

AFRICA HUNGER: LAND AND AGRICULTURAL INVESTMENT IN THE AFRICAN CONTINENT*

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In the first decade of this century, 203 million ha of land, in the world, were acquired by foreigners, 134 million of that are located in Africa. That "rush for land", promoted by the developed countries, or developing countries (including Brazil), is characterized by agricultural investment and the acquisition of land to satisfy food and energy demands. Seventy eight percent of the land acquired, were targeted for agricultural activities. The article presents the main discussions on investment in land and agricultural investment in Africa, its opportunities, potentials, risks and prospects. There is a "hoarding" of land and a "new form of colonization", or is it business opportunities and "agricultural development"? Within this framework, where the acquisition and the presence of large foreign investors is already a fact, it discusses the conflict between the traditional right of African societies and State law, which are subjected the people. Whose owns the land and what are their safeguards? It also discusses the aims of agricultural production, if it is for food or energy, and the models of agriculture, whether intensive or extensive, at stake among international investors, governments and local populations, warning of the risks and opportunities.

Keywords: investment in land; agricultural investment; international investment; Africa; rush for land.

FOME DE ÁFRICA: TERRA E INVESTIMENTO AGRÍCOLA NO CONTINENTE AFRICANO

Na primeira década do século XXI, em todo o mundo foram adquiridos, por estrangeiros, 203 milhões de hectares de terras, sendo 134 milhões localizados na África. Esta "corrida às terras", promovida por países desenvolvidos ou em desenvolvimento, entre os quais o Brasil, é caracterizada por investimento agrícola e pela aquisição de terras para satisfazer basicamente demandas alimentares ou energéticas. Das terras adquiridas, 78% foram direcionadas para atividades agrícolas. Este artigo traz as principais discussões sobre o investimento fundiário e agrícola na África, suas possibilidades, potencialidades, riscos e perspectivas. Existe um "açambarcamento" das terras e uma "nova forma de colonização", ou trata-se de oportunidades de negócios e de "desenvolvimento da agricultura"? Nesse quadro, em que a aquisição e a presença de grandes investidores estrangeiros é já um fato, discute-se à luz do conflito entre o direito tradicional das sociedades africanas e a lei de Estado, a que estão submetidas as populações. De quem são as terras e quais as garantias? Discutem-se também os objetivos da produção agrícola, se alimentar ou energética, e os modelos de agricultura, se intensiva ou extensiva, que estão em jogo entre os investidores internacionais, os governos e as populações locais, alertando os riscos e as oportunidades.

Palavras-chave: investimento fundiário; investimento agrícola; investimento internacional; África; corrida às terras.

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1 INTRODUCTION

The hunger in Africa is widely known by the general public and remains a recurring theme on the media when referring to that continent. At the same time, it is said (when not intuited by the common sense in Brazil) that the lands located at the south of the Sahara Desert are vast and not economically used in its majority, or that it is covered by forests inhabited by wild animals. With democratic governments of neoliberal orientation in almost every country, with growing insertions in the world's capital and product markets, Africa presented a significant growth in the first decade of the 21st Century. In a "(...) context of high prices and food crisis, international 'appropriations' of agricultural land, climate change and frequent warnings of degradation or shortage of agricultural land" (Roudart, 2010a), Africa becomes the locus of great global interest for agricultural and land investments.

The "rush for land"¹ is carried out by developed and developing countries to satisfy food and energy demands. This demand is a result of the population growth or the shortage of internal production – either by the absence of available land at its own country or by political choice – and it is a recent phenomenon. The land acquired by foreigners around the world, between 2000 and 2010, reached 203 million hectare (ha) – a surface equivalent to eight times the size of the United Kingdom – with Africa being its main target with 134 million (Anseeuw *et al.*, 2012a, p. 4-5). From all the land acquired by foreigners, 78% were directed for agricultural production. Although the gap between intention and reality must be taken into consideration, face the difference between the land announced as only acquired and the one really under exploitation. But this does not diminish the severity of the issue, nor the international investors' "hunger for Africa".

It seems that Brazil is preparing itself to enter this market vigorously. In 2011, the government of Mozambique offered Brazilian entrepreneurs a region corresponding to the size of three times the Brazilian state of *Sergipe*, to be leased for a long term under negotiable conditions. The former president Luiz Inácio Lula da Silva, in a speech at the Economic and Social Development National Bank (BNDES) in May 2012 emphasized the opportunities for Brazilian businesses that may result from the investments in Africa, in sectors such as infrastructure, oil and agribusiness (*Folha de S.Paulo*, 2012, p. A8).

1. Several concepts are employed to classify this phenomenon. The MAEE - Ministère des Affaires Étrangères et Européennes from França (MAEE, 2010), uses the expression "appropriation and concentration of land in large scale", separating the concept of "hoarding" (control and concentration). The World Bank prefers "massive acquisition of land", focusing on the mercantile nature of land; others employ "commercial pressure over land", a somewhat sectorial view, as the International Land Coalition; others still uses "disposal of agricultural assets", a financial conception, as the Centre D'Analyse Stratégique at the service of the French Prime Minister. Numerous researchers and non-governmental organizations (NGOs) use the expression "land hoarding". The dimension of what has been occurring and the debate around the theme justifies the use of the term "hoarding" o "appropriation and concentration of land in large scale".

The research undertaken by the Brazil-United States Chamber of Commerce (Ancham) listened to presidents, CEOs, vice-presidents and directors of 84 big industries of the sector, pointing out that

at least 25% of the interviewees responded that the African countries are at the center of their investment interests, commercial partnerships or international operations. The CEO of Ancham, Gabriel Rico, remembered that Africa was not even mentioned at their last report. According to him, the tendency is to increase the Brazilian interest in the continent (Agrovalor, 2012).

China, India, South Korea and the countries in the Pacific Gulf have been already establishing themselves in Africa for a few years.

Based on the studies *Les droits fonciers et la ruées sur les terres*, from Anseeuw *et al.* (2012b); *Couvertures et usages agricoles des terres à l'échelle mondiale: analyse et comparaison des bases de données sur la situation actuelle sur les évolutions possibles*, from Roudart (2010b); the articles from the 2011 dossier of the French magazine *Afrique Contemporaine* n. 237, the reports *Les appropriations de terres à grande échelle e Analyse du phénomène et propositions d'orientations do Comité Technique "Foncier et Développement"* (2009; 2010), the reports of the United Nations Food and Development Organization (FAO) and other international institutions, this article highlights the most relevant issues raised over the agricultural investments in Africa, its possibilities, potentialities, risks and perspectives. These are complex points that get contradictorily polarized, nevertheless the investment in agricultural land is considered as "hoarding" and treated as a "new form of colonization", as the South-African Minister of Agriculture Tina Joremat-Petersson states (*Le Monde*, edition of December 11-12, 2011), or as "agricultural development", as it is preferred by foreign investors, whose invested amounts cannot stop to grow.

In any case, far from being victims, the African countries, through the action of its governments, play a relevant role in the promotion and reception of these investments, which have been producing deep and irreversible impacts both environmentally and on its own populations, particularly the rural ones.

The purpose of this text is to contribute to the knowledge of what is occurring in terms of land and agricultural investment in the African continent, so that, in the future, the Brazilian presence finds more dignifying solidarity means and establishes a strategic partnership that goes beyond the current standards. Besides this introduction, the paper is divided in six sections: section 2, Rush to land: searching for what?; section 3, Available land: myth or reality?; section 4: Traditional law and State rights; section 5, Land and agricultural investment; section 6: Biofuels, and section 7, Final remarks.

2 RUSH FOR LAND: SEARCHING FOR WHAT?

One of the reasons explaining the flow of agricultural investment in African lands, far from the mere solidarity with the African people, is related to the world hunger and its perspective for 2050. The population growth evolution and family income resulted from the economic development influence on the global demand for food.

In 1950, the world's population was 3 billion people, it grew to 3.7 billion in 1970 and it closed as 6.8 billion in 2012. In 2050, the demographic projections of the United Nations – UN (2009) foresee this number to be between 8 and 11 billion individuals.² In 2002, 75% of the poor people living in developing countries reside in rural areas. Today, it is estimated that 1 billion people are undernourished, of which 75% are peasants from developing countries.

At the same time, FAO is constantly reminding that 1 billion individuals on Earth, the majority in Africa, do not eat enough to satisfy their hunger. The standard of living in the sub-Saharan Africa did not increase between 1975 and 2008, while it was multiplied by three in countries from South Asia, and by nine in East and Pacific Asia (Dabat, 2011).

The median projections for the world's population for 2050 are 9 billion people. On this hypothesis, the population growth for the next 40 years will be 2.3 billion individuals. Almost the totality of the world's population, between 6.7 and 7.9 billion, will live in developing countries (Vergez, 2011). And this population shall be fed.

On the other hand, the eventual growth of real income per person causes changes in feeding behavior, increasingly favoring the consumption of red meat. However, when we compare the regimes with or without meat, both protein calorie isolation regimes, the one containing meat requires more vegetable products, and the agricultural production for its satisfaction must be higher. Which is the same as saying that more meat requires more land for agriculture (Vergez, 2011, p.34). It is estimated³ that 1 billion tons of cereals and 200 billion tons more of meat must be produced every year, in global terms, in relationship to the amount produced in 2005.

The rate of population growth in the African continent between 1970 and 2006 was 157%,⁴ and the current population is 1 billion people, which may

2. The opening of this possibility is explained by the different hypothesis for the evolution of the main variables that control the size of the population. The ones concerning the evolution of fertility, mortality, and life expectancy rates and the impact of aids in the developing countries are no longer determinant. The probability that the global population is between 7.8 billion and 9.9 billion inhabitants in 2050 is 80%, which corresponds to a growth rate between 15% and 46% (Lutz, Sanderson and Scherbov, 2008; Vergez, 2011).

3. In order to satisfy a medium level of 3,130 kcal/day per person, the world's agricultural production shall increase globally in 70% and 100% in the developing countries (Bruinsma, 2009).

4. 129% in North Africa, 174% in Western Africa, 161% in Eastern Africa, 184% in Central Africa and 119% in Southern Africa (UN, 2009).

reach something between 1.7 billion and 2.7 billion in 2050, according to the projections' hypothesis. In countries like Burkina Faso, Niger, Somalia and Uganda, the population should grow 150% (ONU, 2009).

With 13% of the world's population, the South-Saharan Africa concentrates 25% of the world's undernourished population, where, as a result of its demographic growth, the availability of arable land per person is decreasing – from 0.5 ha in 1950 to 0.23 ha in 2011 –, which in consequence transforms 50 thousand ha of forest every year and 60 thousand ha of cultivated fields (Rainelli, 2007, p. 21; Rochegude, 2011, p. 85).

The perspectives for demographic evolution and income increase, added to the effects of the global financial crisis of 2008 and the growth in the demand for feeding products, pressured the prices of agricultural products and, consequently, impelled the search for land to produce them. In other words, the conjunction of the food and financial crisis transformed the agricultural lands in a new strategic asset. But the prices of land did not follow the level of food growth and, in many places, as in Africa, they remain low, while they showed an increase of 16% in Brazil, 31% in Poland, and 15% in the United States' mid-western states, only in 2007 (Grain, 2008 apud Dabat, 2011, p. 99).

Within this framework, the great corporations, the research and cooperation centers, the multilateral organisms, the investment groups and the governments of their countries of origin and the ones that host the land and agricultural investments, discuss the type of agriculture – intensive or extensive? – what land to occupy and with what judicial guarantees – to whom the lands belong to? – what products to pursue – food or energetic? – what social model to organize – employees in large companies or modalities articulated with peasants? – as well as the political, social and environmental consequences.

2.1 Increase food production

The perspective for 2050 predicts that 90% of the vegetative growth⁵ in the developing countries would result from the revenue and the annual cycles per ha, products of technical progress, with more and better irrigation and increased diversity of revenue. The remaining growth required for the agricultural population would result of the expansion of 70 million ha (+5%) of arable land. The general increase would be caused by a growth of 120 million ha (+12%) in developed countries and a decrease of 50 million ha (-8%) in developing countries. The growth of arable land in the developing countries would happen exclusively in Latin America and in the South-Saharan Africa (Bruinsma, 2009).

5. For the developed countries, this rate would be 80%.

The arable land in the South-Saharan Africa increased 31% between 1961 and 2005 and will grow 25% between 2005 and 2050. On the other hand, the cultural intensity – number of cycles per ha/year – increased 31% at the same period and will not increase more than 6% until 2050. The perspective to double the population of the African continent until 2050 imposes at least two key questions. The first one related to the environment, as the agricultural production and cattle raising compete with forest areas for space. The second linked to the economic aspects, as the decrease in poverty and hunger change the technical and social relations of rural production, with deep social and political repercussions.

The comeback of the agricultural problem to the international forum agenda, with important reflections about how to feed 9 billion human beings in 2050, simultaneously opened profit prospects and business opportunities with activities that can “move mountains”. In this sense, different strategies are organized, one directed for the development of an intensive agriculture, another for an extensive agriculture.

2.2 Intensive or extensive agriculture?

With the purpose of producing food and preserving the environment, two contradictory strategies of agricultural development have been raised: the intensive and extensive. About the advantages and the risks, in one case or the other, there is great controversy among the opposing interests and little certainty about it.

The extensive strategy (*extensification*, in French) consists in reducing the application of assets per cultivated space, which preserves the environment and the biodiversity. Its consequence is the decreased land revenue, and it requires, therefore, a greater quantity of agricultural land (wildlife-friendly) to produce the same quantity as a system with higher land revenue.

The classic intensification strategy – the “green revolution” – comes to maximize the revenue per ha and the cultural intensity using synthetic and irrigation inputs that degrade the environment in the cultivated allotment, but allows a smaller area for production (land sparing).

Guaranteeing the agricultural production necessary to satisfy the demand and, at the same time, minimizing the environmental damage requires the political arbitration between the models that depend on the adjustment of these forces.

The environmental assessment is complex because as the intensification has two simultaneous and antagonistic effects over the environment: one negative over the local medium (cultivated terrain), and other, positive, over the global environment (preservation of public property with the biodiversity and the climatic stability). Symmetrically, the extensive strategy allows the decrease in pollution over the spaces cultivated (wild-life friendly, favorable to the biodiversity in cultivated spaces), but

it exert more pressure indirectly, inciting the production in other places, that is, to look for more non-cultivated spaces, forests (Vergez, 2011, p. 37).

The extensive strategy is more intensely defended by naturalists and associations for nature conservancy that do not consider the land economy allowed by intensification in its models. Vergez (2011) points out several studies about intensive and extensive agriculture and its impacts on the environment. The results found differ, varying according to the conditions.⁶

The arguments favoring the intensification supported by environmental factors are rarer. However, Burney *et al.* (2010) retrospectively estimates the gas emissions with greenhouse effects, prevented as a result of the intensification of agriculture (1961-2005), concluding that the public investments in agronomic research to increase revenue are actions against climate change.

Similarly, Ghazoul *et al.* (2010) thinks that the generalized extensive strategy “is not a realistic or credible strategy in the long term” in order to protect the environment, given the growth of food demand and other uses – biofuels – and the willingness to apply measures to reduce the emissions linked to deforestation and forest degradation.

Besides these aspects, two other issues associated with the intensive or extensive strategies are raised by Verges (2011). The first is that, under the intensification perspective, there is an alternative to search for the increase in land production outside the increase of synthetic inputs, responsible for the pollutions and erosions of biodiversity. This is the alternative known as “ecological intensification” (Griffon, 2006), that is, through the functional biodiversity for the protection against erosion, maintenance and restoration of fertility, azote fixation, recycling of mineral elements, etc., object of studies at the global centers linked to the network of the Consultative Group for International Agricultural Research (CGIAR).⁷

6. The model defined by Green *et al.* (2005) takes into consideration the impact over biodiversity and explicit the conditions in which the effects of land sparing are more beneficial than the effect of the “preservation of the cultivated area”, and the conditions where the best option is to intensify agriculture on behalf of the environment. These conditions concern the corresponding speeds of biodiversity degradation as the revenue increases in relationship to the cultivated space and that the virgin land are deforested to be cultivated. The decision rule lies in these two speeds. The studies of Balmford *et al.* (2005) point out that the variable revenue has a significant effect over the quantity of land needed to satisfy demand, when the analyzed the solidity of the link between the increase in revenue and the land sparing effect for 23 main food cultures. On the other hand, Ewers *et al.* (2009) present a nuance to this result, analyzing – for 24 countries during the period between 1979-1999 – the relationship between the revenue and the ratio of cultivated land per inhabitant – for the same cultures –. But they studied at the same time the surfaces cultivated by other cultures, besides the basic 23, and concluded that the relationship between the increase in the revenue of the 23 cultures and the low index of cultivated land per inhabitant occurs in the developing countries, but is too weak; this relationship was not detected at the developed countries. Then, the land sparing effect would not be systematic (Vergez, 2011).

7. Pretty *et al.* (2006) analyzed numerous agricultural projects, covering 37 million ha in 57 poor countries and showed that the techniques which are closer to the ecological intensification, with little use of external inputs, preserved the resources and allowed the increase in revenue, with great results for the African countries (Vergez, 2011).

The second issue regards the interaction of agricultural development trajectories – intensive or extensive – with the problem of rural poverty and, particularly, the poverty of the active agricultural workforce. The land productivity is one of the components of productivity of the agricultural work, and this depends on the average number of ha cultivated by agricultural worker, variable determined by the structural economic transformations, as the absorption of agricultural workers by the industrial and service sectors. In this absorption, if the absolute number of agricultural workers decreases, the cultivated surface by agricultural worker may increase, an important leverage of agricultural work's productivity (Timmer, 1988). The issue is to know in which of the paths the absorption of part of the agricultural workers and, therefore, the decrease of agricultural assets – leverage of the productivity of agricultural work – is the healthiest.

3 AVAILABLE LAND: MYTH OR REALITY?

Once the availability of land is a key variable to determine the degree of influence of the strategies to be implemented, doubt is raised if the existence sufficient land for agricultural production to satisfy the future demand in 2050 is a myth or reality.

3.1 Myth

On the one side, there are studies that question the idea of a big quantity of farmable land (Young, 2000; Bruinsma, 2009). For the period between 1995 and 2050, Collomb (1999) shows that it would be necessary to multiply the availabilities in kilocalories (Kcal) of vegetal origin by two in order to feed humanity, and by two and a half for countries in the south, and by five for the African countries. Gueye (2003) shows that land became a scarce resource in Africa throughout the last four decades. The population growth pressures land – in Ghana, the cultivated surfaces went from 14.5% to 22.5% of the national territory, and in Ivory Coast, from 8.5% to 23.5% between 1961 and 1999. Simultaneously, the cultivated surface per inhabitant decreased⁸ and the vulnerability of units of the poorest increased. This situation drives the family agricultural units, poorly provided of financial resources, the progressive undercapitalization and the recycling for other activities or as agricultural workers (Bélières *et al.*, 2003). This phenomenon is recurring in the urban peripheral zones with agricultural potential. It is also noted that the urbanization process, in which more than 60% of the population of West Africa will live in cities up to 2020, what represents great challenges for family agriculture producer of food in the region. This is a recurring problem in several other African regions.

8. At the Office zone from Niger to Mali, the cultivated surface went from 0.38 ha to 0.22 ha for winter rice between 1987 and 1999.

These studies raised the issue that a possible extensive strategy in agriculture requires firstly the recognition of the growth in the demand for food and the indication of new land to be cultivated. To this debate, add also the discussion about the use of land available for agro-food or energy products.

3.2 Reality

On the opposite spectrum, defending that there is sufficient land, Roudart (2010a, p. 41-42), in an exhaustive study about the world's land, concludes that:

(...) the databases we analyzed show that the usable land in pluvial culture and the not cultivated ones, are not, and will not be in the short run, a rare resource in planetary scale: according to these data, it will be possible to double the world's cultivated surface without advancing over the forests and leaving aside part of the low revenue land; it will be possible to multiply this surface by 1.6, excluding the cultivation of the currently protected zones. On the other hand, the global warming can lead to a modest growth of the farmable surfaces in the world.

The not cultivated farmable surfaces are abundant in South America and Sub-Saharan Africa. However, they are rare, if not inexistent, in the Middle East and Asia. As a result, South and Southeast Asia may suffer with the global warming. In global scale, the usable land surfaces in pluvial culture are much superior to the surfaces necessary to ensure, at the same time, the food safety conditions for the whole humanity and a certain development of cultures for biofuels. This conclusion continues to be valid even in the hypothesis of a weak increase in the revenue from cultures, in a scenario of double green sustainable revolution, and even excluding the cultivation in any forest or any currently protected zone. The sustainable valuation of these resources in farmable land requires appropriate public policies for agricultural prices, for land access, and research and development oriented to the needs and possibilities of poor producers.

The same study indicates that the land cultivated in the world today represent 38% to 45% of farmable land. The possibilities for expansion vary according to the region and are not very high in America, especially the South, and Africa, especially the Central. Half of the land available is concentrated in seven countries: Brazil, Democratic Republic of Congo, Sudan, Argentina, Colombia, Bolivia and Russia. In the South-Saharan Africa, only 20% of farmable land would be cultivated. The possibilities for expansion of cultivated surfaces would be 200 million in Eastern and Central Africa, 90 million ha in Western Africa and 50 million ha in North Africa.

For other authors, for example, Dabat (2011), it is possible that this land participate in the supply of biofuels. In order for Africa to provide 5% of the biofuels consumed by the European Union and the United States in 2020, something between 3 million ha to 14 million ha would be needed, depending on the culture. Similarly, to allow the African countries to replace 10% of its transportation fuels

with biofuels produced locally until 2020, the land requirements would be similar. And these areas would be limited to 5% of the agricultural land available in Africa, according to FAO (2008). Thus, through careful planning about the use of the land, the production of biofuels could be combined with the required food production.

However, the availability of agricultural land for agricultural production does not mean that it is legally available, or yet, that the best option is to use it for intensive agriculture or the production of biofuels, even in family units.

4 TRADITIONAL LAW AND STATE LAW

The definition of land availability in Africa is also a controversial and ambiguous criterion. For investors, the land that is not occupied through modern techniques is considered empty, idle. Nevertheless, many of this land supposedly available are, in fact, used by populations for their own survival, whether for transhumance, source of firewood, fruit crops, or they are idle to enter in future agricultural production. The rotations between pasture and agriculture, as well as idle soils, are part of these systems. Often these uses are not legally recognized because the users are excluded from the official right to the land. It must also be considered that the population growth foreseen and the demographic transition from the rural to the urban area will occupy part of this land (Dabat, 2011, p. 103).

The current land rules work at the same time as facilitators and obstacles to investment. The land statute sets out, on the one hand, the customary, traditional right that lies at the non-written consensus, established locally through evolving rules and, on the other, the written legislation, inherited from the colonial period, with administrative procedures for the creation of private property (Lavigne-Delville, 1998). The African rural population, although enjoying land rights locally recognized as legitimate, is constantly facing the danger of these rights being taken away by the State or third parties, with no guarantee of compensation or reparation (Comité Technique "Foncier et développement", 2009). At the same time, foreign investors negotiate with States for the acquisition of this land by purchase or leasing. Consequently, the procedures for the land acquisition face technical discussions about the right to the soil and the public administration registry, frequently leading to costs higher than the ones foreseen for the culture and the outflow of products. Such problems have often caused the departure of investors (Dabat, 2011), thus becoming a risk factor.

4.1 Land access

The agricultural activity employs the majority of the African active population and ensures an important percentage of its exports and its gross domestic product (GDP). Essential to agriculture, the soil has an important place in the

questioning about the investments and the “land hoarding”, exposing the complexity of the land situation in Africa.

The access to the land is the central dispute between the rural population, trying to survive, and the investors, longing for profits. With distinct expectations over the land, and almost always competing, both try to position themselves in the best quality soils, near communication paths, water sources, and markets. Rochegude (2011) proposes that an investment policy must distinguish the soil as object of investment and a condition for the access to investments.

For family cultivators, the right over the soil constitutes itself on the basis of “practical right”, customary, that is, a set of norms established according to the community visions. There is a real problem to know the judicial value, at the legal system, of these norms and its current use and interpretation. The specific provisions of the legislation on agricultural planning and rural development must be examined, which translate options for sectorial policies, including land provisions, frequently incoherent with the land code in place, as in Mali and Senegal (Rochegude, 2011, p. 87).

4.2 State Land

From the colonial period on, the rule was to oppose the rights legally established by the State over the practices and costumes, considered as possession with no rights. In the best case scenario, as “right to use” tolerated by the State, while this did not need the terrain to respond to the demands by investors, people dominating the written right in order to “expropriate” the traditional explorations (annexe A).

This position, also adopted by the African States after their independencies, was judicially founded in the presumption that the terrains with no legal title belonged to the State, which was questioned by the rural players. And this model served the development projects in the period within 1960-1980. With the neo-liberal measures, particularly from 1990 on, many countries validated the local rights by means of rural plans. The conciliation of legitimacy and jurisdiction justified the evolution of the legal systems and gave a more important position to non-written land rights. These procedures served the ongoing decentralization and liberalization processes.

According to Rochegude (2011), such procedures started to be used both in countries with Anglo-Saxon judicial tradition and the ones with Lusophone or Francophone traditions.⁹ They guarantee as legitimate the land rights locally

9. It is worth to mention the The Land Village Act of Tanzania, n° 7/1999; Law of Rural Land Domain from the Ivory Coast, n° 98-750/1998; in Madagascar, Law n° 2005-19, which fixates the statutes of land and Law n°, 2006-31, on land property; in Angola, the Land Law, n° 9/2004; in Benin, Law n° 2007-03, on the Rural Land Regime; the Land Law of Mozambique, n°19/1997. For more details, refer to annex B.

claimed by the users and, for that, local, public and contradictory assessments are organized, which allow the census of rights over the parcels and its limits, at the presence of witnesses, without recurring to the State administration – surveyors and registries. These procedures solve the land conflicts in advance.

However, there are differences in legislation that bring consequences to rural investors. In certain cases, the custom validation provision is territorially limited, as in Tanzania, where the land right of the village,¹⁰ applies exclusively in the village's own territory; in Madagascar, the land certificate is valid until the legal evidence to the contrary. The validation period of the land title may also vary. In certain cases, the local right documents can be transformed, or not, into unquestionable land titles. Depending on the country, not all documents which recognize customary rights allow the termination of plain property or a long term leasing – long leasing.

Together with the traditional law, there is the provision for the recognition of land property, in the classical sense, in almost every country.

Investors need an absolute land guarantee and, therefore, search for land systems that recognize the property through a legal title that defines a geographically limited surface. They need to guarantee, over time, the access to the terrains in order to explore it or make it explored and, therefore, the property of the soil has to be guaranteed, whether on his hands or on the hands of third parties.

4.3 The land book

The land book, known as the Torrens system (annexe C), is a legal instrument widely spread in the South-Saharan Africa which associates the terrain registration to the subscription of rights. It appears as a perfect instrument to guarantee the right to property, but it supposes a precise and comprehensive administrative logistics, especially on conservation, which in practice go rarely together. However, the coherence of legal and topographic information is not always ensured, resulting in judicial uncertainty that could lead to confusion and conflict that affect the titles' value. Therefore, it was necessary to enforce – as in Cameroon – provisions to give an unquestionable aspect to the title. But, as this would be expensive, it ends up being only applied to the more resourceful producers. It is understandable, then, under these conditions, this type of registration is not widely used, varying from 5% and 10% of terrains, according to the country (Rocheude, 2011, p. 90).

It is still possible to find investors who acquire the soil through administrative procedures, in state, ownership terrains. The government administratively designates

10. An administrative base circumscription, in the Tanzanian sense of village.

a terrain for economic exploration, with a pre-determined duration, according to the modalities of the act of distribution and the specifications. At the end of the term, if the project is considered explored, the tributary person may obtain the right to property, which is named differently depending on the country: occupation authorization, concession, etc.

4.4 Legislation for foreigners

The qualification of foreign investors varies according to each country's legislation. The property of the soil is almost always prohibited by law – Madagascar, Uganda – or constitutionally – Democratic Republic of Congo. This, it is necessary to resort to long term leasing modalities, which would allow the amortization of the investments made. A formula widely applied is the long term lease, in which the terrain is made available to the lessee upon a relatively low rent and allows the proprietary of the terrain to recover, at the end of the term, the improvements and infrastructure performed. The duration is long, generally between 50 and 99 years. This lease requires the right to property. The assumption of ownership claimed by the State allows the lessee to behave as the owner and, therefore, close such deals. However, the evolution of land systems, going from the hands of the State to the local population make the procedures more complex for land investors who should, then, negotiate with numerous holders of traditional rights, and not only with the State.

Occasionally, while the land legislation excludes foreigners, the law on land investment for foreigners allows them to benefit from specific judicial conditions.¹¹

4.5 Warranties

The land as investment requirement means to mobilize the right to the soil as warranty for funding and other sectorial legal provisions, notably the ones relative to the natural resources and the environment.

The World Bank (*Agriculture...*, 2008, p. 165) highlights the link between land and investment: “The effective land administration systems, in terms of cost, facilitate the agricultural investment, lower the cost of credit recurring more to the land as an asset offered as warranty for loans”. Beyond the judicial diversity, the provisions of land warranty are generally the same, mortgage or pawn, regardless of the credit's nature.

The mortgage is a “classic” model of property right constitution as warranty for a credit, and only the holder of a property right legally admitted can constitute

11. In Madagascar, foreigners cannot acquire terrains, but the law on investments (Law no. 2007-036, from January 14th, 2008) states that “(...) Malagasy legal societies in which management is under the control of foreigners, foreign-dependent organisms (...)” are authorized to acquire retail properties, upon previous authorization and use the retail property for continuous agricultural activity. The arbitration between the land text and the text on investments will be done considering the common law principle, according to the most recent text (annexe D).

a land asset as warranty. In countries that use the “land book system”, the constitution of mortgage justifies specific procedure and registration in the book, but also a specific seizure procedure of the asset bonded by judicial execution, in case of no reimbursement.

At the attributions of the soil by the State, it is recommendable to resort to the safeguards of rights attribution. Indeed, the rights of these administrative acts are generally considered personal and not real (Roche-gude, 2011). They are not consequences of the property right and are not judicially susceptible to bond. There is a contradictory aspect already predicted by the French colonial administration. The valorization of the terrain was needed in order to preserve it and, at the same time, it was not possible to find appropriate funding for lack of warranty. Then, the possibility of pawning was instituted. This provision was recovered in certain countries after the independence. “This distinction between mortgage and pawning is not only theoretical, but it is essential to financial institutions, as what is at stake is the “asset” under warranty, in one case the property, and in the other, the right to occupy and use the property” (Roche-gude, 2011, p. 92).

At last, there are several traditional modalities of land warranty constitution, always imposing the observation of the legislation of each country. Regarding the forest areas, in the 1990s, the State lost the conservation and exploration control, until then, almost a monopoly, and introduced a participating approach, integrating the population in those activities, particularly in regards to forest management. Most recently, it was increasingly decentralized, incorporating the collectivities and the traditional rights of exploration modes. Even though, the State keeps being the owner of forest areas, considered empty.

In regards to the areas for cattle raising, the rights vary. The increase of cultivation areas affected the availability of cattle raising areas. In a great portion of the African continent, as a result of the weather, the transhumance is used, where the cattle grazes moving through usually long paths, as in Sahel, which requires the feeding of the troop. As a result, the conflicts between peasants and shepherds are constant. After 1990, a multiplication of legislation¹² could be observed, which fixate the modalities for the identification of the access to the land and resources for the different players.

For the natural resources and biofuels, the investors also need to have access to the soil for the installation of the necessary infrastructure.¹³ Even considering

12. Known as “letter” or “pastoral code”, as the one from Mali, the Law no. 01-004, from February 27th, 2001. These laws trust decentralized collectivities with the responsibility of taking care of the limits in the land between cattle raising areas and agricultural cultures.

13. Remember the difficulties at the installation of the oil pipeline of Mondou in Chade, or in Kribi at Cameroon, and the conflicts between producers, environmental protectors and mining investors.

that there is a legislation to regulate the land issue against the mineral exploration, sometimes they foresee as an obligation of the mining explorer a lease contact for the use of the soil as the detainee of land rights. And, again, the complexity of land rights is imposed.

Finally, there are restrictions linked to environmental protection. Since the Rio-92 Conference, the view of sustainable development brought consequences to the agricultural investments. On the one hand, the need to strengthen the agricultural activities that produce less aggression to the environment and allow a better control of the inputs and water uses and, in the other, the need for protected spaces, prohibited to activities that may harm natural resources. In this manner, it is impotent to highlight that, besides the richness of the biodiversity of the African Continent, the destruction of nature is caused by both by the traditional fires for agricultural production and the large investors (Rocheugde, 2011, p. 95).

In short, it is reasonable to say that the issue of land rights in Africa is extremely complex and that the current situation shows how much the rural population has been expropriated from their land, through several mechanisms, in order to satisfy investments, becoming landless, jobless and with no capital.

5 AGRICULTURAL AND LAND INVESTMENT

The study *Investment and Regulation of Large-scale Land Transactions in Eastern Africa* (OCDE, 2011) demonstrates concern with the land investments in Africa and its consequences and suggests caution when proposing a constant dialogue among the players involved.

Commercial transactions in African land are not a recent phenomenon, but the amplitude of the surfaces acquired and the extension of the phenomenon for a great number of countries until then abandoned by investors is the novelty. Investors, originating from different continents, acquire great surfaces for productions required by the global market (OECD, 2011, p. 48).

According to that document, the foreign investors sometimes compete with national investors, sometimes are part of business partnerships. The States are motivated to receive investors by the financial contribution to the agricultural sector, increasingly abandoned by the Public Support to Development (APD). The document still mentions that the large-scale land investments may contribute to the planning and furnishing of the rural sector and promote the agricultural development. However, differently from the previous programs, when the proposals are presented to the African countries as the best and only solution, now are presented as the anticipated fear of conflicts. As the agricultural investments offer "(...) many risks for agricultural safety of traditional rural producers and for the environment" (OECD, 2011, p.48). And these investments generate

uncertainties on players as a result of the lack of nationwide regulation mechanisms and due to the fact that the legal frameworks in place are not effective, nor efficient. Similarly, initiatives from regional organizations demonstrate the willingness to invest in the land issue, but the regional institutions are perceived as insufficient to regulate the large-scale land acquisitions. And it concludes that through “(...) constant dialogue among the different players involved about the potentialities identified may be transformed in concrete results” (OCDE, 2011, p. 48).

The agricultural and investments taking place in Africa for a few years are initiatives of large foreign groups, public or private, from emerging countries such as China, South Korea, Libya, South Africa, India, Saudi Arabia, countries from the Persian Gulf (annexe B), or not. Its consequences are still uncertain because of the risks for conflicts they bring in the agricultural, social and political realms, but also, because the private investment funds participate speculatively, searching for opportunities that aim exclusively to its own profits.

These investments take on multiple and heterogeneous contents and amplitudes and directly influence the food safety and the transformation of the agricultural sector in the South-Saharan Africa. At the same time, the impact of investments in non-food productions – in biofuels – in the countries facing food crisis, is also uncertain.

The total volume of APD engagements for the agricultural sector in Africa was reduced to US\$ 6.3 billion – amounts for 2007 –, which means almost half of what it was in the mid-1980s. When aggregating to this APD, the food support, food safety and rural development engagements, the annual commitments for the agricultural sector reached US\$ 12 billion (Gabas, 2011, p. 47).

While the APD¹⁴ destined to the agriculture was reduced from the end of the 1980s on, the foreign direct investment flows (IDE) for agriculture are situated above US\$ 3 billion per year since 2005, when it reached an average of US\$ 1 billion at the end of the 1990s. Although it must be considered that regarding other continents, Africa is still an outcast in this matter.¹⁵

Following the rise of food prices in 2008 and in the context of the global financial crisis, the world's press highlighted the large-scale land appropriation movements in some developing countries by the initiative of public companies and sovereign funds from emerging countries, such as China, Persian Gulf countries, Libya, South Korea, and even South Africa.

14. The total portion of support to agriculture in the Public Support to Development (APD) for the members of the Committee for Development Support (CAD) was 17% by the end of the 1980s and went to 6% in 2007 (OCDE, 2009), although it has lower the speed of this decrease after 2008. Along the 2000s, the South-Saharan Africa received 31% of the support this agricultural sector. The half granted by the World Bank, regional development banks and the International Monetary Fund for the Development of Agriculture – IFAD (Gabas, 2011).

15. In 2008, the direct foreign investment (IDE) for Africa reached US\$ 72 billion, five times the amount of the IDE in 2002. Consider that this increase in 2010 represented only 4.5% of the world's IDEs (BAfD, 2011, p. 47-48).

5.1 The rush for land

The data on the recent land transactions in the world vary tremendously. For the International Food Policy Research Institute (IFPRI, 2009),¹⁶ between 15 million ha and 20 million ha of land around the world were subject to transactions between 2006 and 2009. The World Bank (Deininger *et al.*, 2011) states that the transactions involved 45 million ha only in 2009, against an average of 4 million ha/year between 1998 and 2008, and 70% of these transactions happened in Africa. The detailed work carried out by Anseeuw *et al.* (2012b, p. 4-5) about the rush for land goes way beyond.

The land transactions in the world, carried out or ongoing, between 2000 and 2010, total US\$ 203 million ha, which confirms the rush for land on those years. (...) over this total, negotiations totaling 71 million ha were object, up to this moment, of cross verifications, confirming the amplitude never seen before of the rush for land in these past 10 years.

The rush for land does not concern only the food production and the agricultural lands. According to the same study, 78% of the negotiations for acquisition concern the agricultural production, in which three quarters are biofuels, notably to provide the ongoing expansion of the European Union (Dabat, 2011) and most recently to respond to the requests of foreign investors from emerging countries. However, the mining industry, tourism and reforestation contribute significantly with 22%.

Africa is the privileged target of this rush for land, with 134 million ha of registered transactions, of which 34 million ha were the object of cross verifications (Anseeuw *et al.*, 2012b, p. 4-5).¹⁷ The acquisitions frequently aim the best land that is irrigable and located near infrastructure, which allows more conflict with the users of existing land.

Only 5 countries, Ethiopia, Ghana, Madagascar, Mali and Sudan would have given away 2.5 million ha of African agricultural land to foreign companies for exploration (Cotula *et al.*, 2009). The article at *Folha de S. Paulo*, from August 14th, 2011, states that “Mozambique offers Brazil an area three times the state of Sergipe”, which is equivalent to 6 million ha, for the plantation of soy, cotton and corn. The data on all the land ceded are huge and little is known about its consequences (Burnod *et al.*, 2011a; Anseeuw *et al.*, 2012b).

16. The International Food Policy Research Institute (IFPRI) is an international organization financed by numerous countries and it is part of the Consultative Group on International Agricultural Research (CGIAR), financed by more than 50 developed and developing countries and several private foundations and cooperation agencies.

17. The second most important target is Asia, with 29 million ha.

5.2 The investors

According to Ducastel and Anseeuw (2011a), China occupies the first place among the countries that acquire land in Africa, with approximately 80 investment projects announced. Followed by Saudi Arabia, United Kingdom and India, with more than sixty projects each, South Africa and the United States with approximately forty projects each. Brazil occupies the 16th position, with less than ten projects, followed by Holland, Italy, Egypt, France, Canada, Arab Emirates, Germany, Portugal and Sweden.

Nevertheless, it is important to observe that there is a big difference between what is released by the press as acquired land and the reality of the exploration of hoarded land, which would be much lower than the ones previously announced, as it can be observed at table 1.

TABLE 1
Announced and effective land acquisitions in some African countries

	Projects announced	Surfaces announced (ha)	Project effectively under execution	Land acquired (not necessarily under exploration)	%
Madagascar	60	4.100.150	7	18.900	0.46
Malawi	8	196.037	6	171.037	87.25
Mali	21	695.105	6	180.105	25.91
Mozambique	51	11.058.913	10	71.000	0.64
Zambia	13	3.701.515	1	45.000	1.21
Ethiopia	76	3.844.647	10	395.500	10.29

Source: Anseeuw *et al.*, (2011 apud Gabas, 2011, p. 50).

With the exception of Malawi, where the index of acquired land use is 87%, all the other countries listed at table 1 are below 25%, and Mozambique and Madagascar do not even reach 1%.

The African States have been playing an important role in promoting these investments for new potential investors without, however, guaranteeing proper regulation, as Burnod *et al.* (2011a) observe in their studies on Madagascar and Mali. Therefore, the States have been losing its primary regulating function, and the agricultural public policies have been increasingly fragmented among players, sectors and territories.

Beyond land acquisition, there is still the dynamic of direct production control, through the control of segments at the productive chain (production grabbing) (Ducastel e Anseeuw, 2011a; 2011b). This means that the movements of land appropriation are not the only forms of investment operated in the South-Saharan Africa. They are also the object of investment of agricultural and agro-food sectors, the top and the bottom of the productive chains, in production, transformation, commercialization and distribution of agricultural and agriculture food products.

There are varied forms of investment. The origin of investments can be public or private, bank or not, the land can be purchased or leased, production can be bought or not by investors, as it varies the forms and degrees of the integration of players along the productive chains that receive investment. Similarly, the destination of products varies; it can go to the market of the country of origin or host country, to the regional or international market.

5.3 Investors categories

Three categories of players implied in the dynamics of land and agricultural investment are distinguished by Ducastel e Anseeuw (2011b). Initially, the States concerned with its food safety and which develop strategies of land acquisition or massive agricultural investment abroad. They are interested in guaranteeing their food, displacing national production to refrain from depending on the international markets. Up to this moment, these investors have been coming from China, South Korea, India and Middle East, through the States sovereign funds.¹⁸ The second category of investors is the eastern agro-food multinationals. They strive to broaden control over all segments of the productive chain, particularly production.¹⁹ The third category comprises speculative investors. Due to the 2008 crisis, the agricultural sector started to be perceived as a future investment. Thus, players who are new to agriculture become interested in taking advantage of the increase agricultural prices and agricultural land. “Investment banks, pension funds and hedge funds invest, though, in the agricultural sector, along the production chains, carrying out a ‘Malthusian speculation’” (Ducastel e Anseeuw, 2011b, item 11).

5.4 Investors strategies

Gabas (2011, p. 51), however, presents four different strategies oriented by the modalities of financing. The first is the complete integration of the productive chain by big players – Monsanto, Cargill. The second, the banking integration of agricultural values, which reach between 30% and 40% of the South-African annual cereal production. The contract is negotiated between the bank and the producer before the productive cycle and the production prices as fixated from the start. The third strategy is the agricultural engineering partnerships that provide inputs to producers: in this case, the partnership taken on the risks, uses the risk management instruments – financial market, agricultural market, insurance

18. As the King Abdullah for Saudi Agricultural Investment Abroad from Saudi Arabia or the semi-public companies in China, within its “going global” policy framework.

19. A return of the cost-benefit relation at the core of the productive chain can be observed. If the primary production concentrated, until then, the essential risk, while profits originated from the top and, above all, the bottom, the agricultural prices increase tries to reverse this tendency. By directly integrating the primary production, these agro-food companies increase and reinforce its participation and positioning in the market (Cotula and Vermeulen, 2009).

against natural risks –, hires the total with the bank and selects the producer based on their performances. The fourth strategy involves the purchase of land or agricultural productions by investment banks, according to speculative conceptions. Besides the extension of these funds is still unknown, they are present and their locus of activity is spread out throughout Africa, particularly the Southern region. The four strategies have one thing in common: the consequences they have on social relations. All of them transform family producers in renters or agricultural workers in their own land.

Financial resources seem to be always available to these enterprises. The Chinese government added US\$ 5 billion to the China-Africa fund for Chinese businesses for the next 50 years, for the cultivation of rice, soy, corn and energy cultures, as sugar cane, sorghum and cassava. The African Fund for Fuels and Renewable Energy (Faber) made € 200 million available for projects within the clean development mechanisms (CDM). The Mother Earth Jatropha Plantation Fund, created in 2009, in Zurich, plans to invest € 250 million in projects in Asia or in Africa (Dabat, 2011).

For the countries that “host” these investments, some issues are imposed, such as the drop in the food production itself, the immersion in a market that they frequently do not know and the loss of control over their land. There is still the agricultural land issue, which has its feeding plants replaced by biofuels that, on its turn, offer good businesses opportunities for financing originated from emerging countries.

However, these “opportunities” neglect a great portion of the reality: the idea of an unlimited availability of land [for acquisition and investment purposes] in Africa is, in reality, a myth, as this land is the object of rights, and its monopolization cannot be stated in the name of an illusory emptiness, according to misinformed investors (Gabas, 2011, p. 53).

The problem again is to know if the existing land is available or not, fact that leads to a legal issue between the customary and the state right.

6 BIOFUELS

Among the 53 African countries, 42 are oil importers. These are vulnerable to the fluctuation of fuel prices and dependent on exchange rate resources to satisfy its energetic needs. Urbanization, demographic growth and development in the continent increase its energy needs. Therefore, they need to search for new sources, explore the renewable energy potential and still reduce the dependence on fossil fuels.

It is worth highlighting that the investments in biofuels are acts of the African States in search for energetic autonomy, but that also relate to the private

and public institutions, the society, the State businesses, the investment funds from other States and the capital from rich or emerging countries, such as China, Japan, countries at the Persian Gulf, India, European Union, United States and Maghreb (Dabat, 2011).

The investments in biofuels have led to controversies about the use of the soil, the price of agricultural products, the nature of the beneficiaries involved, the incomes and jobs created, the environmental impacts and the cost of follow-up public policies (Hazell e Pachauri, 2006; Dufey, 2006; Burnod *et al.*, 2009). On the one hand, biofuels offer perspectives for the intensification of the agricultural through the mechanization, the valorization of food cultures by the transformation or conservation of food products for transportation. On the other, the attribution of resources to energy cultures or the energy use of food cultures led to its competition with subsistence cultures. Thus, at the same time it allows the increase of local revenue and the decrease in inequalities, the investment in biofuels may engender the hoarding of the land, the land insecurity and the displacement of populations (Dabat, 2011, p. 97-98).

6.1 Lands in biofuels

Data presented by Dabat (2011, p. 98) assess that between 18 million ha and 44 million ha of land in the world would be used for the production of biofuels until 2030. From the 9 million ha ceded in Africa between 2006 and 2009, approximately 5 million were destined to fuel cultures, as jatropha, palm oil, and sugar sorghum. The Grain report (2008) presented a study of 405 projects that implied the land transfer around the world: 59 were situated in the South-Saharan Africa, among which 52 involved the production of biofuels.

Besides these estimates, the investments in biofuels in Africa remain little known, as the contracts are usually confidential and many projects are not executed. There is still confusion among the energy and food projects, once there are cultures that produce both and are not explicit to what they are destined to.

On the African side, there are motivations to welcome these investments. It is the direct financial profit resulting from the land sale or lease, the effects associated with the agricultural and agro-industrial employment, the infrastructures of storages and transportation, markets, research, and energetic improvement, development of more profitable cultures for export or the perspective of improving the energy consumption in the country.

It is true that the host countries play a primary role in facilitating the foreign investments. They update the necessary institutional structures, as investment agreements, land, fiscal and banking legislation reforms, aiming at the concession

of surfaces for biofuels.²⁰ Some countries have inhibited these investments, as in the case of Tanzania and Swaziland, for fear of the social and environmental consequences, although they accept propositions for the lease of agricultural land.

More than thirty African countries are engaged in the biofuels chain. Through the initiative of Senegal, fifteen countries founded the Association of African Countries Non-Producers of Petroleum (APANPP), known as the “Green OPEC” to promote biofuels on a continental scale.

There is no doubt that the rush for land will change the current agricultural systems with consequences for the region’s population, although the extension of this change and the strength of its impact are not clear yet. In the case of agro-industrial companies directed to export, the low level of employment created is questioned, in addition to the form of access to the land and the disrespect for local communities and the environment. In the case of chains organized through family agriculture and destined to local and national markets, there are key issues to be solved, such as the political weight of the local management of land and forest resources and the relation between the agricultural production and the transformation units.

6.2 Risk factors for investment

Three risk factors related to the investments in biofuels in Africa are highlighted by Dabat (2011, p. 104-105). The first risk is linked to the different views in regards to the land. For investors, it is an “economic opportunity”, while for traditional African societies, it is the fundamental constitutive element for the production and reproduction of material, spiritual and political life. The second risk is related to the different models. While investors propose a modern agro-industrial production, of great intensity and linked to distant large-scale markets, the African model is frequently based on a family agriculture directed to personal consumption. If, on the one hand, the future of small African explorations is affected; on the other, the mechanized agricultural business model proposed by investors will not be able to provide jobs at rural zones at the same level that family agriculture (Coordination Sud, 2010). The third risk is the increase in food shortage through the subtraction of land destined to food in favor of energy in countries that are already experience the problem of food deficiency. According to the FAO (2011), 307 million people suffer from hunger in Africa, among whom 265 million live in the Sub-Saharan Africa. Although Mozambique and Ethiopia are the African leaders in regards to production of biofuels, 46% of the Ethiopian population is considered as undernourished by the United Nations World Food Program, and one third of families in Mozambique suffer from hunger.

20. The Angolan Parliament voted a law authorizing the production, Mozambique delimited culture zones, Benin made more than 3 million ha of land available to foreign groups.

6.3 Development factors for investments

The investment models in biofuels are varied and, therefore, the impacts in African rural populations are also different. They depend on the type of production organization – if large private plantation, small peasant plantation, contracts with small producers; of the mode of access to the land and work, the definition of chains, and the final product – if pure vegetable oil, biodiesel, bioethanol; in order to value the energy – as electricity, driving force or transportation; and the targeted markets – if local, national or international, rural or urban use (Burnod *et al.*, 2009; White e Dasgupta, 2010, *apud* Dabat 2011).

Recent studies (Fara, 2010; Coordination Sud, 2010) argue that the effect of biofuels is positive, as they create jobs and revenue at the rural sector, build infrastructure, bring new technologies and knowledge, offer market opportunities and structure productive chains. Therefore, considering the global markets and the drop in the cotton market, biofuels represent a good opportunity for African producers.²¹

6.4 Exploration models

One of the recommendations to be observed for the production of biofuels has been the coherence of the existing agricultural systems. The family agriculture in Africa is characterized for guaranteeing, first of all, food safety through mechanisms such as diversification of varieties, strong community relations, natural resources management, among others. The investment in biofuels may lead the countries involved to an income agriculture destined basically to export and, on the other hand, force the import of food items, with volatile prices, destabilizing the African model.

The development of biofuels big units may still facilitate the emergence of landless peasants and favor the rural exodus.

The contractual agricultural model is frequently evaluated as the one that better preserves the interests of African producers. In this model, an organization invests financially and provides technology to small local polyvalent producers. In exchange, they detain the exclusive right to purchase their products with sale prices fixated a priori. It should always be remembered, though, that this model was used by the colonizers in many countries, with terrible results to the African people (Coquery-Vidrovithc, 2001).

21. François Traoré, president of the International Association of African Cotton Producers, recently declared that "Given the weak sales of cotton in which the African countries widely invested, the adoption of machines adapted for the use of biofuels, the fact that the gains of the petroleum do not return to the producers' pockets and the risk that the surfaces of unexplored lands are sold, it is advisable to consider the biofuel transformed in Africa from the cotton, but also the ones from castor, sunflower, and jatropha, which may represent an opportunity for African producers while preserve the environment" (Dabat, 2011, p. 105-106).

The precarious economic and institutional conditions of the local populations do not allow them to negotiate in equality of conditions with investors. In order to change this condition, public policies that guarantee the rights of the local population and the natural resources and, above all, the effective participation in profits, issues present at the national policies of the host countries.

Few States, such as Ghana and Botswana, are preparing themselves to adopt appropriate regulations and mechanisms that may take advantage of the foreign investments in agricultural land, preserving the subsistence resources and the interests of the local populations. Today, the agreements are unbalanced and the processes are not transparent, nor able to be controlled by the African authorities. The commitments of investors for the creation of jobs and infrastructure are generally less fulfilled than the commitments of governments to guarantee and maintain the access to the land (Friends of the Earth, 2010).

Up to this moment, the failures in public regulations have favored the private enterprises with large scale intensive agriculture and place the African populations at risk. It is worth arguing that the idea is to blame less the biofuel for the failures. Than prove that it may represent interest for the countries experiencing energy shortage, help diversify its economies and broaden the internal market, all depending on the model to be adopted.

7 FINAL REMARKS

Despite the different approaches, given the extension of the problem and the way in which the “land hoarding” has been done and the agricultural investments in Africa, the studies indicate caution in investments and point out factors that deserve to be taken into consideration. It is very likely that the large scale global demand for land remains for a long period of time, even if the tendency of the increase in food prices, which took place between 2005 and 2008, stabilizes. This demand fulfills the demand for food products, biofuels, wood and raw material, caused by the demographic growth and by global consumption. At the same time, speculative capital flows and the carbon compensation market are emerging factors in this process of rush for land.

The studies show that many land and agricultural investment projects in Africa are not realized, or suffer considerable delays, because they underestimate the existing difficulties in creating and managing great explorations in complex contexts. At the same time, when introducing fiscal exonerations and minimum leasing fees, African governments give up the revenue that they may obtain from provision chains or through the increase in land prices.

All of that weakens populations, which are also vulnerable facing the land leasing process once they do not have the property title that prevent them of having

guarantees about their possessions. This situation is aggravated by the reparations absolutely inferior to the resources assigned to them. Thus, the means for subsistence of the rural communities are threatened by the way in which the large scale land acquisition takes place.

The jobs created by the large scale projects are, generally, much lower than the initial estimate, besides being ill remunerated and precarious. Forests are particularly affected, as well as the land for cattle raising, swamps and humid zones. The agricultural development policy has been increasingly focused on the benefit of large scale commercial projects, underestimating the production potential of small producers and excluding them as partners – sector that awaits an effective Brazilian participation. The idea that great explorations are necessary to modernization is still dominant among the African political representatives, even with the weak results of large scale agriculture in Africa.

In this rush, the poorest have contributed with disproportional costs and won few benefits. The actions of receiving governments are insufficient to limit the growing impoverishment of rural communities, and the international laws are developed to serve this model.

Today, Brazil looks for a solid policy of solidary partnership with Africa. This solidarity cannot be based exclusively in the investment in agriculture and petroleum in the Continent, as this represents the risk of repeating the undesired model applied by other countries. There is no doubt that solidarity will cost more, once it will require more sweat, research and creativity regarding the relations with the Continent.

For that, the partnership relations with Africa must insert the investments in a long term program coordinated by the State, and in which the public, as well as the private, research, and productive institutions participate, with coverage beyond agrarian and energy production, infrastructure, education, health, commerce and defense. Only then, the actions may be more egalitarian and lead to a key role for the existing land users, without appealing to the search for easy profits in the hands of few, avoiding the repetition of colonial models, as farces. The increasingly stronger impulse to partnership, constant, respectful and mutually beneficial, is what Africans are certainly expecting from us.

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ANNEXES

ANNEXE A

Two opposing approaches regarding the recognition of right at the Ancient French and British colonial empires in Africa

In Western Africa, the British colonial administration was widely supported by local power structures and the authority to do justice, keep the order and the law, and the tax collection. With the exception of some cultivation and urban zones, the fundamental territories were governed by indirect administration and the customary law, local courts, according to the principles based on the British tradition of common law. Based on jurisprudence, the common law procedures are extremely flexible and allow new interpretations when the circumstances change. They keep, consequently, an intimate relation with the values of the social group of interest, but it is, at the same time, able to be biased towards the great local interests and may, then, conflict with the principles of equity. This judicial system deeply differs from a coding system which defines, from its core, a set of rules that need to be applied in the entire country. Both systems, the common law and the codified law, are based on the historical British and French experiences, at the three or four last centuries, and cannot be understood without reference to the tensions originated from the British civil war of the 18th Century and the French Revolution of 1789 and its consequences. The types of relations resulting between governments and citizens are still reflected by the judicial systems of these countries and by the administrative and judicial systems introduced in the countries they colonized (Merlet, 2006, p. 22).

ANNEXE B

Two examples of information systems on the land rights

THE FRENCH SYSTEM ON LAND INFORMATION

Based on the mortgage record and holding. These two mechanisms depend on the Finance Ministry – Treasury, Tax Committee. It has three fundamental missions: fiscal – appraisal of the land assets and set up of the basis for taxation – legal – identification of the owners' properties and their rights – and technical – coordination and examination through cartography in large scale. The records were generated on the Napoleonic period essentially with a fiscal purpose and it limits itself in taking into account the apparent owners, susceptible to pay taxes. If the recorded documents – blueprints and filing cards information on the owners of the areas have no official legal effect by themselves, the articulation gradually established with the land issues revealing system – record summaries and the areas space identification numbers – has caused the jurisprudence to recognize them on a certain proving value.

The French system for revealing land issues limits itself in accepting the filing of the acts related to the real rights and their transcription with the purpose of clarification with regard to third parties, in reference to the institutions dissociated from the keeping of mortgages. According to the French law it is the sequence of contracts between the parties, publicly acknowledged and not disputed that timely generate the rights.

The contracts are set up by the Public Notary's Offices – purchase and sale acts and other in connection with the real rights – and their copies are filed with the keeping of mortgages.

THE GERMAN SYSTEM

The German land book has, first of all, a legal purpose: of validation of the rights, the registration and record of rights regarding third parties. It depends on the Ministry of Justice and a system managed by judges of land issues who examine the fund and the form of the rights at the time of inscription. These rights encompass the set of existing rights in an area which are transcribed after being validated in the register. Therefore, enunciations of the land book have an absolute proving force. The inscription is worth as a title and proof of an existing title before the parties and third parties. The properties are subject to a compulsory mark that constitutes a public initiative function. The land book is articulated with the record that describes the properties and identify them. The record may depend of the same Ministry or other. It is also functional for fiscal purposes.

This system naturally offers a great assurance but its implementation is lengthy and costly (Merlet, 2006, p. 17).

ANNEXE C

The Torrens system and its variations (by J. Comby and J. Gastaldi)

Colonel Robert Torrens created his system primarily to be applied in Australia, under the English domination – the adoption of the Torrens Act, in 1858. At that country, it was easy to start from scratch in relation to a previous right to occupation: actually, the Australian natives were only recognized as Australian citizens in 1967 and the Supreme Court only recognized them as “first inhabitants” in December 1993.

Legally speaking, the colonial practices consist in the division of a recent discovered land, still “virgin” of rights, among the newcomers. That was what happened in North America after having “hoarded” the indigenous land. The plant’s profile was the registry’s job, the colonial authority that assigned the land to each settler and the registration in the land book of the new settler worked as a property title. The subsequent transfers were placed at the registry. The Torrens system came to organize these practices, at the majority of the colonies. The registration is not mandatory and the Torrens system only guarantees the rights in regards to the registered land. With identical appearance to the German land book, the inscription, once finalized, is definite and has absolute probative force. The registry is not separate from the land registry and any person who asks for the registration must establish delimitation and a plant designed by topographers and integrated to the registry. But this similarity is not only apparent, once the system only recognizes as valid the rights granted by the State. There are other registration systems that derive from the Torrens system or other similar systems. Some try to take into consideration a part of the customary rights, but they are all related to the colonial system (Merlet, 2006, p. 18).

ANNEXE D

Aspects of the Land Legislation

MOZAMBIQUE

In its Preamble, the Land Legislation in Mozambique (Law n^o 19/1997) says that:

The challenge to development that a country faces, as well as the experience in the application of Law no. 6/1979, from July 3rd, the Land Law, show the need for its review, so it can be adapted to the new political, economic and social conjuncture, and guarantee the access and security of the land possession, both for Mozambican peasants and national and foreign investors.

In other words, it attributes extreme importance to the security of possession for peasants, but also for investors.

It defines that the land in Mozambique is the State property and not merchandise, and “it cannot be sold or, through any alienated form, bonded or pawned” (Article 3). Not allowing its sale, the law establishes (Article 10) that “nationals, collective and single persons, men and women, as well as the local communities” and also the “single or collective foreign persons” who have an investment project approved, reside for at least 5 years in the Republic of Mozambique, or collective persons registered or constituted in the Republic of Mozambique, may all be entitled to the right of use and reclamation of the land.

It specifies the term for the “right to use and reclamation of the land for the purposes of economic activities” as a maximum period of 50 years, renewable only once for another 50 years upon solicitation from the interested party; not establishing any term for the use of land by the local communities, housing, and the terrains destined to family exploration performed by “national single persons”.

ANGOLA

The Land Law in Angola (Law n^o 9/2004) differs from the Mozambican law in several aspects and it is more complex. It defines the land as “original property of the State” (Articles 4 and 5) and it admits the public and private domain over the land, admitting the private property for urban terrains. For the rural terrains, the principle of 20 years copyholder concession prevails, allowing the redemption, or concession of the surface.

Article 3 – Application scope

1. The present law applies to the rural and urban terrains over which the State constitutes some predicted land rights in benefit of single persons or collective persons of public or private law, namely aiming at the purposes of the prosecution of agri-

cultural, cattle raising, forestry, mining, industrial, commercial, housing, urban or rural construction, territorial planning, environmental protection and prevention of soil erosion.

2. The terrains that cannot be the object of private law, as the terrains of public domain and the ones that, by its own nature, are unsusceptible to individual appropriation are excluded from the application scope of this law.

Article 4

The transmission, constitution and exercise of land rights over the terrains grantable by the State are subject to the following key principles:

- a) principle of the land as original property of the State;
- b) principle of transmissibility of terrains integrated into the private domain of the State; and
- c) principle of useful and effective reclamation of the land;
- d) principle of taxation;
- e) principle of the respect by the land rights of rural communities;
- f) principle of the State property of natural resources; and
- g) principle of the non-reversibility of nationalizations and confiscation;

Article 5

The land constitutes an original property of the State, integrated into its private or public domain.

Article 35 – Right to private property

1. Besides the special provisions contained in the present instrument and its regulation, the provisions at Articles 1.302 and 1.384 of the Civil Code also apply to the right to property.
2. The State may transfer to single persons of Angolan nationality, the right of property over the grantable urban terrains integrated into its private domain.
3. The State may not transfer to single or collective persons of private or public law the right to property over the rural terrain integrated either into its public domain, or its private domain.

This law defines that all natural resources are the property of the State and integrate its public domain (Article 10), allowing the State to grant the right for the exploration of these resources to single or collective persons.

In respect to the right of rural communities, the Article 9 determines that the State respect the land rights of these communities, “including those originating from uses and costumes”, making use of the traditional authorities in several aspects.

Article 37 – Customary public domain

1. It is recognized to families that integrate the rural communities, the occupation, possession and the right to use and the fruition of community rural terrains occupied by them and explored in a useful and effective manner according to the costume.
2. The recognition of rights, in regards to the previous item, is confirmed in a title issued by the authority responsible under the regulatory provisions of this instrument.
3. The rural community terrains, while integrated into the customary public domain, cannot be object of concession.
4. After the institutions of Traditional Law have been heard, the disaffection of rural community terrains, and its concession, may be determined, with no prejudice to the issuance of other terrains to the holders of customary useful domain or, of this is not possible, without prejudice to the appropriate compensation which was due.
5. Only the rural community terrains completely unoccupied may be object of disaffection by its holders, in conformity with the customary rules of temporary ordinance of domain or, exceptionally, under the terms of the regulatory provisions.

The right to the surface of urban or rural terrains, integrated into the private domain of the State, may be assigned “(...) in favor of national or foreign single persons or collective persons with main and effective residence in the country or abroad” (Article 39). Therefore, single and collective foreign persons have no restrictions to acquire these rights. This right imposes limits to the granted areas, not mandatorily inferior to 10 thousand ha (Article 43), but, in the same article, it opens negotiations through the Ministers Council, which may “(...) authorize the transmission or constitution of land rights over the rural terrains with an area superior to the maximum limit indicated in the previous number.”

Article 42 – Holders

With no prejudice to the provisions of Article 35, the following persons may acquire land rights over grantable terrains under the private domains of the State or local autarchies:

- a) single persons, of Angolan nationality;
- b) collective persons of public law with main and effective residence in the country provided that they have the ability to acquire rights over stationary objects;
- c) collective persons of private law with main and effective residence in the country, namely the institutions that proceed the realization of cultural, religious, and social solidarity purposes provided that they have the ability to acquire rights over stationary objects;
- d) public Angolan companies and commercial societies with main and effective residence in the country;

- e) single persons of foreign nationality and collective persons with main and effective residence abroad, with no prejudice of the restrictions established by law, constitutional and by the present law;
- f) the foreign entities of public law that have the ability to acquire rights over stationary objects, recognized by international agreements, provided that, in their respective countries, equal treatment is given to the Angolan equivalent entities; and
- g) collective international persons who, under the provisions of the corresponding statutes, bear the ability to acquire rights over stationary objects.

ANNEXE E

Characteristics of the land hoarding strategy at the countries from the Persian Gulf

- Governments initiate the procedure – organizing and elaborating agreements and specific modalities of bilateral policies, for example, agreeing in special exemption vis-à-vis the restrictions over food exports, or opening diplomatic representations in the countries where the contracts will be finalized –, but foresee, when not mandated, the transfer of the project to private companies.
- Support the Islamic traditions of helping the poor and sharing with the less fortunate, which is translated into the supply of a part of food items to the communities in the producing country or the national market, launch banking operations that apply the *charia* to distribute funds locally, or transfer technology, employment and training in order to make the projects more attractive, etc.
- True focus on the long term.
- Discourse with the clear commitment to conclude a win-win agreement [win-win].
- Context of food-for-energy exchange as numerous projects predict contracts for the supply of oil and gas in exchange (Grain, 2008).

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