analysis, because it entails tracing a flow resource, namely the Alwero river. Capturing the whole of Baro-Akobo river basin or the entire length of the Alwero river is beyond the scope of this study. Although the case study area (shown in the red frame on Figure 4 below) is limited in territory, the scalar approach introduced in the theory section will be instrumental in following water flows outside of this red frame, and connecting it back to the broader context of the Baro-Akobo basin (Norman et al. 2012).



Figure 4  
The Resource System under study in Gambella region

Even if a river's upstream and downstream areas, cannot be included in the data collection and case study, they ought to be considered in the governance of the resource. According to the Land utilization Bureau, the land cover consists of: cultivated land (3,3 %- 17 325 ha), grass land (34,3%- 717 027 ha), the Swamp (7,7%), forest (16,7%, 534 000 ha) and the woodland (41%, 1 316 144 ha) (RG3). Rahmato estimates (2011) that approximately 1,2 million ha of land was allocated for agricultural investment in the region.

The human-constructed facilities are part of the Resource System, and those included in this study were selected because they play an important role in shaping the whole SES of

Gambella: the roads, the Alwero Dam, small- and large-scale farms, and the main irrigation canal that brings water from the Alwero Dam to the Saudi rice fields.

The photo below<sup>9</sup> show the dirt roads that connect Gambella town with Abobo Woreda. During the rainy season, the road is difficult to use, which makes the area even more isolated.



Photo 1: Abobo Woreda,  
Source: the Author

The photos 2-4 show the Alwero Dam near Abobo town was built by the government in the 80's with Russian support for the irrigation of 10 000 ha land. It was not used for over 20 years, after which the Saudi Star company acquired a permit for dam-water use in that area (FG2).



Photo 2-4: The Alwero dam and its spillway, The Alwero river downstream from the dam  
Intake of the Alwero dam that allows water flow to the main canal  
Source: the Author

<sup>9</sup>Pictures were taken by the author during field visits.

The Abobo town is the center of the Woreda and an Anuak zone. Most locals do fishing from the Alwero dam, while some farmers (mainly of highlander origin) have small-scale plantations around the dam area as Photo 5 shows below.



Photo 5: Small-scale plantations around the Alwero dam  
Source: the Author

The agricultural land areas, with rice cultivation by the Saudi Star company (Photo 6-7).



Photo 6-7: Irrigation on the Saudi Star rice farm  
Source: the Author

The construction of the main irrigation canal (Photo 8-9) that will be used to allocate water to the rice fields. When finished, it will be 31 km long. As of January 2014, approximately 7 km was done (I2).



Photo 8-9: The main canal  
Source: The Author

The population is settled sparsely in the lowlands of the basin, which provides a conducive environment for water resource development. Twenty-two large-scale potential irrigation sites are identified in the basin, with an estimated irrigable area of 1,019,523 hectares (Awulachew et al. 2007). As a consequence of regular flooding, the lowland areas are mainly used as pastures for grazing and no major water resources development has taken place to-date. The hydrological characteristics of the basin are monitored by the Ministry of Water, Irrigation and Energy (MoWIE) (FG7). There is an overwhelming perception amongst government officials at Federal level that the water resources are plentiful and abundant, with many reporting that “There is ample water...enough water” (FG4) and that “The demand (for water use) in the basin is very low” (FG3). If water is indeed abundant, its management receives less attention, compared to other, more limited, river basins in Ethiopia (FG5). The neglect of the basin is reflected in its Master Plan dating back to the 90’s – a problematic issue, given that this document remains the main point of reference for water use related decisions (FG4).

The Gambella National Park (Photo 10-11) was established in 1973 by the Region (FG9). Given its trans-boundary nature with borders in South Sudan, the management of the park belongs to a Federal Institution, the Ethiopian Wildlife Conservation Authority (EWCA). There are about 45 Protected Areas in Ethiopia, 15 of which fall under EWCA, the rest being managed by Regional Bureaus. The demarcation of park boundaries has become increasingly urgent with the arrival of the investors. The Duma wetland is part of this protected area and provides a habitat for multiple wildlife.



Photo 10-11: The Gambella National Park  
Source: HoAREC&N gallery<sup>1</sup>

Ostrom (2009) claims that in order for users to predict different scenarios in the Resource System, in this case due to land investments, the predictability of the system dynamics needs to be sufficient. The type of resource system determines how predictable it may be. Forests tend to be more predictable than water systems. Due to its complex nature, the flow resource

may encompass different climatic, geographical and social systems on the ground. The diverse Resource System under study here includes water, land, forests, human settlements as shown above, which are in interaction and dependency with each other. This way, the predictability of how land investments would impact each of these may be low. However, there are a couple of outcomes that are fairly predictable: the wetland will dry out, wildlife will be disturbed, and the local population will experience decreased access to water.

## 6.2. The Resource Units

The Units are suitable indicators to guide the understanding of how the land deals influence the whole SES. Units are those entities that can be measured, hence any change occurring in terms of their number, characteristics, quality or natural reproduction can be traced. In the Gambella region, and the case study area in particular, the Units deemed relevant are trees, shrubs, plants in the National park, the various types of wildlife, the amount and quality of water flow, the fish in the Alwero dam and its downstream, and also the arable land. The sustainability of these Units is highly interconnected and important for the livelihood of the local people. A researcher argued that since over 85 % of the population in Ethiopia depends on subsistence agriculture, water and land are real political matters (R1). During the data collection I documented agribusiness sites after deforestation in Abobo Woreda, as shown on Photo 12-13 below.



Photo 12-13: Deforestation in Gambella  
Source: The Author

Respondents from both Federal and Regional Government referred to the problem of the pace of deforestation being faster than the cultivation of cleared land areas (FG1, RG9). However, forest degradation did not start with the arrival of agribusiness. Reusing (2000) performed a forest monitoring based on airborne and satellite remote sensing data to assess the depletion of Ethiopia's natural forests, including the upstream river areas of the Baro-Akobo basin. In the South-West of Ethiopia, shifting cultivation had been practiced for centuries and has not

posed any threat to the forest resources. The situation changed when during the organized resettlement program people migrated from the central and northern parts of the country. With the new settlers, a new farming system was introduced that was not adapted to the environmental conditions in the area. So, Reusing concludes (*Ibid*) that the forest degradation is closely linked to the ongoing population growth. As population grows, the demand for land for living and agricultural production increases. Consequently, the pressure on forest resources themselves increases due to a higher demand for fuel-wood and construction timber. The natural regeneration of forest resources is obstructed due to a high population of grazing and browsing livestock within the forests. According to Figure 5 below, forest degradation started already in the 1970s.

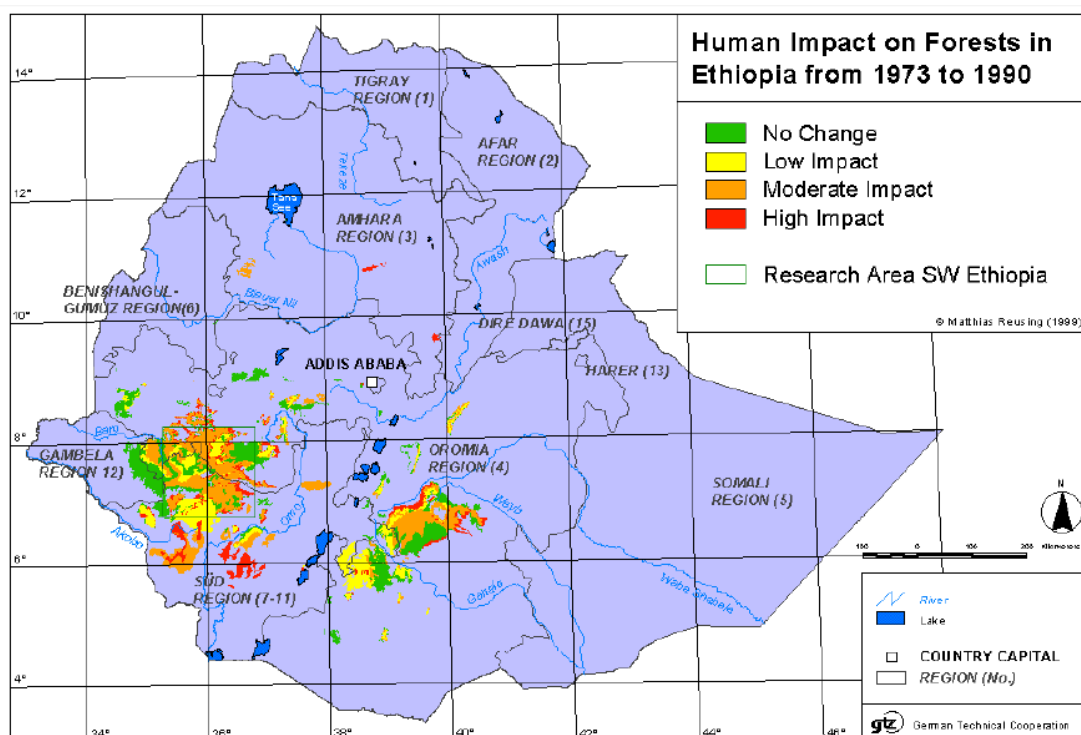


Figure 5  
Forest degradation in Ethiopia between 1973 and 1990  
Source: (Reusing 2002)

The headwaters of critical rivers in Gambella, including the Alwero, could be negatively affected by deforestation by one of the Indian companies (Addis Voice, 2011). The forest was both a sacred place and a livelihood for local people, accommodation wildlife and allowing coffee production (RG7). The action and interaction of Users within the Governance System has an impact on the state of the Resource System and the Units involved. The arrival of large-scale investors in Gambella is undoubtedly changing the landscape (OI 2011; Rahmato 2011).

Given that fertile land and water in the Alwero river are Units in the Resource System, their economic value is increasing due to the appearance of land investments. However, since water fees are absent in this region, there are multiple implications for the use and monitoring of the resource, as shall be argued in the Governance section below (FG3).

EWCA is responsible for Wildlife Conservation in Gambella. The animals migrate between South-Sudan and Ethiopia, which requires cooperation between the two countries. A selection of various wildlife species can be seen on Photos 14-17 below: Elephants, Nubian giraffe, the endemic Nile Lechwe, and a White Eared Kob which is collared in order to follow its migrating patterns.



Photo 14-17: Migrating wildlife in the Gambella National Park  
Source: HoAREC&N gallery<sup>1</sup>

Hydrology is critical for wildlife movement and fishing. During the dry season, HoAREC&N works with wildlife conservation through EWCA, advocates for better land use through cooperation with the Land Utilization, Administration and Environmental Protection Bureau (LuB) to identify important resource areas (NGO1). According to a conservationist (FG9), village expansion and road construction fails to take wildlife migratory patterns into consideration.



### 6.3. The Resource Users

The Users can be identified by their activities, interests, and meanings they attach to the Resource System and the Units involved. Users have different rates of dependency on land and water resource access in Gambella: for some local people it is their livelihoods, for others it might be their identities as having ties to the ancestor land, or the source of economic returns. However Users also shape the Resource System, which makes their operations and interaction instrumental to understanding and predicting the sustainability of the whole SES. For the case study I identify the local people living along the Alwero river, including ethnic groups and highlanders, and the agricultural investors to be the main Resource Users.

Land and water resources are key for the people, who mainly live in the lowland areas in Gambella, to maintain their livelihoods, among which subsistence agriculture (Anuak and highlanders mainly), pastoralism and agro-pastoralism (Nuer), fisheries (Anuak) and beekeeping (Mezhenger) (Cascao 2013:166). Recessive, flood-based agriculture is practiced along the rivers, while the Nuer people and their cattle often have to cooperate in sharing the use of territories and access to the same resources.

The Federal and Regional government (FG, RG9) claims that investment will be allowed only where settlement patterns are not linked with rivers “The river banks are reserved for the community”. “In the dry season, the river dries up and they want to make sure the communities can drink water downstream, and the Duma wetland has enough water too.” (FG8). This is an example to pinpoint how the governance of land allocation for land deals does not consider water (the river) to be a flow resource. If communities live downstream from an irrigated farm, even if they are not resettled, their water availability can be impacted by having less water flow in the river in the long run.

Conflicts over arable land along the river banks are not a new phenomena in Gambella (Sewonet 2002; Tadesse 2009; Cascao 2013), thus the tensions emerging over the land deals (Ecadforum 2012) are occurring in a region in which stories of bloodshed over resource access are rampant (Mengistu 2005). In relation to this, an officer from Abobo Woreda said “The conflict is not between small or large-scale farmers, but within the community, if their land is taken away” (WG2). The local groups had traditional conflict resolution mechanisms (Dereje 2011). This historical background of Gambella is essential to understand how Investors become new Users in a Resource System already loaded with tensions.

The investors' view and perception of local communities in Gambella was also expressed during the interviews. Some of them acknowledge the locals by saying "The business model of the Company is not restricted to development of commercial farming and setting up of agri-processing facilities, but also includes engagement of farmers in the region to grow crops and providing a market. (...) The company will work hand-in-hand with farmers and support them technologically in the initial years" (I5). Another investor said "Not everyone work properly. They are farmers so they know what to do. Shortage of education, working tradition is less, for this reason they do not work properly. They just sit." (I4). One investor mentioned that their company is having discussions with the World Food Programme (WFP) to investigate if, in the future the crops could be sold for them, strengthening the national food security (I3).

From the early 90s until 2013 there have been 860 investors in Gambella, 732 of whom in the agricultural sector (Land Investment Agency statistic). Among them 7 are foreign investors: Karuturi (100.000 ha), Saudi star (10.000 ha), Ruchi (25.000 ha), Bho (27.000 ha), Centi (10.000 ha), Humoa (25.000 ha), Verdant (3012 ha) (RG3). This has created over 38 113 permanent, and 177 365 temporary employment opportunities, which is more than 50% of the actual size of the local population (*Ibid*). An officer in Abobo Woreda said, 65000 ha is already given away for investors, out of which 20 000 ha is being cultivated.

#### **6.4. The Governance System**

In this section, I divide the Governance system into two components, the Authorities and the relevant Rules and Rights. Considering the 'inbetweenness' of scales that Gibson-Graham (2002) emphasize when dealing with governance, I will outline how my respondents reflect upon the mandate, capacity and strategy of relevant authorities on all scales; and what was the general opinion about management rules and process of land and water allocations.

##### **6.4.1. Authorities**

Table 3 below summarizes the stakeholders (governmental and non-governmental entities) involved in governing the resources of Gambella, whom I approached during the research process. The list of all respondents can be found in Appendix 1.

Political scale	Land resources	Water resources	Interest in Synergy in Land and Water resources
<b>Federal</b>	Agricultural Investment Land Administration Agency (AILAA) at the Ministry of Agriculture	Ministry of Water, Irrigation, and Energy (WUPAD)	Ministry of Environment and Forests
		Alwero Water Resource Administration (AWRA)	International and National Research Institutes
			HOAREC&N
			EWCA
			NGOs, INGOs
<b>Regional</b>	Bureau of Agriculture (BoA)	Bureau of Water (BoW)	HOAREC&N
	Land Investment Agency (LIA)		Land utilization, administration and environmental protection bureau (LUB)
<b>Woreda (District)</b>	Woreda Administration		

Table 3

List of interviewed authorities deemed important for the governing, managing or protecting natural resources in Ethiopia, in particular for the Gambella region within the Baro-Akobo river basin.

### The mandate of land allocation

All the three political levels are involved in land allocation, while the cooperation and contribution of at least two scales is necessary. The Agricultural Investment Land Administration Agency<sup>10</sup> (AILAA) within the Ministry of Agriculture (MoA) in Addis Ababa is the main responsible body to support investors in the process of acquiring land (FG1). “It is believed that the newly established agency facilitates overall agricultural investment, land administration and transferring process more significantly than before” (Public Relations Bureau, MoA 2013). The Federal government has the mandate to allocate land above 5000 ha (RG4, RG9), and give license for foreign or Ethiopian Diaspora investors, while domestic investors are directed to the Region (*Ibid*).

LuB<sup>11</sup> on the Regional scale, located in Gambella town, is responsible for monitoring the environmental and social impact of land investments (RG2, RG4). The Woreda Board is the decision making body at the Woreda level (WG2). They are responsible for deciding which plot of land should be given for investments (*Ibid*), but they meet the investors just as the second or third party after the Federal or Regional Authorities. This Board also issues

<sup>10</sup> Formerly Agricultural Investment Support Directorate

<sup>11</sup> Mentioned earlier, just to help the reader remember LuB meant Land Utilization, Administration and Environmental Protection Bureau

recommendation letters if an investor wishes to take a loan from the National Bank of Ethiopia, but the Regional Bureau of Agriculture (BoA) can veto it. This is one sign of the Region having power over the Woreda level. The Woreda also participates in the monitoring process (RG9). It emerged from the interviews that not all investors can be monitored and inspected due to lack of capacity (to be discussed later on), which is not only showing a weakness in the governance system, but also points out a potential influencing factor on the people or the environment.

Another important aspect that emerged out of the interviews is the administrative scale which takes the revenue from the land lease and decides where to invest it. Rahmato claims (2011) that the land rent, income tax, and other payments are benefitting the Regions, while at the Federal level, an officer said it is the Woreda (FG2), while a regional officer said it stays with the Federal (RG7). This revenue from the land deals could be potentially beneficial for the region. I have no further information as to how this revenue is used in Gambella, but the contradictory information seemed to point out the need for further research on this matter.

### **The mandate of water allocation**

In the absence of a River Basin Organization (RBO), the responsibility for the management of the Baro-Akobo basin is shared between the Federal and Regional Authorities (FG5). Water use requests above 200 ha of land are managed by the Water Utilization Permit Administration Department (WUPAD) at the MoWIE (FG3). WUPAD is mandated to administer permits for water users, license for water work contractors, and water related consulting companies (FG4)<sup>12</sup>. Since there are very few new demands, their main task is to renew the permit every year. Although the Regional Bureau of Water (BoW) had the mandate to give water-use permit for those with less than 200 ha land a few years ago (RG4), there are 3 small-scale investors who received their water-use permit from the Federal Ministry. “They [investors with less than 200 ha land] took the license before the Regional state started to establish permit issuing. I have no further information since then” – said an officer at the MoWIE (FG4). The BoW is not responsible for monitoring, it is mainly the Federal government, or through joint cooperation (RG8). There are currently no mechanisms at place

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<sup>12</sup> There are two case teams under the Director, the Water Administration Case Team which evaluates the water use applications, do on-site visits, check if the business plan is in accordance with the Environmental Impact Assessment (EIA), however none of staff members has water governance background (*Ibid*). The other is the License Issuing and Permit Case team, which administers the permits.

to control this (FG5). Given the change in the political scale for the administration of water use, it remains unclear which scale the mandate of monitoring took.

There are several non-governmental actors operating in the Gambella region, who are working for the protection and conservation of other Users and Resource Units in the Resource System. The Water and Land Resource Center (WLRC) disseminate hydrological and climate-related web based open-source information on land and water, empirical evidence used for planning, decision making, even for transboundary negotiations based on facts (R1). While they do not operate in the Baro-Akobo basin, but their approach can be applied from other Ethiopian basins. HoAREC&N is working with wildlife conservation, advocates for better land use through working with LuB to identify important resource areas. In case of wildlife conservation, EWCA has general administrative connection with the Woredas, formal relation with the Agricultural, Tourism and Culture Bureau (ATCB), and informal relation with the LuB in Gambella (FG9). As the current state of art, these actors are excluded from any phase of the land investment process, which puts doubt on the governance process and its socio-ecological impacts, as Lemos and Agrawal (2006) claimed.

### **Capacity of the authorities**

The AILAA went through an institutional capacity building process (FG1) assuming a new structure of 5 core directorates<sup>13</sup>. There are currently 18 members of staff, to be increased to around 200 people, and the office will move to a new building. The Agency plans to provide more support to the Regions in cooperation with Addis Ababa University (AAU) (FG2), because of their weak capacity and high turnover of manpower. While at the MoWIE, WUPAD's capacity is permanent, since "the demand for water permits in the sub-basin is very low, there is no need for having a bigger capacity" (FG3).

On the Regional level, the Land Investment Agency (LIA) stores extensive information (See Appendix 3) on land investors. The LuB has limited capacity in terms of manpower, vehicles and technical appliances, which is hindering their performance. They struggle to keep track of investment progress. The Regional bureaus are expected to monitor lands in foreign hands, which were allocated by the AILAA (RG10).

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<sup>13</sup> Land Administration Directorate, Investors Support Directorate, Environmental Protection Directorate, Agricultural Economic Zone Directorate, Legal Directorate

The capacity on the Woreda level seemed to be hard to judge. The previous Head of the Woreda Administration was in prison due to political reasons (in connection with corruption over investments) (WG1). The high turnover in positions makes it difficult for institutional mandates to be fulfilled properly, capacity to be enhanced for the Federal level, while remaining insufficient on the Regional or Woreda levels. This seems to create, or maintain a power imbalance among the different political scales (Robbins 2004).

### **Strategies**

Water is perceived as a precious resource (FG2). In accordance with the GTP, the investors play a crucial role in developing the irrigation system in Ethiopia, by which they can privatize infrastructure such as roads, canals, or dams (FG3). An officer at the MoWIE shared his conviction that decision makers in Ethiopia want to use investors to “develop the country as fast as we can”, that is why they create an environment which is welcoming and supportive for them (FG4). Accordingly, obtaining a water use permit is not always a priority, because they assume “the water in an area like Gambella is enough, because there is rainfall” (*Ibid*). I discovered further that a strategy dealing with all blue water types (both surface and groundwater on the Baro-Akobo basin level) as well as with green water is lacking, even though the basin has a Master Plan (1996). However, the BoW has a project to assess both groundwater tables and surface water flows in three Woredas where the groundwater level is low (RG8). The type of water (color and intensity) used for the land investments determines its effect on transboundary water management (Jägerskog et al. 2012). This means that the scale of water governance transcends from the local to the international level. Taking different sources of water into consideration is one strategy for good water governance of a transboundary basin like the Baro-Akobo, but this aspect seems to be overlooked by WUPAD. Whether the underlying cause is the lack of RBO or other potential capacity issues, remains to be specified. There is a possibility of a conflict situation emerging in the long run spreading from the local to the transboundary levels.

Visions for the environment and wildlife conservation is expressed by a EWCA representative in Gambella (FG9) who found it problematic that they belong administratively to the Ministry of Culture and Tourism, despite the fact that the Ethiopian Government has no strategy to tap into the tourism opportunities of the Gambella Natural Park, the attractive landscape, and its endemic wildlife (NGO1, Pearce 2012). Instead, EWCA would prefer to belong to the Ministry of Environment Protection and Forestry in order to function more efficiently (FG9). Although this issue is not related to the governance of resource allocation, since EWCA is

working for the sustainability of the Resource System and Units of Gambella, it is an important showing the complexity of interactions within a socio-ecological system. It is not solely the investments that shape this multifaceted area.

#### 6.4.2. Rules

The Regional and local governmental institutions copy the Federal government's policies<sup>14</sup>. A local institution cannot effectively assess if a policy is right or wrong, though it can assess its impact on the livelihood of people in a given Region or Woreda. The political scale on which an activity is performed should be problematized as Neumann (2009) suggests, as we cannot assume the 'local' would have inherent qualities such as being more socially just or environmentally sustainable. There are several policies guiding water resource management<sup>15</sup> (R5), however there is a wide knowledge gap regarding the guidelines, principles, rules and regulations that these documents provide.

#### Land and Water related rules

Many of the land-related rules that emerged after coding the interviews relate to the rate of the land. In Gambella, the National Law on how to set the price for investment farms was to pay for the Woreda - 111 Birr<sup>16</sup>/ha/year for rain-fed agriculture and 158 Birr/ha/year for irrigation (including surface water only) (RG9, WG2). The government has growing awareness that it was a mistake to allocate big sizes of lands (NGO1), because the investors could not develop the land fast enough, mainly due to financial constraints. Therefore, the amount to be paid was decreased to 30 Birr/ha/year under the Regional regulation (RG9). The investors have to live up to the business plan they committed to, while the government makes sure the investors carry through their operations and do not cause damage (e.g. deforestation). It is a negative example for how governance interacts with the Resource Units, as the activity of the Users are not monitored or regulated.

Taxation is different for rain-fed or irrigated agriculture (RG7). Here, the investor needs to pay a different price for irrigating from surface or groundwater source. An Investor (I6) told me that their plan is to expand cultivated areas by the next rainy season, and they are testing a borehole to use groundwater in the future. Groundwater sources are not part of the water

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<sup>14</sup> Policy is mainly on the Federal level, a Regulation can be issued by any office, and can entail specific things such as guidelines on water allocation, defining how the resource should be used, while a Proclamation defines mandates of Bureaus (R2).

<sup>15</sup> Water Policy (from 2007), Water Resource Strategy (2002), Water Resources Development Program with short, medium and long term goals, Water Proclamation 2002, and proclamation for RBO establishment

<sup>16</sup> Ethiopian currency

allocation and do not figure in the contracts. In Gambella several of the investment sites around the Saudi Star farm I visited have already started or are planning to start irrigating their land from groundwater sources, and these investors are paying the price for only rain-fed agriculture. It seems that the land rate does not reflect the source of water used.

Currently, each investor needs to obtain a permit for water use, and renew it annually, however there is no water use fee introduced (FG3)<sup>17</sup>. If the given amount of water is not used, the permission can be given to someone else. Some of the experts in the land and water resource management field in Ethiopia think that water fees should be a priority (R2,R3), and not let investors use water resources for free as they do in Gambella and the Baro-Akobo basin for example. It would make water users manage the resource more efficiently, and the revenue could benefit the community. Some suggested (R2) upstream regions in a basin should do conservation work to stabilize water flow, which “could create a win-win situation and bring benefit for all” (R2). However, this pricing system is problematic until water is not measured, or it could be based on land size, crop water needs etc.

### **Criteria for resource allocation**

Riverbanks will be kept for the local community (FG2, RG9). “We surveyed the areas checking soil type, land cover, suitability, settlement patterns. It is a government principle that no one should be displaced due to an investment, otherwise they have to be compensated” (FG2). In this case the social aspect is considered, but not the fact that the river is a flow resource. The fact that land near settlements close to the river is not allocated does not mean that giving land without resettlement does not have an impact on other communities downstream. Even though it is the ‘people’ that are taken into consideration and not the environment, both are part of the Resource System and any interaction has impact on all fields of the system.

Recently there seems to have been a shift in policy, away from the open-door policy towards a more rigorous criteria in regards to land allocation in Ethiopia (R3). “The land of those Investors who did not fulfill the requirements of land use, and performed very little agricultural activity as they committed themselves to in the business plan, will be taken back” (*Ibid*). Earlier decisions regarding land leases were problematic in terms of following criteria. Guidelines from FAO, IFAD, UNCTAD and the World Bank principles for responsible agro-

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<sup>17</sup> The water use fee is under consideration by the Ministerial Cabinet (*Ibid*).



investments (FAO/IFAD/UNCTAD/World Bank Group 2010), aiming to make large scale agricultural investments environmentally, socially and economically sustainable (Jägerskog et al. 2012:16) have been largely ignored. These guidelines are however voluntary, and do not insure against disappointing results like investors extracting rents. Investors who did not fulfill the requirements of land use, and performed very little agricultural activity, will have their land reassessed and eventually their license could be withdrawn. “The dilemma is with these already existing contracts, because nobody knows whether their land could be totally taken back or only their size would be reduced” (R3).

### 6.4.3. The governance of agricultural investments

#### **Land resource allocation**

It is either the size of the land (5000 ha as benchmark), or the origin of the investor (Foreigner or domestic) what seems to be the guiding principle for who is mandated to allocate land for investment. Allocation is a long process that takes several steps, and requires close cooperation at different political scales and at least two levels (Federal and Regional, or Regional and Woreda) to license and administer the deal (FG2, RG1). These are the first steps before any investment can take off on the ground. However, I did not come across any institutional mechanisms between these levels that would facilitate cooperation, negotiation, or balance out the power between the scales.

The Federal government requires a standard feasibility study and a business plan, containing a socio-economic and a technical part, agronomy practices, environmental management, a financial section and an M&E (FG2). The investment license is issued by LIA (RG9, WG2), and it requires proposals and bank statements from the Woreda. The Regional President's Council has a final word on giving the license, which then will be shared with the Woreda Administration. When this is issued, the investor contacts the LuB to determine the land. LIA assigns a GIS expert to help measure the site with GPS coordinates. The LuB is then responsible for issuing the EIA license, while the investor prepares an EIA study performed by a certified external consultant. The study has to include the current state of the land cover in the area (RG7). The LuB evaluates it, taking into consideration the livelihood of local communities and the environment (RG4, RG9). Since there is no land-use plan for the Gambella region (FG9, RG3-4, NGO1), it is highly problematic how these EIA documents are evaluated by LuB to make sure that the influence of the resource development will not compromise the Resource System, Units or the interest of other Users.

## Water resource allocation

The water use permit issuing process for the Baro-Akobo basin takes place in the WUPAD in Addis Ababa, where the investor has to fill in an application form, submit an EIA document and other legal documents (FG3). The request for the amount of water use is evaluated according to internal guidelines (prepared in October, 2013). This consist of five steps, written by the Director of the Department (FG3.) The most important factor to consider while evaluating the request is the Baro-Akobo basin Master Plan (1996). According to the Water Management Proclamation, the Directorate has 60 days to evaluate and issue the permit. When ready, they issue a certificate to the user, which is to be renewed annually. However, given the outdated Master Plan, this does not an efficient system for water resource allocation.

### 6.5. Implications of the Saudi Star operations for resource users

By January 2014, there was a general ban over allocating new land in Gambella, due to the large number of uncultivated land and limited progress on the investment farms. As of February 2014, the President Regional Cabinet was the responsible body to make such decisions (RG9). It remains to be seen whether this could lower the risk of mistakes. This case study presents a conflict situation between a large-scale (Saudi Star) and a small-scale (I4) investor, both with land and water use permits, illustrating the challenges within the governance process of resource allocation. Additionally, the potential impacts on other water users around the Alwero dam will be discussed.

Figure 6 illustrates the Alwero irrigation scheme, showing the location of Saudi Star, another investor, and the nearby Abobo town.

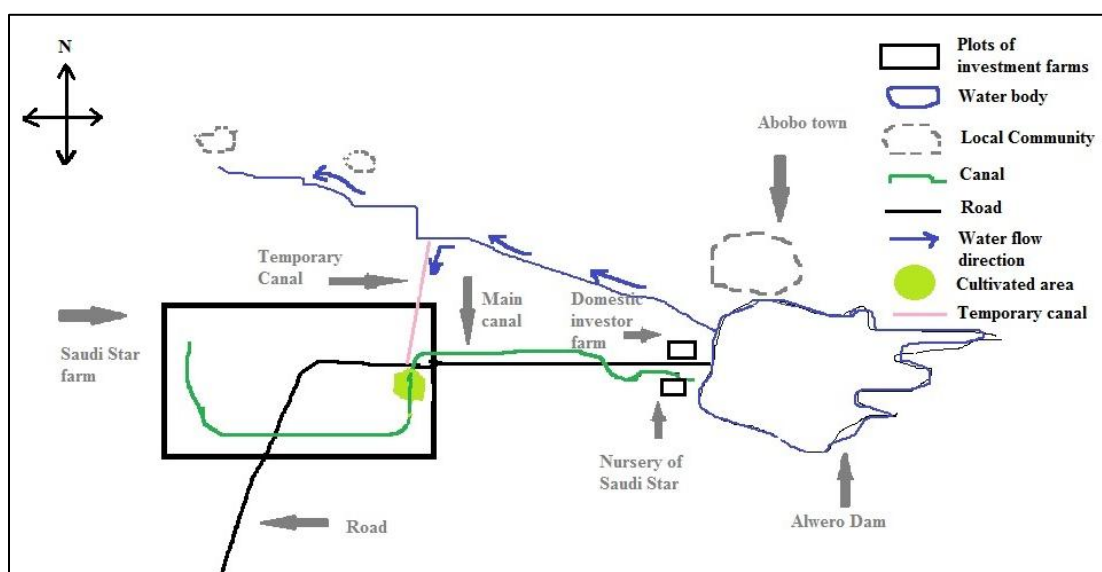


Figure 6  
Sketch of the Alwero irrigation scheme  
(The Author's own representation based on field observation and Google Earth satellite image)

The Alwero dam is located near Abobo town, where local people rely on fishing for their livelihoods. The farm of the domestic investor, I4, is near the dam, on the other side of the road from the smaller plot of land that was later allocated to Saudi Star and used as their Nursery for seedlings. Previously I4 was pumping water from the canal, however after its seasonal depletion, they requested a water use permit for dam irrigation. This new irrigation started on 25 ha in 2008. When Saudi Star arrived in the region with a user right for the Alwero dam's capacity from the government, I4 was denied access to its water use. With the change of policy, a special Proclamation favoring Saudi Star, I4 had no means to practice his right to water use (Deneke 2013). The issue was discussed between the Federal institutions (WUPAD and AWRA), who concluded that there is ample water that should be enough for all investors (FG4). Meanwhile WUPAD is planning to get in touch with the smallholders because they did not renew their permits (FG3).

According to the Abobo Woreda officer, The Alwero Irrigation Scheme was planned to irrigate 10 000 ha, taking downstream users (Duma wetland, wildlife) into consideration. This implies that the Saudi Star farm comfortably fits the plans, while other small irrigated farms have never been part of the plan. Consequently, the dam has less capacity of water than the amount allocated by WUPAD/MoWIE. Some claim that Saudi Star have the right to the full amount of water (I2, I7, FG8), while others acknowledge that there is an ongoing, unresolved problem with another domestic investor (FG4, I4). When Saudi Star got their water use permit and started their field operations (construction of the canal for which no feasibility study was done (FG4), the small-scale investor whose farm is located just 150-200 m from the Dam, 'lost his water' - an issue WUPAD officers are aware of (FG4). No EIA taking into account the water aspect was prepared (WG2) and the Federal government prioritized the foreign, large-scale investor over I4. Meanwhile, when asked about the matter, the managers of the Saudi Star, were not aware of any conflict and claimed their right to the full capacity of the dam (I5).

Other water users in the area are small-scale farmers near the Alwero Dam (LF) (Pictures below) who used the water from the dam by water pumps. The Dam Administrator said that these farmers are not considered to do irrigation (FG9). Therefore, their water use is not administered, or measured, as it is considered to be 'insignificant'. This is in accordance with the claim by Federal authority officials that there are 'abundant water resources'. Since the

Alwero Water Resource Administration (AWRA) is a Federal entity, they do not have the mandate to monitor such small-scale irrigation.

What are the challenges therefore created by the Saudi Star operations for water users along the Alwero river? Many of the investment farm projects fail to develop the land as they promise, causing damage to other Users, the Resource System, and the entire SES. Saudi Star is one example, as they developed just around 2% of their leased land size, while deforesting over 50%. While their water use from the Alwero dam is currently insignificant, it is still likely to impact the whole ecosystem, especially the Duma wetland.

The significance of a proper natural resource management and conservation strategy can be measured by the impact on the wider Resource System and the Users. This is the case in Gambella, the Baro-Akobo river basin, the forest areas, and the Duma wetland. The wetland remains swampy even during the dry season (FG9), providing habitat for wildlife. Research is lacking to measure water availability during the wet and dry seasons.

Taking the whole SES into consideration, the forest areas and wildlife migratory patterns should be included among the impact factors. The demarcation of the national park and implementing rules remain a challenge (RG4). Since the investment sites are located around the Gambella National Park, there is a high potential that invasive plants will enter the protection areas, causing siltation, organic nutrient loss, growing weed. A land use plan for the region is lacking (RG3), and it seems that water is not a component in allocation of land for agricultural investment, otherwise such conflicts would not occur.

There are no mechanisms to coordinate the various stakeholders in case of a conflict situation. Cooperation between the Federal, Regional, and Woreda level is also a contributing factor to shaping the SES. The EIA documents are required, they are rarely followed up or evaluated by authorities.

### **6.6. The Influence of resource allocation on the Gambella SES**

In this final part of the analysis, the research findings are related to the main question, elaborating the influence of the land and water allocation governance system on resource use in Gambella. How does the governance system of land and water resources allocation for agricultural investments influence the socio-ecological system in Gambella, Ethiopia?

As far as land resource allocation is concerned, the governance system was found to be complex, with clear roles and mandates of different political scales. However, given the

considerable length of the process, it takes various steps, documents, and follow-up work. Furthermore, the mechanisms to facilitate cooperation, power-balance, conflict resolution or negotiation are lacking. Non-state actors who may have relevant knowledge or capacity are not integrated into this process. While the Federal level authorities are growing their capacity, the Regional level lack basic equipment (such as vehicles or computers), and together with the Woreda struggle with high turnover in manpower. This results in interrupted governance process, creating knowledge gaps and potential platform for conflict, especially on the lowest Woreda scale. It seems that land is mainly seen as being underutilized (in a commercial sense) by the governing Authorities and Investors, without acknowledging the its value to the lives of local communities in Gambella, whose livelihoods and socio-cultural identity is at stake.

In terms of capacity, there are knowledge gaps in the guidelines and principles guiding responsible land deals. Besides having seemingly ‘top-down’ development strategies for the Gambella region, such as commercial agriculture or the Villagization program, it could be potentially beneficial for the whole region to find other pathways that pursue the idea of ‘inbetweenness’ instead of the binaries (Federal-Regional, Regional-Woreda) of political scales (Gibson-Graham 2002).

A land-use plan on various scales for the Baro-Akobo basin or the Gambella region as a whole is currently lacking. The criteria for evaluating land deals in terms of their socio-ecological impacts are therefore highly questionable. Without such a document, the Regional authority (LuB) cannot fulfill its mandate when assessing the applications from the investors. Neither of my respondents and none of the documents reviewed mention that other users, namely local communities, would be involved in identifying the location for land deals. Therefore, given the lack of a consultation mechanism, there is no institutionalized solution to the arising socio-natural inequalities (Loftus 2009).

As far as water resources are concerned, to base decisions of water use permit on an outdated Master Plan is problematic and creates inaccuracies around old data (hydrological, social, land-cover etc). The source of the water (surface or groundwater) is not differentiated as the two alternative land rates (rain-fed or irrigated agriculture) do not reflect this distinction. From an ecological point of view, this could be problematic especially if water use is not measured and administered on all political scales. A water use fee was mentioned to be potentially introduced in order to make water use more efficient, however that would require the measuring of water use. A jointly understood definition of ‘irrigation’ could be a good

starting point for successful cross-scale resource management. Considering the Alwero river as part of a transboundary and flow resource, taking up- and downstream communities into consideration, is not yet apparent in the governance for various reasons. These issues are likely to stem from the hydro-politically insignificant role of the Baro-Akobo basin in Ethiopia, as other basins, such as the Abay/Blue Nile or the Omo rivers gain more attention both nationally and internationally.

The governance system of natural resource allocation for commercial agriculture does not end with signing a contract between the state and the private company. It requires continuous follow-up and monitoring of investment farms, arguably one of the most important phases of the whole process. The uncoordinated and unattained monitoring procedures are a potential factor that can negatively influence the SES in Gambella, leading to unpredicted interaction among Users and the Resource System.

It should be noted that the revenue from the land deals could positively shape the region. Interface between land and water resources within the resource allocation process is almost non-existent. Governance over land and water allocation falls under the responsibility of different authorities, and the benchmark size of land that determines which political scale is mandated differ too (water allocation for land size above 200 ha mandated to the Federal, while its 5000 ha in case of land allocation). However, it is not only the land deals that shape the SES in Gambella, and it is certainly not a one-way process between Authorities and Investors. All fields are in interaction with each other.

## **7. Concluding remarks**

In this thesis, I explored the governance system of land and water resource allocation for private agricultural investments in Ethiopia. By contextualizing the Authorities, Rules and processes of resource allocation into a broader framework, the Socio-Ecological System was presented through a case study of the Saudi Star rice farm, within the Gambella region of the Baro-Akobo river basin. The following questions were therefore explored: how does governance influence the entire SES, does it have positive or adverse effects and what are the ways in which it shapes the region?

I started off by introducing the concepts necessary to understand the relevance of the Ethiopian case internationally. I presented the various academic and activist debates surrounding the land deals, considering the perspective of the government, the investors, and

local communities. Special emphasis was put on water resources as the ‘blue gold’, which is an increasingly lucrative asset for investors. It was established that given the transboundary nature of water as a flow resource, the implications of its use and development spread beyond the actual territory of the irrigation site.

Political ecology provided a lens to point out those areas where power plays a role to create or reaffirm social inequalities. During the allocation and control of natural resources, the impacts are not always obvious. However, an observation of the distribution process shed light on several contributing factors shaping the entire socio-ecological system.

The Water governance analytical concept facilitated the discussion of the water management aspect, showing its disconnectedness from land resources. In the case of the Baro-Akobo river basin, the cross-scalar or transboundary perspective has not been incorporated within the local scale. The various mandates, capacities, strategies and rules that guide the actors within the governance system is found to be very influential for the state of the socio-ecological system it governs.

The main findings of the study point to the fact that the governance system used for managing the allocation of natural resources among private investors has an influential role in shaping a region’s socio-ecological system. In the Ethiopian context, the governing system of this process was observed and followed step by step. The complex web of authorities, mandates, and the common lack of institutional capacity proved to be a trigger for conflicts in the regions where agricultural investments are made.

In Gambella, a region struggling with resource-based conflicts for decades, the proper management of land and water access for the growing number of users is crucial. The elements necessary for an improved governance are however currently lacking in the region. Some of the problematic aspects of the governance system include the different connotations attributed to the resources for sale by authorities, investors, and local people, or the fact that these various interests are altogether not taken into consideration. Without a land use plan for the region, the interaction between the Resource System, its Units and the Users remains uncontrolled. The Water governance aspect of land investments was found to be immensely overlooked. Without an up-to-date Master Plan for a transboundary river basin where irrigation system development is on the agenda of private investors, conflicts are expected to arise on both a local and international scale. The procedures to monitor the activities are

currently uncoordinated, which is a contributing factor to results on the ground: losses of lives, forests, and possibly the cultural identity of Gambella communities.

The Saudi Star case shows that the institutional link between land and water resources within the resource allocation process is missing. Moreover, the mandates of the various authorities responsible for different stages of that process either overlap or remain unfulfilled due to lack of capacity.

As recommendation for future research on the region, or the issues related to land deals, the water governance aspect is definitely one that remains important to incorporate more and more into the academic and policy discussions. Giving more attention to further issues, such as the impacts on the local communities, gender, the cross-scalar institutional processes around the investments would be necessary. I conclude with an advice from one of the respondents who said that translating challenges into solutions would be a way towards the development of Ethiopia.



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## Appendices

### Appendix 1: Respondents

	Code	Institution	Resource/ Role	Gender (M/F)	Location	Date of Interview/dis cussion	Type of interv.
1	FG1	Federal	land	M	Addis A.	8.10.2013.	SI
2	FG2	Federal	land	M	Addis A.	8.10.2013.	SI
3	FG3	Federal	water	M	Addis A.	9.10.2013.	SI
4	FG4	Federal	water	M	Addis A.	9.10.2013.	SI
5	FG5	Federal	water	M	Addis A.	10.10.2013.	SI
6	FG6	Federal	water	M	Addis A.	15.01.2014.	SI
7	FG7	Federal	water	M	Addis A.	15.01.2014.	SI
8	FG8	Federal	water	F	Gambella	25.01.2014.	SI
9	FG9	Federal	wildlife	M	Gambella	27.01.2014.	SI
10	RG1	Regional	President	M	Gambella	27.01.2014.	SI
11	RG2	Regional	land	M	Gambella	28.01.2014.	SI
12	RG3	Regional	land	M	Gambella	29.01.2014.	SI
13	RG4	Regional	land	M	Gambella	29.01.2014.	SI
14	RG5	Regional	w & l	M	Gambella	30.01.2014.	SI
15	RG6	Regional	Villagiz.	M	Gambella	31.01.2014.	SI
16	RG7	Regional	environm.	M	Gambella	23.01.2014.	SI
17	RG8	Regional	water	M	Gambella	29.01.2014.	SI
18	RG9	Regional	land	M	Gambella	28.01.2014.	SI
19	RG10	Regional	land	M	Gambella	27.01.2014.	SI
20	WG1	Woreda	w & l	M	Abobo	28.01.2014.	SI
21	WG2	Woreda	w & l	M	Abobo	28.01.2014.	SI
22	R1	Researcher	w & l	M	Addis A.	15.02.2014.	SI
23	R2	Researcher	w & l	M	Addis A.	9.10.2013.	SI
24	R3	Researcher	land	M	Addis A.	11.10.2013.	SI
25	R4	Researcher	water	M	Gambella	25.01.2014.	SI
26	R5	Researcher	w & l	M	Bahir Dar	06.02.2014.	SI
27	R6	Researcher	w & l	F	Skype	17.06.2014	SI
28	I1	Investor	w & l	M	Addis A.	08.10.2013.	SI
29	I2	Investor	w & l	M	Addis A.	09.10.2013.	SI
30	I3	Investor	w & l	M	Addis A.	09.10.2013.	SI
31	I4	Investor	w & l	M	Addis A.	10.10.2013.	SI
32	I5	Investor	w & l	M	Gambella	29.11.2013.	SI
33	I6	Investor	w & l	M	Gambella	30.11.2013.	SI
34	I7	Investor	w & l	M	Gambella	28.01.2014.	SI
35	LF	farmer	w & l	M	Abobo	28.01.2014.	SI
36	NGO1	NGO	w, l, wildl	M	Gambella	27.01.2014.	SI
37	NGO2	NGO	humanit.	M	Gambella	29.01.2014.	SI
38	NGO3	NGO	humanit.	M	Gambella	29.01.2014.	SI

### **Research schedule**

07.10.2013 – 25.11.2013	Addis Ababa 1. phase
27.11.2013 - 04.12.2013	Gambella 1. visit
10.01.2014 – 23.01.2014	Addis Ababa 2. phase
24.01.2014 - 04.02.2014	Gambella 2. visit
11.02.2014 - 19.02.2014	Addis Ababa 3. phase

### **Appendix 2: Interview guides**

Thank you very much for taking the time to talk to me. I am interested in the process of land and water resource allocation for large-scale agricultural investment. My questions will be about your work in relation to this process. You will remain anonymous, so you can speak freely. Your answers will support my Master's Thesis in International Development Program at Lund University, Sweden.

Date:

Place:

Time:

Translator, gatekeeper present:.

#### About the Respondent:

Name:

Organization:

Resources they focus on:

Position in the organization:

Phone number (if possible):

### **Authorities**

#### Water-related questions

- Who is responsible for water management within the sub-basin (organigram of the organization, number of staff (educational level), logistics).
- What information on the basin and water availability is available within the basin organization (number of gauge stations, their location, years of data available, whether data is collected on annual seasonal, monthly, decadal or even smaller time unit).
- What records exist on water users within the basin within the water organization (what type of records, on users, withdrawal points, method of withdrawal, water licenses, irrigated area, crops – by year, season etc).
- What is the procedure for water allocations to the new FDI in agriculture (different steps and documents the applicant has to submit (request on annual basis – since the FDI might be implemented in different stages or else), what happens with these documents, how are these documents evaluated within the basin perspective, before the water license is granted)?
- After the license is granted, what procedures are in place to control that the amount specified within the license agreement is taken (who is responsible for metering withdrawal, how is withdrawal metered (either volume of water or estimated by



operation of pump, or time of opened gate, etc), what records are kept and who keeps them, how are these records verified.

- What logistical and staff capacity has the water organization to control abstraction and to verify records of the users?
- What changes have occurred within the organization since FDI have started within the basin (different records kept, new staff, new gauging stations, increased logistics, - would be nice to see this according to different year)?

### **Overview of important issues, land and water resources**

- What are the most important land and water related problems in the Baro-Akobo sub-basin?
- What are the major water management related problems in the sub-basin?
- What are the envisaged land and water development interventions in the sub-basin?
- Promising policy and institutional change interventions?
- What are the needs for institution change?

### **Key organizations/institutions in the region**

- What are the key formal organizations involved in land and water management?
- What is their mandate, role, mission?
- How would you describe the influence of the org (low-medium-high/negative-neutral-positive)?
- Problems in organizational arrangement of these orgs?
- What are the key informal organizations involved in land and water management?
- What are the community-level institutions and their role in higher-level policies and institutions?
- Problems in organizational arrangement?
- Evolution of institutions to address problems of conflict over water and land resources in the sub-basin (including pastoralist, fisheries, aquaculture)
- Which institutions can play key roles in generation and dissemination of knowledge?
- Factors affecting organizational performance in both formal/informal?

### **Policy analysis**

- Local and regional policies that apply to your work
- Which are the Formal laws and procedures
- Informal rules and practices
- Evolution of integrated water and land resource management approaches and policies
- Internal rules of organizations
- Administration: org at the policy and org at the implementation level
- What is the interest related to the policy?
- Your position for or against the policy?
- Ability to influence policy outcomes?
- What are the difference between written policy and practice, why?
- What are the gaps (if any) in the policy or legislative framework?
- The extent to which key policies are actually working in practice on the ground

### Appendix 3: Land Investment Agency data

Dataset according to Ethiopian Calendar (EC) 1985-1999: 34 investors Gambella Investment data contains:

- Nr. File Nr. Permit Nr.
- Date of Permit, Year of Permit in Ethiopian Calendar, Year of Permit in EU Calendar
- Licensing office
- Name of Investor, Country of origin, phone, post nr., FAX, email,
- Investment Activity, region of investment, zone of investment, town of investment, woreda of investment, capital in Birr (when they arrive),
- SRC from own money, SRC from loan
- land size required, investment status, date of status change in EC calendar
- Terminated, Date of Termination in EC
- Permanent Employment, Temporary Employment

### Appendix 4: Investors Data

<b>Gambella Investment Agency</b>							
<b>Investors Data</b>							
	No Of Investors	Item Of Permit			Capital	Job Opportunity	
		Agriculture	Industry	Service		Permanent EMPLOYEMENT	Temporary EMPLOYEMENT
<b>From 1985-1999</b>	34	24	6	4	25923427	1506	2902
<b>2000</b>	53	44	0	9	569297750	2782	15488
2001	196	169	3	24	956990000	9107	71728
2002	210	199	1	10	1556935250	11322	24632
2003	271	242	5	24	1643620762	8065	47764
2004	53	32	4	17	373301820	963	2640
2005	14	5	3	6	804149807	2267	5056
<b>From 1/11/2005-30/4/2006</b>	29	17	3	9	599941189.69	2101	7155
<b>Total</b>	<b>860</b>	<b>732</b>	<b>25</b>	<b>103</b>	<b>6530160006</b>	<b>38113</b>	<b>177365</b>