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Citation:

Azadi, H.; Burkart, S.; Moghaddam, S.M.; Mahmoudi, H.; Janečková, K.; Sklenička, P.; Ho, P.; Teklemariam, D.; Nadiri, J. (2021) Famine in the Horn of Africa: Understanding Institutional Arrangements in Land Tenure Systems. Food Reviews International. Online first paper (15 March 2021). 17 p. ISSN: 1525-6103

Publisher's DOI:
https://doi.org/10.1080/87559129.2021.1888974

Access through CIAT Research Online:
TBD

Famine in the Horn of Africa: Understanding Institutional Arrangements in Land Tenure Systems

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Abstract

Natural calamities such as drought, famine, and climate change have collided to create a humanitarian crisis. For the Horn of Africa (HoA), famine is among the factors that have caused the worst historical damages to the individual countries. Man-made calamities such as decentralized agricultural, pastoral activities and forest clearing are also root causes for the damage. Institutional arrangements (IAs) on land tenure systems and agricultural land conversion (ALC) as a part of this problem will be analyzed in this paper. Poor IAs on land are considered the main cause of insecure land tenure which diminishes the productivity of agriculture in this region, and this, specifically in times of drought, exacerbates famine. Accordingly, the paper explores the idea that to what extent poor IAs on land tenure systems can explain the famine in the HoA. IAs on land comprises two main functions: land quality management and regulation and standard-setting for land utilization. The types of IAs for land

often differ. The "optimal" arrangement depends on political, economic, social, climatic, geographical, and technical factors that together form a complex system of IAs.

Keywords: African famine; Land governance; Land tenure security; Land grabbing; Management and organization.

1. Introduction

1.1. Famine

Famine is universal, and extreme hunger results in drastic bodyweight loss and morbidity increase. Hunger is a cycle of socio-economic crises, increasingly prolonged over time, consisting of the gradual decline of the most vulnerable groups and the degradation of their livelihood structures, with an increase in mass hunger [1,2]. Although famine remains vulnerable to conflict in the poorest countries, issues of malnutrition spread far more widely. Equitable growth and poverty eradication are at the core of the fight against chronic malnutrition but attempts to tackle starvation include a host of political obstacles, including the end of civil wars in which soldiers use hunger as a weapon of war. As the essence of hunger shifts, so do the steps are needed to tackle it [3]. Famine occurs in populations vulnerable to food insecurity, and sometimes, a minor triggering event that drives them from poverty to hunger is experienced. As this increased vulnerability results from social processes, resorting to stress or adaptive mechanisms typically leads to even higher long-term vulnerability and decreases hungry people's ability to cope with the next disaster [2].

1.2. Famine in the Horn of Africa (HoA)

Data shows [1] that there has been insufficient progress in reducing hunger in Africa, particularly in the sub-Saharan region. Nevertheless, significant improvements have been made, and the prevalence of undernutrition has been reduced from 33.3% in the early 1990s to 23.8% by 2014. In total, the number of undernourished people in the sub-Saharan area is estimated at 214.1 million in 2012–14. This rate of increase can mainly be attributed to Sudan's inclusion in the North African region [4-6].

Drought, famine, and climate change have caused the Horn of Africa (HoA) to create a humanitarian crisis [7]. Providing a broad and clear image of such crises can play a key role in the management of their impacts and outcomes. In this context, the role of climate change in contributing to the situation is also important to examine. In this regard, re-examining the evidence is very important to provide a better picture of the links between climate change, drought, hunger, and migration. For the HoA, famine is among the factors that have caused the worst historical damages to the individual countries. While food shortages in this area are

relatively common, formal declarations of famine are unusual. However, Ethiopia, for example, is more known for its famine history than its many historical contributions to world civilization like the Axumite civilization. The earliest famine in Ethiopia was recorded for the ninth century. Regretfully, the HoA is not the only region today that has not triggered early warnings. During 2012, 4.7 million people in South Sudan were expected to be food insecure, and conditions deteriorate daily [8].

Not only Ethiopia, but also the other countries of the HoA (Djibouti, Sudan, South Sudan, Eritrea, Kenya, Uganda, and Somalia) have suffered from famine throughout their histories. According to FAO (2011) [9], more than 40% of the region's population (i.e., 40% of 160 million) is living in areas prone to extreme food shortage. The world is witnessing an ongoing famine story in these countries. While global attention has been increasingly focused on hunger, poverty, and global food distribution inequality over the past 50 years [10], there seems to be no solution to this dilemma that has affected millions of people. Even when predicted (e.g., through an early warning system), a drought can cause the deaths of many thousand humans and animals. To answer the research question "Why is it so difficult to fulfil the basic needs of these people," institutional arrangements (IAs) on land tenure systems will be analyzed as a part of this problem in this paper. The authors of this paper consider poor IAs on land to be the main cause of insecure land tenure, which diminishes the productivity of agriculture in the HoA, and, specifically in times of drought, exacerbates famine. Accordingly, the paper explores the idea that to what extent poor IAs on land tenure systems can *explain* famine in the HoA. This paper is divided into the following sections. First, the necessary definitions will be outlined. Second, the causes for poor IAs on land will be given, and third, the link between poorly functioning IAs and famine will be laid out, followed by a description of potential solutions.

2. Methodology

This study performed a comprehensive literature review to investigate the cross-cutting issues surrounding institutional arrangements and describe connections between poor institutional arrangements and famine (Table 1). A broad search for relevant papers and reports on land tenure and famine (mainly African famine) took place between 1979 and 2018 using major databases including Google Scholar, Web of Science, and Science Direct. The following five keywords were used: 1) Institutional arrangements, 2) Horn of Africa, 3) Land governance, 3) Food security, 4) Agricultural land conversion, and 5) Land tenure. In addition, other relevant papers cited in this article have been reviewed to support evidence generated in similar previous studies. The current study focused solely on English-written research papers

published in peer-reviewed international journals. This paper also looked at the research findings identifying relevant issues related to the above five keywords while increasing the initial large number of papers produced from different sources. More precisely, as summarized in Figure 1, the following specific approaches will be utilized in a framework of four steps in order to achieve the study's goal:

a) Definition of relevant concepts: It was important to lay out the definitions of some concepts that are relevant to the subject of the paper. These main terms were Institutional Arrangements, Land Governance, Land Tenure, and Food Security.

b) Exploring the causes of poor IAs: Since poor IAs can affect land tenure systems, it is necessary to explore the causes of poor IAs in the HoA.

c) Layout the links between poorly functioning IAs and famine: Famine is the result of many variables. The purpose of this step is to explain the link between poor institutional arrangements and famine.

d) Description of potential solutions: Considering the knowledge gained in the previous steps, a description of potential solutions for famine in the HoA is developed.

[Insert Table 1]

[Insert Figure 1]

3. Definitions and concepts

It is important to lay out the definitions of some concepts relevant to this paper. To maintain focus, the terms Institutional Arrangements, Land Governance, Land Tenure, and Food Security will be described in the following section.

3.1. Institutional Arrangements (IAs)

According to Eaton et al. (2007) [11], IAs are about a set of rules or agreements governing the activities of a specific group of individuals pursuing a specific goal. Geels (2004) and Klijn and Teisman (2000)[13] view IAs as various formal or informal schemes and coalitions for joint action and intergovernmental collaboration, from the public-private partnership and contracting structures to organizational networking and policy frameworks. Many researchers [14-17] have endorsed the significant meaning of good functioning institutions for the development of a country. Shirley (2005) [18] even states that poor institutions are the roots of under-development. She uses the North concept of institutions: "humane restrictions that structure human interactions" including formal restrictions such as constitutions and laws and informal restrictions such as regulations, conventions, and codes of conduct [19].

To coup up challenges of development, Shirley states that countries need an institutional framework that supports a market economy which includes two types of institutions. Firstly,

institutions that encourage lower transaction cost and promote trust. Secondly, institutions that can stimulate the state and other influential actors in order to protect private property and personal rights. Property rights are threatened by either too weak or too strong states. Therefore, people and organizations will refrain from investment in knowledge, skills, or assets, because property rights are insecure and transaction costs are high. Following, a lack of investment will lead to low production, innovation, and productivity. It is also believed that one of the reasons why states are still economically underdeveloped is that powerful actors want to preserve the current institutions due to certain personal interests. In addition, the society supports and sustains the status quo by their beliefs and habits [20,21].

Regarding the HoA, it is perceived that producers may have difficulties in accessing inputs and selling commodities. Moreover, purchasers and processors may have difficulties in obtaining sufficient, timely, and qualitative supplies which might be due to a high illiteracy rate in the region [22]. Eatona et al. (2007) [11] explain why producer organizations are needed:

- It is not necessary for private companies to act in the interests of farmers.
- Private firms may not be willing to make specific investments in relation to a group of farmers.
- Private enterprises may use their market power (e.g., if there is an oligopolistic or monopolistic market structure) to increase their share of economic profits.
- Private firms cannot track the farmer's compliance with the agreement, giving the farmer room for opportunistic behavior.
- Private undertakings may not be willing to insure against specific risks.

3.2. The link between institutions and wealth and famine

Institutions typically use the term property rights (which vary in their position in legal doctrine) to describe an actor's right to use valuable assets. An actor's property rights are expressed in both formal rules as well as social norms and practices, and their economic importance depends on how well other members of the society understand and uphold property rights. External control is based on the property rights of an actor [9]. The actors themselves establish internal control by means of various measures to gain control of scarce resources, including supervision, protection, private guard recruitment, and reputation tests.

An economic transaction cost is an approach to corporate financial clarification. It takes into account the relative merits of performing transactions within organizations and using markets between various actors (organizations) [23]. This takes into consideration the minimal reason, knowledge problems, contract costs, and opportunism.

Institutions are the rules of the game in a society or, more formally, the humanly constructed limitations that affect people's interaction. Institutions are set up to reduce uncertainty by providing daily life with a structure. However, as we analyze the costs arising from the institutional framework, we see that they are not only the product of that framework but also the institutions that have contributed to the development at the end [19].

The concept of social welfare is at the root of the inequality problem. Social welfare is, according to the utilitarian approach, the sum of human welfare. Equal opportunities not only entail the distribution of jobs on a merit basis but also allow everyone to have equal chances of obtaining those credentials that will reflect merit, in terms of education, health, etc. Empirically, an insightful description of America's inequality is given by Sokoloff and Engerman (2000) [24], who suggest a historically established institutional explanation at the root of colonial endowment factors in order to explain income inequality, human capital, and political power. The political institutions are important to prevent famine and reduce inequality, or at least to ensure lower levels of inequality. Nevertheless, with regard to the form of institutions that influence famine mortality and poverty, a significant distinction should be made. This distinction includes “control of corruption” and “government effectiveness” of the land governance indicators.

3.3. Land Governance

Land management is the second important term. “Land governance concerns the laws, processes, and mechanisms by which decisions on access to and use of land are made, how decisions are implemented and enforced, and how conflicting land interests are handled” [25].

Land governance can either support the development or create conflict among people and institutions. Good and enforceable land governance offers a required development structure and essential protection against many forms of corruption [26]. On the other hand, weak land governance opens doors for corruption in the land decision processes and also creates a basis for other corruption [9]. As reported by FAO (2011) [9], Transparency International (TI) shows that there is a very strong correlation between rates of land-based corruption and overall corruption in a country's public sector. In other words, land governance is synonymous with IAs.

Generally, IAs on land and land governance are interrelated. Strong land governance should support IAs on land that facilitates development through securing rights and interests related to land. If the land governance system focuses on corruption like bribery, it could weaken the IAs. Likewise, if IAs are weak and based on corruption or manipulation, they might affect land governance. For example, the Land Administration and Land Use Development Project

(ELALUDEP) aimed to describe IAs in Ethiopia, since Ethiopia is among the countries facing challenges regarding its land sector that include policy and legal frameworks, institutional arrangements, and technical and financial aspects [25]. Kuusaana and Gerber (2015) [26] found that synergies exist between institutions of land and changes in their impact on land markets, as well as in ensuring agricultural jobs, capital spills, local economic development, and infrastructural improvements in Ghana [27].

3.4. Land Tenure

The concepts of land tenure and food safety are also important for this research [9]. The following definition of land tenure is used: "Land tenure is the relationship, whether legally or customarily defined, with respect to land, between individuals or groups. Land tenure is an institution, i.e., rules for company-invented behavior regulation". The relevance of this definition is that land tenure is seen as an institution. Maxwell and Wiebe (1999) [28] also refer to land tenure as an institution: "Land tenure is the system of rights and institutions governing the land and other resources access and use." In fact, land tenure is a vast and complex system with a large variation and complexity [29-33]. Delville (2007) [32] and Holden et al. (2016) [33] explained that the linkage between tenure security and food security is complex. They argued that the political relevance of the connections between land access, tenure security, and food security is enhanced by increasing land scarcity and high climate risks. Property rights are another important link in the discussion of land tenure. For example, the interaction between land rights and food security can be described as follows: the result of weak land rights is tenure insecurity that leads to poor land management. Poor land management can have many negative effects such as land degradation and low land productivity resulting in food insecurity [34]. Land tenure and property rights affect the use of technologies for the management of agricultural and natural resources.

Guaranteed property rights provide farmers with sufficient incentives to increase their efficiency in productivity and can contribute to sustainability in the environment. It is reasonable that farmers do not feel an emotional connection to the land they cultivate without property rights, do not invest in land growth and do not use the inputs effectively. Securing these land rights can be seen as the basis for food security. Land reform and registration of private property can actually lead to uncertainty and conflict over land rights. Ubink et al. (2009) [35] outline and compare different studies on the relationship between the registration of land rights and the productivity of the land. They showed that a positive relationship between private property, security, investment, and productivity does exist. However, especially in Africa, this significant relationship was not found. Nevertheles, Legesse et al. (2018) [36] found

that land security is one of the most important factors affecting the decision of farmers to implement reforestation intervention in Ethiopia.

According to the outlined studies by Legesse et al. (2018) [36], only a few lands have been registered, because registration programs were 'slow, expensive, difficult to keep up-to-date, and hard for poor people to access' [36,37]. Moreover, the operational distribution of land has long been known to affect the output in unmechanized agriculture, which means that a highly unequal distribution of land reduces productivity. While the ability to make profitable use of land depends on policies in areas outside land policies that may warrant separate attention, secure and well-defined land rights are vital to property ownership, efficient growth, and the functioning of market factors.

3.5. Food Security

Food security is described by Maxwell (1996, p.155) [38] as 'state of secure and sustainable access to adequate food for active and healthy living'. The definition of food security seems simple but it is not. There are over 200 definitions in published writings [39]. As a working definition, FAO (2002)[39] describes food security as accomplished when all people have access to appropriate, safe, and nutritious foods that meet their dietary requirements and food preferences for active and balanced living at all times, and food insecurity when people lack sufficient physical, social, or economic access to food. IAs, land governance and land tenure are interrelated, and these three can affect food security positively or negatively. For people to achieve food security, there should be available land and assured land tenure supported by IAs. In other words, there has to be access to land and consent on how that land can be accessed and used for agricultural purposes. Finally, this should be supported by an effective and consistent land governance system without corruption, which means there should be a rightful decision to implement and follow-up on the agreed IAs. In such cases, food security can be achieved. Otherwise, weak IAs can lead to food insecurity. Land administration is generally considered as an enabler of food security [40,41]. The current African land tenure challenges are the result of the administrative and resource right systems developed during the colonial period [42]. Therefore, it is important to understand the land-use systems and the processes of transformation in order to find the links between land tenure, food security, and sustainable agriculture [43].

3.6. Agricultural land conversion (ALC)

Land conversion is generally defined as a process in which land is converted from one form of use to another. The transition takes place in most reported cases from agricultural to urban use [44-46]. The conversion of land is often linked with land-uses policies, which can lead to

issues such as dispossession, land loss, and food insecurity. This is not the only phenomenon that is inevitable in economic development and population growth [47]. However, ALC is considered as the most important factor among different types of land conversion [48]. The increasing demand for non-agricultural uses and the lack of land to meet these requirements have resulted in increasing numbers of agricultural land being converted into non-agricultural uses. Agricultural land demand is largely dependent on agricultural land prices. Demand will rise if agricultural land prices are low, and if agricultural land prices are high, demand will be lower. Thus, there is an inverse relationship between demand and the price of agricultural land [49]. Farmers are potential suppliers of agricultural land in the context of conversion and, at the same time, the farmer himself is a claimant of his land because agricultural land provides usefulness in addition to agricultural production and the income from it. Agricultural land is therefore essential to poor people's lives in rural areas as it is their main source of food, shelter, income, and social equity.

In India, for example, cultivable land is showing a declining trend. Data show that as many as 20 states reported a decrease of 790 000 hectares in cultivable land between 2007-08 and 2010-11. The decrease is mainly due to the diversion of cultivated land for non-agricultural purposes, including construction, industry, and other development activities, which will have a long-term impact on food security, with the country requiring more and more food grains to support its growing population [50]. According to a study by Ashok (2012) [51], India is one of 29 countries with the highest levels of hunger and poorly fed women. Likewise, in the case of China, another fastest-growing economy in the world is facing severe food insecurity. The main reason for this is the non-agricultural conversion of agricultural land. Grown land conversion has emerged as a critical political and security issue, largely due to concerns about food and the environment [52].

Several studies [53,54] have indicated that the main causes of ALC are population growth, economic growth, and urban sprawl, including the development of real estate and infrastructure, and finally the speculative activity of agricultural land on the demand side of ALC. On the supply side, low returns and profitability, lack of inputs, and variations in land size are driving farmers to sell or convert agricultural land for non-agricultural purposes. This conversion causes both agricultural land and agricultural output to shrink. In the long run, all these factors pose a threat to food security and are the main causes of famine [54]. Because of its dependence on climate factors, agriculture is known to be the sector most affected by drought. Drought can have a negative impact on the agricultural sector, resulting in drastic ALC. Countries in East Asia, North America, and Europe lost all cultivated land due to climate

threats. For example, climate incidents, including freezes and droughts, have had a negative impact on the U.S. agricultural sector and have resulted in the conversion of land use in this country [55].

Uncontrolled ALC has a major impact on the environment in general and, in particular, on agricultural products [47]. ALC is also the result of numerous biophysical processes and drivers that operate on a variety of scales (both temporal and spatial). Considerations about the potential impacts of climate variability on agriculture in the last decade have significantly changed research interests [56].

4. Discussion

4.1. The experiences of HoA of agricultural land conversion

The southern part of HoA has a civil war with Ethiopia, Eritrea, and Somalia, and many of the people of Rwanda have crossed the borders to seek refuge in Tanzania and Uganda. In combination with the severe climate, the effects of war placed increased pressure on the land and had a heavy impact through deforestation. Fires are a big issue. Desertification has increased, particularly in Sudan, where 13 of its 26 countries have been declared "affected by desertification" by the United Nations Convention to Combat Desertification (Table 2) [57].

[Insert Table 2]

As a result of political conflict and persistent instability, people are fleeing their homes, clearing forests, and starting a livelihood in new lands. Then, there will be less food, food shortage, or price growth in regions which are processed. Conflicts have not only damaged societies but, in each of these HoA countries, have also destroyed water systems. Conflict, however, is not the only reason people flee their homes. The researchers learned that pastoral people flee their homes for beliefs and rituals in the southern part of Ethiopia. For instance, if somebody is dead or there is another wind, they are going to flee considering the initial place as haunted. Conflicts in each country have generally damaged or destroyed water and sanitation systems [55].

Although all conflicts in HoA (e.g., inter-state conflicts in 1998 called Ethiopian-Eritrean) have their own characteristics, they often have a common characteristic, i.e., control over natural resources is a source of conflict [58]. Land and water are key factors in the economic activities of these societal groups. Manipulation of "normal" livelihood competition has often been used in order to achieve, maintain, or expand political power with political intent. There are many examples in the region, but resource disputes are sometimes more apparent than others because of the root causes of the conflict [5].

Apart from the heterogeneity in landscapes, cultures, and political systems, the HoA is unstable with its land-use conversion. Land-use conversion in the region has changed following the political transformations such as independence from colonialism, wars, socialism policies, developmental state policies, and neo-liberalism policies. Land-use conversion occurs suddenly following a change in political policies. For example, when Ethiopia and Eritrea were considered as two independent countries in the political transformation from monarchy to military, a huge land use conversion occurred. The land-use conversion which allowed farmers to take land from the landlords known as "land to the tenant" was initially done for distributive justice, but it also created social crises because it was not based on the consent of the landlords. The countries most impacted were the developing countries in Africa and Asia. The HoA experienced droughts 6 years in a row over the first 17 years of the twenty-first century, which resulted in very severe food shortages and hunger [55].

4.2. Causes and consequences of weak institutional arrangements

The food system perspective, although increasingly embracing, has been poorly reflected in institutional terms [59]. The HoA is known for its weak governments, war-torn countries, and high corruption levels. These factors can influence the stability of the region. Migration is another problem in these countries [60]. Environmental damages happen not only due to disasters and war but also due to migration [60]. But all of this happens because of unclear policies and individual interests. Unclear policies, individual interests, and high illiteracy rate create room for weak IAs. Policies that are not clear and are interpretable in different ways are open for manipulation, and illiterate people might not calculate well the advantages and disadvantages of IAs. This might affect their food security indirectly. This way there are high possibilities that weak IAs, which only fulfil the interest of few, will be developed. It is likely that weak IAs cause corruption in land governance.

There is a broad consensus that the state in HoA is suffering from a lack of institutionalization which is understood as 'the objective and subjective penetration of society' by existing state institutions. As far as institutionalization is concerned, therefore, the dual institutions (traditional and modern) have not yet found a way to serve the state-building process in terms of socio-economic condition and natural resource management [61]. The state, which is dominated by enforced modern institutions, has not been able to dominate traditional or informal institutions primarily in rural areas nor has it been able to integrate traditional institutions in order to foster a viable and functional state [20]. Basically, as long as the HoA state could not find a balance for the IAs, there will be a question of governance and perpetual conflict within the region. Proper IAs and organization mitigate famine in HoA by

decentralizing decision-making; promoting the building of a state by building unity among divided ethnic identities; Reducing natural-resource disputes and protecting the interests of disadvantaged parts of society (including farmers and pastoralists), respecting and safeguarding customary land rights; and fostering gender equality through the revision of certain conventional values [28]. The HoA state's dysfunction is due to the large part to the existence of two opposing hierarchical governance structures. The main center is in the urban sphere and is embodied by a new post-colonial state while the other is represented by rural pastoral communities [62].

With insufficient IAs to deal with HoA's economic crisis, efforts to stabilize the economic environment have led to yet another issue of rising interest rates and conflicts. The HoA countries are struggling with inflation, rising interest rates and unpredictable exchange rates. All these problems have negatively impacted economic growth and resulted in unemployment, especially among young people, which exacerbates the economic situation [62]. When the full focus of the government is to resolve conflicts, it undertakes drought mitigation programs, financial, or development programs. Additionally, the government normally spends all the available money on the war, which often prevents it from addressing people's economic needs. A circumstance like that leads to famine: Poor communities are especially susceptible to drought and famine because they lack the capacity to respond to natural disasters [63]. In a working paper of the FAO [9], land governance and corruption are linked. Just like overall governance, when land governance is functioning, corruption is low, and the other way around. High corruption levels have a negative impact on development, Foreign Direct Investment (FDI), and crop yields. In addition, instability can also lead to weak land governance and corruption. It has to be acknowledged that administratively, the HoA has never been stable. War and civil war are always present and capable of great outrage. This instability shows a growing level (e.g., conflict in South Sudan and terrorist attacks of Al-Shabaab in Somalia), a further destabilization influenced by the Arabic peninsula, a continuous risk of radicalization of the Muslim population, and a sharp increase of migration flows to Europe. As the UNECA and the IGAD have reported, state-based conflicts in the HoA from 1989 to 2014 resulted in 554,808 deaths, 2,728,503 refugees, and about 6,575,230 internally displaced people (IDPs) [59-664]. This gives an ideal surface for corruption and manipulation, and weak IAs, that support only the interest of few people, can easily be developed and injected to the illiterate population in unstable states.

Land ownership is another factor for instabilities in the HoA. For example, the Ethiopian revolution from a monarchy to a military regime started with discussions on land ownership.

A prominent slogan of the military regime was “land to the tenant”, and for many rented houses, the ownership was transferred from the owners to the tenants. Huge farmland ownership was transferred to the farmers who worked on it. However, the evolving trends in African land markets show that land transfers to governments are increasing and seeking for food and fuel security comparing with private investors [9]. In addition, African governments already lease large areas of land traditionally used by small-scale farmers to transnational corporations for industrial farming or to plant trees as carbon sinks to earn carbon credits [65]. The land has emerged as a strategic commodity market for governments seeking medium- and long-term integration of land acquisition with national food demand. Land deals involved intergovernmental partnerships among states highlighted by mutual financial stakes, such as the Special Agreement on Agriculture and Investment between Syria and Sudan for a 50-year lease on 12,600 ha of land [9]. The Gulf States also received private investment. In addition, the EU and the US, Saudi Arabia, Qatar, and the United Arab Emirates have provided key sources of investment throughout the continent.

There are two main functions of land IAs: land quality management, and land use regulation and standard-setting. Each function needs an appropriate institutional arrangement for making the entire sub-sector work effectively. The regulatory role has in many cases proved to be a fairly simple part of the overall task. These factors can be classified into six groups of political, economic, social, climatic, geographical, and technical factors that together form a complex IA system (Figure 2). A prerequisite is that the organizational mandates and structures and the institutional environment are adequately matched. The preferred organizations may have a specific scale and scope, depending on local conditions. However, land governance and control of the land tenure system typically require a relationship with food security. Overall, specific functions can be enhanced in line with the need for food safety.

[Insert Figure 2]

4.3. Links of IAs and famine

On a larger scale, land grabbing is seen as one of the causes of decreasing food security. The term land-grabbing already has a negative connotation. It is usually seen as an activity where foreign investors buy land, in this case in the HoA, for their own benefit and at the cost of the local population. The main reason for land grabbing is crop-bio-fuel production. During the international food crisis in 2007 and the first and second quarter of 2008, land grabbing has spread because of high food prices and food shortages [66]. The crisis put the national food security back on the political agenda [67]. However, Azadi et al. (2013) [65] explain that it is crucial to evaluate which land deals can be considered “land grabbing”, and under which

conditions it would rather be a “development opportunity”. They also point out that agricultural outsourcing could be a win or loss for both sides (investor and investee).

According to Šváblová (2014) [28] the two issues have not been integrated into earlier studies. That is why they set the various links between land tenure and food security into a framework that captures the reciprocal effects. In the literature about land tenure and food security, one finds a rather positive link between the two topics, but this is based mostly on assumptions and is rarely empirically demonstrated [28]. Land and food security are dynamically connected in order to bring about structural changes in the distribution of resources among households through decision-making in production, marketing, consumption, and investment [32]. Property and access to land continue to be important determinants of household food security in poor countries facing high climate risks [32]. The land is not only a vital livelihood asset but is also essential for the enjoyment of various human rights, including the rights to life, food, housing, property, development, and self-determination [68]. The land is an important aspect of the livelihood of people living in Africa, though the rights of land ownership are not well arranged in most countries. This affects the productivity of the land because people are not willing to invest in the land they do not own. Not well-arranged property rights lower the productivity of the land. This leads to more food insecurity. Nevertheless, the land is seen as one of the best foreign sells. Why do states sell their land? Foreign Direct Investment (FDI) is seen as input for the economy. Most countries in Africa that are dependent on only a few products aim to diversify. They also see agriculture as a potential for employment and as a solution to the food security problem. For example, FDI can bring new technologies and infrastructure and help to boost agricultural productivity. Cotula et al. (2009) [69] refer to a report from UNCTAD[1] and state that governments in Africa have actively promoted foreign investments by improving the investment sector.

On the other side, why do foreign investors want to buy land? Food prices have long been stable. As a part of the answer, around 2007, the prices of food globally arose to a huge extent. This food price inflation has created an incentive for agricultural investment [70]. The rise of food prices has mainly been caused by the increasing demand for food and biofuels, as well as the climate changes, causing extreme climate conditions that negatively affected the harvests. As a consequence, this rise in food prices has led to a rise in land acquisition. However, acquiring land overseas for food has risks because of dependency. Though farmland acquisition

[1] UNCTAD World investment directory 2008. 43.

by foreign investors can be an opportunity for development (win-win), it can also be win-lose when the investors win, but host countries challenge damages or difficulties [71].

This win-lose situation can be called “land-grabbing”. In the discussions around land grabbing, there are a few ways of looking at it. First, the one that is dominating the current debate is led by international activist organizations. According to this debate, the foreign investments in land are exploitive and a threat to the host countries and their population. They are also a new form of agricultural neo-colonialism. Second, the liberal version is more optimistic and sees opportunities for the host countries. In this debate, the risks are being recognized, but it is being argued that both investors and host countries can benefit equally if they take into account good decision-making, better land administration, improved quality and transparency of land transactions, and greater institutional capacity of host countries [67]. A third approach looks at the structural changes in the agricultural sector. It is being debated that land deals will have a long-term effect on social aspects such as class division and social polarization. The focus of the debate should be on the relations of the political dynamics of land property and the changes in these relations. Land grabbing will lead to the (re)concentration of wealth and power.

In short, the causes for low productivity (part of the famine problem) on land includes several factors: 1) At the local level, the productivity of land is low because people do not invest in land because of poor property rights; 2) At the regional level, weak states have poor institutions and therefore make poor land deals; and 3) At the international level, the reason why foreign investors want to buy land is the rising food prices. The land that’s bought is not producing food for the local community.

4.4. Potential solutions and success or obstacle to the functioning of the organization

Land and human resources are the principal wealth of most countries in the HoA. People need land and related resources, such as forests and water for food production and basic livelihoods. Forest availability and use are important for poverty alleviation, food supply, equity, political stability, economic power, and sustainability [71,72]. Climate change, violent conflicts and natural disasters, population growth and migration, and demands for new sources of energy such as biofuels are increasingly affecting poor and vulnerable people's land rights. However, the quality of land management plays an important role in solving a number of tenure-related issues. In addition, the quality of land governance will also affect the outcome of reforms aimed at addressing these same issues. As a result, there are few efforts by development agencies and organizations to push for greater freedom of movement for their beneficiary populations as they fail to conceive of the willingness of citizens to follow risky

migration methods, which generates a fundamental conflict [73]. The ‘Alliance to End Africa's Famine’ is organizing and promoting the efforts of other actors who can raise, receive, accept and disburse funding more quickly and efficiently. The HoA banks are pursuing a multi-pronged, creative approach to mobilize additional non-conventional capital by private sector clients with capital complementing the usual channels of poverty alleviation emergency funding. This demonstrated to be a success during the Ebola crisis when business leaders met to discuss the vital role that the private sector could play in its contribution to solutions in times of crisis by drawing on their expertise to establish medium- and long-term solutions [74].

On the one hand, in conjunction with improvements in infrastructure, agricultural success has a strong effect on economic development, job rates, demand for other goods, food security and overall poverty reduction in the HoA countries. The agricultural potential of most of the countries affected has yet to be completely developed, with large quantities of arable land not yet being cultivated [72]. On the other hand, without legal land rights, vulnerable low-income households are unable to defend land claims and engage in land tenure disputes positively. The absence of land rights was a major factor in increasing land insecurity for the rural poor. Agricultural production depends on land and creates food. There is a link between agriculture, land, and food, which means that governments should deploy all possible resources to a sustainable agricultural sector, which requires sound land management [40,41]. As a regional organization, the Intergovernmental Authority on Development (IGAD) has consistently been engaged in efforts to resolve the prolonged conflict in HoA. IGAD Member States have devoted their money, time and energy to cope with this dispute which the international community generally neglects. The conflict has complicated the problem of power-sharing, resource distribution, land and real estate. It has also deepened the current clan divide, which has often been used by political elites to attain their limited interests at the expense of the national agenda [75]. Moreover, in order to recognize and address the needs of citizens over their entire lifetime, governments have no other choice than empowering and educating their citizens. Governments should empower their farmers through relevant policies. Furthermore, farmers should be assisted in learning how to make fruitful deals, being informed about what is going on in the world around, and how to make win-win IAs [15].

Several forces working in convergence or divergence have the potential to revolutionize the global political dynamics. The everyday reality of change has become so interconnected in this global age that even a slight change tends to affect us all. Therefore, the international community also needs to take actions at the macro level. Nowadays, for example, a major

challenge faced by small-holder farmers in Africa is the lack of accurate climate information to make better decisions to improve or stabilize productivity [76].

The international community should accept that it has a role to play in monitoring whether the rights of land users are effectively respected, as set out in the guidelines [77]. It means that the home states of foreign investors should, if capable, monitor the land deals [78]. Therefore, there is a proponent of the voluntary guidelines of the committee on World Food Security (CFS). On 11 May 2012, the Committee officially confirmed the Voluntary Guidelines on the 'Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security'. These guidelines are a way to eradicate hunger and poverty, promote sustainable development, and improve the environment. It is a framework actor that can be used to develop its own strategies, policies, legislation, and programs [79]. Unfortunately, these guidelines are not legally binding. Oxfam does agree with setting guidelines for the international community and support investments in agriculture. However, they do want the World Bank to freeze their investments until these guidelines are implemented. According to Oxfam, the World Bank, with its important position in the agricultural sector, should send out a stronger signal to land investors [80]. In response, the World Bank (2007) shares the concerns raised in the Oxfam report: "Our Land, Our Lives". But they disagree with Oxfam to immediately freeze all investments. The investments are needed to cover the rapidly rising demand for food [81].

5. Conclusions

Many factors contributed to the famine in 2011, such as drought and war. In this study, it was tried to find out to what extent poor IAs on land can explain famine in the HoA. There are several factors, such as high illiteracy rates of the farmers, individual interests, corruption, or manipulation, creating weak IAs. This, in turn, leads to weak governance which is a reason for instability and famine. Farmers' education on how to make deals and IAs for win-win solutions is vital for governments' strength and stability. One way or the other, the instability affects the world, and therefore, the international community's action is also an important aspect. Moreover, good land governance is needed to achieve equitable land distribution through which food security can be achieved for all parts of the population.

This paper reveals that the conversion of agricultural land, both on the demand and supply sides, poses a threat to food security and is considered as one of the main causes of famine. Securing land resource rights is important but not sufficient to boost living conditions and preserve forest resources and natural resource management. Rural communities must be able to manage the sustainability of their land and forests and enter the market for forest goods and

services in a competitive manner either on their own or in partnership. To do so, they need institutional and political support.

The importance of personalities and leadership rises in the absence of stable organizational and strong frameworks. Land administrations have strong leaders with a clear vision and enough personal and political authority to enforce realistic IAs. Land administrations are non-executive bodies, however, the final outcome of their work is entirely dependent on the decisions of the respective legislative and executive branches. The international community must also take action at the macro level in this respect.

The analysis of the background and functioning of the IAs and famine has shown some features typical of the current practice of HoA and its institutional aspects. The huge emphasis on the process's national ownership contrasts with the lack of human and financial resources. Financial support is needed to open the door for donors to influence the reform agenda. Similarly, global or foreign personnel who fill the capacity gap will affect the day-to-day functioning of organizations and the policy-making process significantly.

HoA's background evaluation in this study shows that conflicts over resources are closely linked to political volatility and economic fragility. In addition, a conflict is not only the result of the conflict but also its continuation. In recent years, clarity has not been taken for granted despite the consolidation of state and regional institutions. Governance structures for managing and allocating natural resources must still be improved in order to explore and distribute resources and wealth fairly. IAs structures like inter-state, state, regional, and local governance at all levels need to be further built to address issues such as land tenure, water rights, and conflict resolution. Institutions, including both formal and informal arrangements, can range from local to the global level and may give rise to compliance or resistance.

The findings imply that external actors and the international community can perform a far greater role than the one that can be seen at first sight. While respecting the views of domestic political elites, they still set the general framework that determines the mechanism of acquiring farmland by foreign investors. The HoA case clearly shows that the importance of a specific sector for the construction of stable IAs in countries does not interfere with the level of political participation. In order to recognize and address the needs of citizens over their entire lifetime, governments have no other choice than empowering and educating their citizens.

IAs, land governance and land tenure are interrelated, and these three can affect food security positively or negatively. There should be available land and assured land tenure supported by IAs for people to achieve food security. Reviewing IAs by considering the appropriate level of government may help to clarify the opportunities for vital cooperation

especially with respect to food security crises and famine and specifically in times of drought. In short, land and water are key to the growth of the HoA countries but can also be compounded by potential conflicts. It may be hard to achieve balance, but it is not impossible if the decision-making process takes into account the social, economic, environmental, and political dimensions. Political knowledge is an essential requirement and can only be achieved if the needs and concerns of local populations are taken into account.

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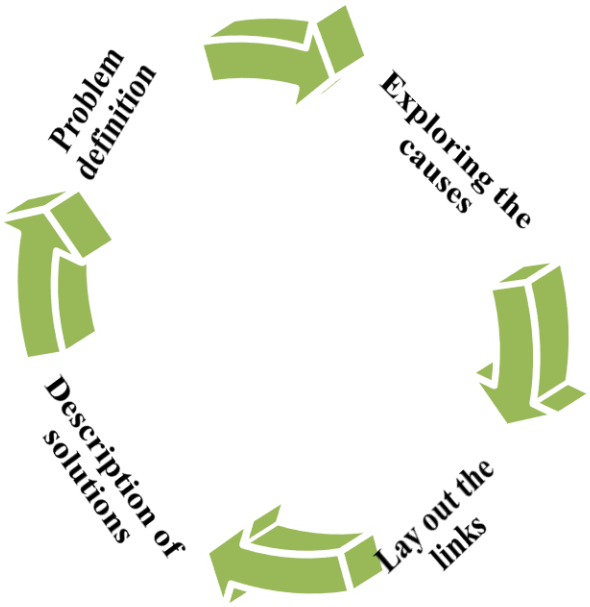

Figure 1. The structure of the study cycle.

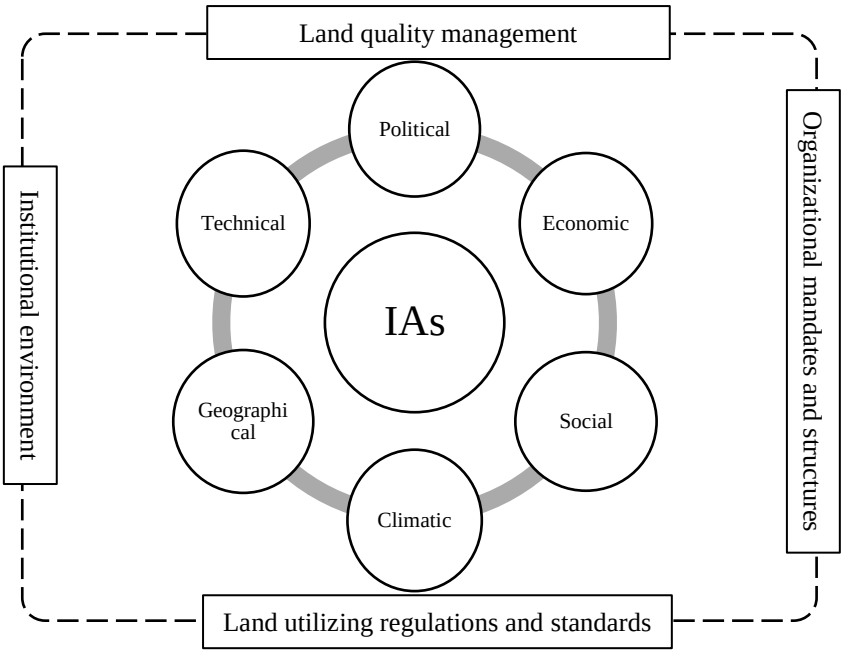

Figure 2. Factors forming a complex IA system.

Table 1. Steps, objectives, methodology, and outcomes of the study.

Steps	Objectives	Methodology	Outcomes
Problem definition	Defining the relevant concepts	Literature review	Gaining a comprehensive perspective
Exploring the causes	Exploring the causes of poor IAs	Literature review Expert panel discussions	Finding the main lacks and bottlenecks
Lay out the links	Describing the feasible solutions	Literature review Expert panel discussions	Describing linkages between poor IAs and famine
Description of solutions	Finding potential solutions	Literature review Expert panel discussions	Achieving proper solutions

Table 2. East Africa: forest resources and management

Country	Land area	Forest area 2000					Area change 1990-2000 (total forest)		Volume and above-ground biomass (total forest)		Forest under management plan	
		Natural forest	Forest plantation	Total forest			000 ha/ year	%	m3/ ha	t/ha	ha	%
	000 ha	000 ha	000 ha	000 ha	%	ha/ capital						
Djibouti	2 317	6	-	6	0.3	n.s.	n.s.	n.s.	21	46	-	-
Eritrea	11 759	1 563	22	1 585	13.5	0.4	-5	-0.3	23	32	-	-
Ethiopia	110 430	4 377	216	4 593	4.2	0.1	-40	-0.8	56	79	112	2
Kenya	56 915	16 865	232	17 096	30	0.6	-93	-0.5	35	48	120*	n.ap.
Somalia	62 734	7 512	3	7 515	12	0.8	-77	-1	18	26	-	-
Sudan	237 600	60 986	641	61 627	25.9	2.1	-959	-1.4	9	12	-	-
Uganda	19 964	4 147	43	4 190	21	0.2	-91	-2	133	163	-	-
United Republic of Tanzania	88 359	38 676	135	38 811	43.9	1.2	-91	-0.2	43	60	-	-
Total East Africa	590 078	134 132	1 291	135 423	23	0.7	-1 357	-1	28	38	-	-

Total Africa	2 978 394	641 830	8 036	649 866	21.8	0.8	-5 262	-0.8	72	109	-	-
TOTAL WORLD	13 063 900	3 682 722	186 733	3 869 455	29.6	0.6	-9 391	-0.2	100	109	-	-