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## Creating African Futures in an Era of Global Transformations:

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## بعث أفريقيا الغد في سياق التحولات المعولمة :

## رهانات و آفاق

# Climate change, Food (In)security and the Land Grab Syndrome in Africa

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## **Abstract**

Climate change has adversely affected food security and agricultural livelihoods of vulnerable populations, especially in rural African societies. Ironically, Global efforts at mitigating such climatic change, particularly pioneered by the West, yet through agricultural (biofuels) development, have equally proved a potent threat on food security for the same vulnerable populations. Using specific case studies from Ghana and Sierra Leone, this paper primarily examines the nexus of climate change, foreign-based agricultural development and food security, which constitutes one of the quintessential challenges of sustainable development in the world today. It shows how the critical intersections of climate change, sustainable energy development, and food security triggered off the current land grab syndrome targeting most developing economies, especially in Africa. Such prime lands, the paper argues, are often leased out by African State's governments to foreign concerns for biofuels production, and in few instances, for the cultivation of food crops, both often meant for Western markets. It further argues that two factors related to this development – the alienation of the local poor from 'their' land, and the development of biofuels instead of food crops – continue to undermine food sufficiency and security in Africa. In other words, despite being caused by the desire to mitigate climate change, and for reasons of sustainable development in the world, the paper argues that the land grab phenomenon does not address questions relating to food security and socio-economic livelihoods of Africans, many of whose lives depend almost solely on such grabbed lands. It further exhibits trends and likely nature of the emerging land use and rights conflicts that would ensue due to this development. The paper concludes that while the land grab syndrome is orchestrating hunger and starvation in Africa, seizing the 'opportunities' and managing the risks inherent in the interactions of climate change, energy and food security is a challenge which will require good land governance and responsible agricultural investment, amongst other strategies.



## **Introduction**

Africa is at the crossroads once again: large-scale commercial land transactions involving African governments and transnational corporations and/or foreign governments, especially of the global north has been a reality in the continent for some decades. Just as in the case of the historical “Scramble for Africa” (1880-1900), several evolutionary factors in other parts of the globe have created the impetus for this “new Scramble for Africa”, otherwise known as the ‘land grab’ syndrome. This has been triggered by two main factors: fears of food insecurity and the need for sustainable renewable biofuel energy sources (Odoemene, 2010), both of which are directly tied to the incidence of climate change. Because of these realities, Africa’s landed resources are being exploited in a disturbing manner by Western democracies and other emerging world players, including China, India and Brazil. But at no stage of the processes and proceedings in both the ancient and modern scrambles of African lands was there any doubt that whatever the real motives of these ‘diplomatic games’, the continent of Africa was to be deeply affected and in extra-ordinary ways (see Daniel and Mittal, 2009; Gavin and Betley, 1973).

The nexus of climate change, agriculture and food security, the main focus of our present discussion, “is one of the quintessential challenges of sustainable development” (Clark et al, 2010:5) in the world today. It is this challenge that is fuelling the new wave of large-scale land acquisitions by foreign countries for agricultural purposes. This development has implications for the African continent, particularly as it relates land alienation and food insecurity of its population. Indeed, it puts the issues of land rights and responsible agricultural investment on the front burner of the global discourse. Though von Braun and Meinzen-Dick (2009:1) argue that these land acquisitions and agricultural investments have the potential to inject much-needed development in rural areas of poor developing countries, they also raise some critical concerns about the impacts on poor local peoples who risk losing access to and control over land on which they depend, as well as the adverse environmental and socio-economic impacts. This is especially so because while the nature and scope of these large-scale foreign land acquisitions have been taken up in academic scholarship, thorough analysis of the ‘costs’ of such investment injections, as well as their benefits and policy implications are still rare. Indeed, as noted in a World Bank report: “With little empirical data about the magnitude of this phenomenon, opinions about its implications are divided” (World Bank, 2010:ix).

In turn, several important questions remain unanswered: What are the overall socio-cultural implications of foreign land leases for local populations? Can they yield equitable and sustainable benefits? What will happen to the bulk of the local peasantry left outside the main thrust of this development? How can local livelihoods be protected in an African context of increasing commercialisation and commoditization of land? This study explores and provides answers to these crucial questions by focusing on two case studies – the Ghanaian and Sierra Leonean contexts. It analyses these large-scale foreign land grabs and their impacts on local livelihoods, broader agrarian and social changes taking place within this development. The study areas include the Makeni Region of Sierra Leone, South Tongu District in Volta Region of Ghana and Tamale in Ghana’s Northern Region. It concentrates on three respective governments’ land leases to foreign agricultural concerns in these communities.



## **The Complex Challenge of Climate Change**

Of outmost importance to our present discourse is the issue of climate change, especially as it affects land grabbing and food security, and the interdependence among these various dimensions of the sustainability challenge in Africa. Climate change, which is a consequence of the atmospheric accumulation of greenhouse gas emissions, particularly carbon dioxide, is a reality in our world today. But it has not been given its proper place in global politics. At present global carbon dioxide emissions amount to some 33 billion tons and about 80 percent of this originates from fossil fuel burning, especially in the developed countries (Fischer et al, 2009:30). Similarly, rapid growth in many of the world's populations and economies is increasing other socio-economic demands like food, energy, fiber, water and land for housing. Clark et al (2010:5) note that the efforts to meet these and other essential human needs are equally transforming the global environment and driving dangerous changes in the world's climate.

von Braun (2008:2) has aptly noted that "climate change is now not only a better-understood scientific fact, but also a phenomenon which has already affected global temperatures, regional weather patterns, and physical and biological systems." A strong consensus has emerged pointing to the fact that it poses new challenges to already-vulnerable populations: developing countries are more vulnerable to climate change than developed countries, and will, thus, bear the brunt of its adverse consequences (FAO, 2008; von Braun, 2008; Ringler et al, 2010). This is because of the predominance of agriculture in their weak economies, high poverty rates, the scarcity of capital for adaptation measures, high vulnerability levels due to their warmer baseline climates and their heightened exposure to extreme events (Parry et al, 2005; Cline, 2007; Ringler et al, 2010). Thus, climate change may have particularly serious consequences in the developing world in largely uncertain ways (Ringler et al, 2010), where some 800 million people are already undernourished.

Interestingly, issues of food security figure prominently in the list of human activities and ecosystem services under threat of dangerous anthropogenic interference on earth's climate (Watson et al, 2000; IPCC, 2001). This is because climate change is a major factor, along side energy, which is redefining the world food equation and having an enormous impact on the food security of poor people. Not only does it put additional pressure on already over-exploited natural resources, it also negatively affects crop yields, stability of food supplies, and the ability of people to access and utilize food in many parts of the developing world (von Braun, 2008). It has also led to increased water stress, decreased biodiversity, damaged ecosystems, rising sea levels, and to social conflict due to increased competition over limited natural resources (von Braun, 2008:2). Importantly, climate change shocks also erode the long-term opportunities for human development and could exacerbate inequalities within countries (UNDP, 2007). In this development, it is small-holder agriculture, pastoralist, forestry, and fisheries and aquaculture that are among the systems most at risk (FAO, 2008). Indeed, it has been projected that by 2080, agricultural output in developing countries may decline by 20 percent due to climate change (Cline, 2007).





Despite the looming presence of climate change and its catastrophic dangers, many world leaders have fallen short of their political responsibility in combating it. While various international conferences, world summits and separate task forces of the UN Millennium Project and other efforts have been convened to address this issue, the developed countries, as well as other emerging economies (China, Russia, India, Brazil, Malaysia, etc), seems to show reluctance and lack of political will in drastically reducing their carbon emissions. Unfortunately, again, the mistakes, criminal negligence and irresponsibility of this group seem to be a potential curse to most developing countries, particularly in Africa. Clark et al (2010:5) aptly remarked that many of the changes “are increasing the vulnerability of society, especially the poor, and are undermining the food and livelihood security of billions of people.”

### ***Africa and the New ‘Biomass Regime’***

Biofuels production is another big issue in the climate-energy-food nexus that was drawn into the orbit of multilateral policy making.<sup>1</sup> Biofuels development, which is essentially the production of ethanol and biodiesel from agricultural crops, has been specifically in pursuance of three clear objectives: (a) migrating to a cleaner and cheaper transport fuel supplement towards mitigating climate change; (b) expanding the fuel energy resource mix; and (c) fostering rural development in target societies (Fischer et al, 2009:30). Indeed, the perceived importance in these three areas has seen biofuels arguments feature prominently on the international agenda. Due to the haste of the interested developed countries (and/or their agents) at impatiently craving to ‘invest’ in agricultural production for biofuels purposes in developing countries, ‘policy has gone on well before research’ (Borras and Franco, 2011:14; Fischer et al, 2009:31). It has been noted that

The rather impetuous policy and public funding and support policy commitments for biofuels development have been expedited without due diligence ... There has been a lack of comprehensive assessments, including through analyses of the potential impacts of biofuels developments on international food prices, food security, greenhouse gas savings as well as risks of biodiversity loss (Fischer et al, 2009:31).

However, despite this glaring gap between policy and research, the ‘biofuels frenzy’ among developed countries has gone on unabated and rapidly since then. This development has raised many concerns, particularly because the consequences result in social, environmental and economic impacts, well beyond the national and regional setting of domestic biofuels targets. One of such is food security in many societies targeted in the development. Research has shown that the rapid expansion of biofuels technology has been affecting virtually all aspects of food markets, ranging from the allocation of large expanse of arable land to produce biofuels to the

<sup>1</sup> “2025 – Fields for Food or Fuel? Scenarios for a New Biomass Regime,” A summary brochure of key findings of the “Fields for Food or Fuel” (FFF) Project.

<http://www.shiftn.com/Content/2025%20Fields%20For%20Fuel%20brochure.pdf> (accessed on 5 January 2012).



adoption of crop export bans and import restrictions to protect domestic food markets, the most glaring and pervasive being the first. These naturally have significant consequent risk of hunger in most poor regions of the world.

The current focus only on migration to biofuels as a way of mitigating climate change is thought to be rather deceptive, hypocritical and unserious. Many other good alternatives are not being discussed or explored apparently for political reasons. For instance, why is the ‘solution’ not focusing squarely on combating its main cause – the emission of Greenhouse Gases, majorly by the developed world? Though the argument for the production of cleaner and cheaper transport fuel (i.e. biofuels) is well taken, its principles which lists “rural development” as one of its three ‘benefits’ is suspect and raises a lot of concern. Without a doubt, the target is the developing countries where more than 70 *percent* of the poor reside in rural areas. As 40 of the ‘least-developed’ countries are mostly in sub-Saharan Africa (Fischer et al, 2009), this poor continent is a primary and foremost target. The question, thus, is why so? Why not elsewhere, especially in the global North? The much touted reason has been that Africa has so much land: excessive expanse of arable but “un-used” lands amidst smaller populations, that is, with relatively low population density (Friis and Reenberg, 2010).

This declaration concerning Africa’s populations has a ring of hypocritical concern. In the past we were made to understand that Africa was “overpopulated”, but with the biofuels debate Africa has suddenly become under-populated. So it depends on whose convenience it is to define what the situation of land is in Africa. With the plan of using African land for the production of biofuels for the developed economies, it is clear that the poverty of the African continent is being taken advantage of by the rich developed countries. With such lopsided power play and divergence of interests, this biomass agenda can hardly yield equitable and sustainable benefits; on the contrary, it would rather be grossly exploitative. In fact, one wonders why Africa should always be used for the exploitative purposes of the developed world. This unfortunate connection has two vital historical antecedents: the slave trade and colonialism. During these historical epochs Europeans maximally exploited Africans, using the continent’s resources (human, agricultural and mineral) to ‘feed’ European industries.

The biomass option is equally questionable if one is to think critically of environment-friendly practices that could promote sustainable development. For instance, the nature of such “modern” agricultural approaches as those undertaken for biofuels production, which are often heavily mechanized, involves monoculture, requires large amounts of chemical fertilizers and pesticides, and entails the drawing of massive amounts of fresh waters from rivers for irrigation, is being seriously questioned by scientists and experts around the world. On the contrary, it has been argued that in the face of a growing global population and climate change with its threats to water resources and arable land, the only truly sustainable approach to land use and increased food production is “agro-ecological” agriculture. Such farming produces more than just a handful of commodity crops, emphasizes agro-diversity and bio-diversity, and performs a range of environmental services as well. Again, one must also think critically of the varied dreadful implications of the magnitude of deforestations witnessed with biofuels production and the consequent energy crop production which adds to the greenhouse gas emissions problem.



This new biomass regime being foisted on Africa raises so many critical questions. For instance, why are there no such biofuels discourses/plans for Africa, except those which seek to use its lands for the benefit of others? If the rest of the world ‘migrates’ from fossil fuel to biofuels, what kind of pressure would be mounted on Africa to follow the ‘trend’? What kind of effects would such pressure and eventual ‘hurried transition’ have on its economies? What are the economic implications of the transition from fossil fuel to biofuels, especially for African countries whose economies are heavily dependent on crude oil production? Though the analysis of these issues is beyond the mandate of this paper, it is safe to conclude that as a consequence of these one should expect, in the long run, food shocks within short periods in Africa, as well as food riots due to insecurity, as witnessed in several developing countries in 2008 and 2010.

### **Land Grabbing: Scenarios from Ghana and Sierra Leone**

The past decade witnessed an accelerating intense pressure by national government agencies, private investors and wealthier nations on land resources of developing countries (GRAIN, 2008; Cotula et al, 2009; Daniel and Mittal, 2009; Friis and Reenberg, 2010:1). ‘Land grab’ is the “catch-all phrase that describes this explosion of cross-border (trans)national commercial land transactions.”<sup>2</sup> This phenomenon has been caused by a convergence of human-environmental factors which have been interacting over time, and was essentially triggered by the exigencies of the climate change challenge. The consequent revaluation of land by powerful economic and political actors led to the dramatic rise in the number and extent of such land transactions, especially targeting African countries (Mbow, 2010; Borras and Franco, 2011). For instance, in 2009 alone the World Bank estimated that around the world, 56 million hectares of farmland – an area seven times the size of Sierra Leone – were acquired by large scale investors, with more than two-thirds of the demand in Africa (*Standard Times*, 2011:19; Friis and Reenberg, 2010).

While the grand motive of land grabbing is often for the production of food crops and biofuels for export, other rare, but certainly disturbing dimensions, to this phenomenon have been experienced. An example was the busted ‘Liberian deal’ sometime early June 2010, in which a Merseyside-based British company leased large tracts of land in Liberia not for staple crops or biofuels; but rather, it was all about carbon credits – specifically, forest credits for avoided deforestation, that can then be used by European Union states or other Kyoto Accord signatories to meet their emission targets (Evans, 2010). Another shocking instance was Daewoo’s disastrous attempt to lease one half of Madagascar’s arable land for 99 years back in March 2009 (Walt, 2008; Evans, 2010; Hong, 2011). Again, one is appalled by the news of plans for and discussions on the production of solar energy for some European countries from the Sahara desert (Meinhold, 2009).<sup>3</sup> These are, certainly, very rare dimensions, which ultimately underline the seeming awkwardness associated with such trends.

<sup>2</sup> “Land.” <http://www.future-agricultures.org/land> (accessed 20 December 2011).

<sup>3</sup> See also: “Saharan Solar Power to Provide Energy for Europe.” <http://solarpowerpanels.ws/solar-power/saharan-solar-power-to-provide-energy-for-europe> (accessed 03 January 2012).



Indeed, the rapid leasing or buying of millions of hectares of Africa's arable lands has raised some suspicions. It's often *suspected* that bribery of host country elites is part of the picture, but this is extremely hard to *prove*. In any case, as Evans (2010) opines, many investor countries will turn a blind eye to such, given their strategic interests in the development. While some have seen great socio-economic potentials and benefits in this land grab development, we are of the opinion that it portends a severe danger to the livelihoods of the rural poor in the continent. Evidences from specifically selected cases in Ghana and Sierra Leone would lend more credence to our claims.

### ***The case of Ghana***

Agriculture is Ghana's most important economic sector, employing more than half the population on a formal and informal basis and accounting for almost half of Gross Domestic Product (GDP) and export earnings.<sup>4</sup> This sector of the country's economy, like that of many their sub-Saharan African countries, is dependent on small-holder farmers in rural areas. Land for this group of farmers is no just strategic, but very indispensable for their livelihood and food security. Thus, any development in the agricultural sector, especially one that affects landed resources, should be considered a vital one which could make or mar economic development in the country, particularly among the rural poor. Incidentally, Ghana has currently joined the league of African countries in the forefront of foreign-based food and biofuels production, the later especially focusing on Jatropha and Cassava feedstocks (Adam, 2010; Boamah, 2011).

The foreign-based agricultural development in Ghana seems to have been initiated and is fondly supported by the government which sees it as crucial for the country's strategic development (Tsikata and Yaro, 2011; Boamah, 2011). It is this 'willing party' position of the government of Ghana that necessarily triggered the intensive large-scale land grab scenarios in the country. Though several foreign countries and agencies have agro-investments in Ghana, this paper would only be focusing on the dynamics of two such projects – the "Aveyime Rice Project" in Ghana's South Tongu District (in the Lower Volta) of the Volta Region, and the biofuels investment in the east of Tamale in Ghana's Northern Region.

The story of the Aveyime Rice Project is an unsavoury one for any keen observer of politics in Ghana. It smacks of political wrangling and intrigues, back-stabbing, and the often preferential treatments given to whites over the locals or indigenes by many of the African governments. The project is actually a case of large-scale foreign land use for the production of rice for food, not for biofuels purposes. Thus, this would have been a welcome idea particularly for two reasons. First, rice has become a staple in Ghana far outstripping the dominance of maize in the diet of most people (Mensah, 2008; Fafa Akpene, 2011:PC). Second, due to severe back slides in Ghanaian agricultural produce since the 1960s, Ghana has become a net importer of rice. This is of particular importance as between 350-400 million dollars is currently spent annually on the importation of rice into the country (Mensah, 2008). The venture is popularly known as

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<sup>4</sup> Wikipedia. "Agriculture in Ghana." [http://en.wikipedia.org/wiki/Agriculture\\_in\\_Ghana](http://en.wikipedia.org/wiki/Agriculture_in_Ghana) (accessed on 11 December 2011).





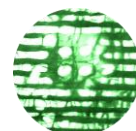
Aveyime Rice Project because its offices and rice mills are at Aveyime, though land for the project's farms was acquired from the elders of Mafi Dove, a few kilometres away. It was established on a 20 thousand acre land by the *National Democratic Congress* (NDC)-led administration in 1997.

Under the previous "Quality Grain Agreement," the investor(s) owned 40 *percent* of the project while the rest was equally shared between the Ghana Commercial Bank and the Government of Ghana. However, after seven years of abandonment, the *New Patriotic Party* (NPP)-led government went into a new agreement with the Prairie Texas Incorporated (PTI), whose subsidiary, Prairie Volta Limited, would essentially handle the project. In this agreement, the new investors, PTI and Development Finance Holding Company (DFHC), hold 40 per cent and 30 per cent, respectively (totalling 70 *percent*) of the project with the rest 30 *percent* going to the government of Ghana (Mensah, 2008). The Ghana government's equity in the business is land compulsorily acquired from the people. It must be noted that many local competitors, such as the Integrated Rice Project, allege that due process and diligence were never adhered to; rather the process was conducted in favour of Prairie Texas Incorporated using Integrated Rice as cover (Kisseih, nd). In other words, the government had a preference for a foreign firm over those owned by Ghanaians which were equally qualified to handle the required job.

On the other hand, biofuels investments in Ghana are primarily driven by foreign capital. One of the many biofuels projects in the country is the Norwegian biofuel company, Solar Harvest AS, through its African affiliate, BioFuel Africa Limited (*Ghana Business News*, 2010; Adam, 2010; Boamah, 2011). The company first began the jatropha project in Alipe, a village in the Central Gonja district of Northern Ghana in 2007 but suffered local opposition from a coalition of Non-governmental Organizations (NGOs), individual environmental activists and media debates through relentless aggressive campaign and public sensitizations. These were on the grounds of perceived dire implications of the project on livelihoods and food security, particularly on locals' households in the affected community (Boamah, 2011:3; Franca Chentiwuni, 2011:PC).

The project operators were also accused of shady dealings with the chiefs of the communities, where colonial-style tactics of deceiving the leaders to "lease out land by mere 'thumb print' and the 'lure of token' sums of money and 'false promises' of job creation" were employed (Boamah, 2011:9). Without a doubt, such notorious tactics only underscored the company's desperation and greed in getting a foot-hold in the community. For all intents and purposes, such acts could only be for exploitative purposes and not for the good of the locals. Following the formidable resistance of the people and their 'watch-dogs', the EPA ordered the suspension of the project in Alipe (Boamah, 2011; Matondi et al, 2011). The project was, thus, eventually abandoned after a month-long of operation, but not before 2,600 hectares of land had been deforested (Boamah, 2011).

After the suspension of the project in Alipe, BioFuel Africa Limited moved to a new project site in 2008. The site encompasses some seven villages – Kpachaa, Jashe, Tugu, Kpalkore, Joro, Chegu and Tijo – and is located along Tamale-Yendi road, about 55km distance from Tamale, the regional capital of Northern Ghana. This new site was part of the 23,000 hectares of



land approved by the Environmental Protection Agency of Ghana (EPA-Ghana). The plantation was for the cultivation of jatropha which predominance is due to the widespread perception of production viability on marginal land areas, lack of competition with food crops and economic returns for small scale farmers (Ariza-Montobbio et al, 2010) especially in developing countries. This has, however, been a main source of debates in Ghana (Boamah, 2011).

As Nyari (2008:1) has aptly surmised on the BioFuel Africa Limited project:

...This is the story of how a Norwegian biofuel company took advantage of Africa's traditional system of communal land ownership and current climate and economic pressure to claim and deforest large tracts of land in Northern Ghana with the intention of creating the largest jatropha plantation in the world.

It has been predicted that the food supply emergencies and the accompanying high food prices in Ghana is to worsen given the spate of biofuels investments and consequent out-sourcing of large land areas (Action Aid-Ghana, 2009). Without a doubt, BioFuel Africa Limited project, one of the biggest of such establishments in Ghana, contributes enormously to this situation.

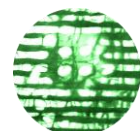
In establishing these large-scale farms (in both cases), which are essentially in foreign hands, a whole lot of native lands were involved, thus many local farmers and inhabitants of the affected villages and communities were driven out of their ancestral lands on which they have lived for ages. Whether it is in the Aveyime Rice Project case or that of the Biofuels Africa Company, the story of such painful land dispossession and alienation were rife, with the local people expressing bitterness, helplessness and frustration (Tsikata and Yaro, 2011). In many instances, this meant the abrupt ending of the locals' sources of livelihoods. Jerry Mawunyega, a farmer in Aveyime community, expresses this situation thus:

My whole life is all about farming. I had the land and farming was all I did. Now that has been ruthlessly cut off. And the money they will pay as compensation for my land is nothing but peanuts to me. Have I not been ruined? How will I feed my family? How do we survive this onslaught? (Jerry Mawunyega, 2011:PC)

Furthermore, Balemini Sindoliwa, a farmer from Chegu Village, has argued that

It is from our land that we get what we eat and what we use to sustain our families. Land is the backbone of our economic activities here [in Chegu]; anything else is subsidiary and comes from the farm. So if the land is taken away, a vital and often only source of livelihood for us, the rural people, have been taken away. It is a very serious affair (Balemini Sindoliwa, 2011:PC).

On the payment of compensation for the acquired land, the government has equally been too evasive, often giving a myriad of reasons for the delay. However, in the Aveyime Rice Project case, things took a new turn as the said compensations were now to be paid by PTI instead of the



government. In putting up a framework for this purpose, the PTI undervalued the land, placing a cap of \$300,000 USD as compensation to be paid for it (Kisseih, nd). Indeed, it is rather ludicrous that a foreign company determines the value of the Ghanaian citizen's land, what and when it will pay the landowners, and even puts it at less the price originally determined by the government (Charley Mawusi, 2011:PC). In the BioFuel Africa Limited project case, about 13,800 Ghana cedis was paid as compensation for the lands acquired from each village. This was often shared or divided among the various chiefs with the paramount chief/regent receiving a bigger share (Tsikata and Yaro, 2011).

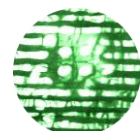
### ***The Sierra Leonean case***

As at present, 70.4 percent of Sierra Leone's 5,246,000 population is below the poverty line, while only 38 percent of this population lives in urban areas. As is the case in most other African societies, agriculture remains a primary economic activity for a majority of Sierra Leoneans and continues to be the most dominant sector of the country's economy. It accounts for about 49 percent of the country's GDP, employing about 75 percent of the rural population (Sowa, 2011:2). Sierra Leone's agriculture remains largely in the hands of small-scale farmers who employ simple farm tools and minimal technological enhancements. However, a combination of critical factor – poverty, climate change and other extreme weather conditions, lack of government incentive, lack of modern agricultural techniques, etc – have resulted in dire situation of food insufficiency and insecurity in the country. Sowa (2011:2) instructively noted that

Smallholder farmers are often unable to grow enough food to feed their families throughout the year. Most farms have low yields due to deteriorating soil fertility and a lack of access to fertilizer and high-yielding seed varieties. Poor infrastructure leaves farmers vulnerable to drought and flooding. The majority of people living in rural areas have faced repeated seasonal food shortages for the past decade. Low agricultural productivity, poorly developed markets, and limited access to credit and productive land are additional factors that contribute to hunger and poverty in rural communities in Sierra Leone.

The Koroma-led Government in Sierra Leone and the Sierra Leone Investment and Export Promotion Agency (SLIEPA) have continued to express their strong desire to attract large-scale foreign investment to the country, especially in the agricultural sector. In the President's "Agenda for Change" (2008), the government declared agricultural development and food security to be the foundation for the country's economic development and poverty reduction (*Standard Times*, 2011). The large-scale acquisition of farmland in the country by foreign investors for agricultural development is part of this strategy.

Sierra Leone is a relatively small country of about 7.2 million hectares (ha), less than a third of the size of either of its neighbours, Guinea and Ghana. Of this size, about 5.4 million hectares or 74 percent of the country's land is considered suitable for agriculture. From the

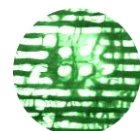


foregoing, it is quite normal for observers to speculate that since only 15 percent of the country's arable land is currently under cultivation (*Standard Times*, 2011:19), the rest is 'available', probably for long-term lease to foreign investors. However, this notion is grossly erroneous and has been one of the misleading factors engendering the land grabbing syndrome in the country. That such lands in question are "un-used" or "under-used" is rather largely a misconception of the farming trends in African societies: "the terms 'arable' and 'cultivable' are misleading when it comes to land, as they imply that reserves are available for further expansion, which is not the case (*Standard Times*, 2011:19). To be sure, "un-used" land is rare. What's seen as "un-used" land is often

land used by marginalized people, by economically weaker sectors of communities, especially women. Much of it is communal land, collectively used by local people who might not have an individual land title, but for whom it is a vital resource for water, feed, food, medicines, fuel and other purposes. Such land is also essential for biodiversity, water supplies, soil and ecosystem regeneration. In some cases, governments have even classed diverse forests on which communities depend as 'wastelands' (Paul et al, 2009:23).

Indeed, a study on 'Rural Agricultural Finance in Sierra Leone' commissioned by the Bank of Sierra Leone and the German Ministry of Economic Development and Cooperation revealed that "there is no remaining potential to significantly enlarge the area under cultivation anywhere in Sierra Leone" (Bello, 2011). The majority of Sierra Leone's poor live in rural areas, and about 3.5 million of its citizens – 60 percent of the entire population – depend on small-holder agriculture for their daily subsistence and livelihoods (*Standard Times*, 2011:19). This is as true for the Makeni region, which is one of the focuses of our present study, as it is for most other regions of the country. Though these farming are often done on small, family-owned plots, many of which have been cultivated for generations (UN, 2008:1), their dependence on agriculture, as is also the case in many African communities, is likely to remain high for some time to come. In this light, the United Nations categorizes Sierra Leone as a "low income food-insecure country" (Green Scenery, 2011:7; Bello, 2011). Without a doubt, poverty was evidently manifest in and around the country's regions and villages.

It was on this backdrop that the government decided to welcome foreign investments in the country's agriculture sector both for economic and rural development. Among the many foreign investors who in recent years have leased hundreds of thousands of hectares of farmland in Sierra Leone is the Addax BioEnergy operating in the Makeni region of the country whose activities have generated a lot of controversies since the inception of the project. Owned by Jean Claude Gandur, a Swiss commodities trader and billionaire, Addax Bioenergy (Sierra Leone) set up a 258 million Euro (\$366 million) agricultural project near Makeni town, in central Sierra Leone (Saltmarsh, 2011:B4). The project is developing a sugarcane plantation and production of bioethanol and renewable electricity. The project works started in 2010 soon after the Memorandum of Understanding (MOU) was ratified by Sierra Leone's Parliament. Production is





billed to commence in 2013. Though this development was initiated by the Koroma administration, it was popularly supported by the country's political opposition (Saltmarsh, 2011:B4).

From a critical examination of the dynamics of the Makeni land transactions, there seem to be some very critical knotty issues that have been generated. The first is the seeming lack of transparency and accountability in the entire land acquisition process. Again, there exists some form of criminal deception and trickery by the central and district governments, as well as Addax Bioenergy in the dealings with the locals. According to Mohamed Tholley (2011:PC)

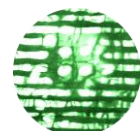
Addax promised us [landowners] a lot of good things as the host but till date nothing tangible has come to us. ...There were no direct discussions between us and Addax on the terms of the lease and use of our land. Such discussions were held by the central government and Addax without any impute or representation from us, the landowners. We don't even know the full details of the agreement. ...We understand Addax paid the government in dollars for the land and the government people paid us whatever they felt like; and this was in the local Leones, not dollars. This is a big fraud. It is very unfair. That is why we feel very offended and bitter about this.

This is rather unfortunate as the governments ought to 'protect' the people and their interests in such circumstances. In a similar voicing of resentment over the seemingly shady deal, another displaced farmer notes thus:

We [landowners] were promised full and permanent employment as workers by Addax since our means of livelihood has been taken by the company. And for those of us who are not educated, the company promised to sponsor us for skills acquisition as masonry men, electricians, carpenters and so on, that would be beneficial for us in the future. But after taking over our land Addax changed this agreement. Now the company says it will not employ anyone who is not educated, and they would only employ a few of us as temporary workers only. How many of us [rural landowners] are educated? They know we are not. This is greed and wickedness. We are not educated, but they are making use of our land for their purposes. It is all deception (Abu Kargbo, 2011:PC).

The second issue one could decipher from the arrangement is what seemed like 'deliberate' inadequate information about the activities of Addax Bioenergy in the communities, especially the destination of the eventual products. Hassan Kabia (2011:PC), a community leader from Mabilafu Village in Rochan Malal Mara Chiefdom of the Tonkolili District noted thus:

We are totally ignorant about what the end products from Addax farms would be used for or where they would be sold. All we know is that we were compelled to



leave our lands for the Addax project and the company said it would cultivate sugar cane on them. What it is for or where it is going to be used is unknown to us.

All these reflected in a clear expression of resentment, bitterness, helplessness, fear and frustration (altogether) and a total loss of faith amongst a good number of the local peoples in the touted Addax-related “development project.” The few who often showed excitement about its ‘immediate gains’, especially regarding the payment of paltry compensation for the acquired lands and/or some economic trees that would be destroyed to make way for the project, soon get disillusioned, confused and puzzled when confronted with critical questions regarding the peoples’ future means of livelihood sustenance, support and survival in the wake of this deal.

Two major concerns emanate from these cases, as in most others across Africa. First, what the people would use for future sustenance as their lands, the only source of their livelihood and living, have been negotiated away by their governments to foreign concerns. Second, how desirable it is that a critical and scarce economic resource in Africa, such as land, would be used to produce end products (biofuels and/or food) for the developed countries. In other words, crops are grown in Africa to go into the transportation tanks of Europe and not into the plates of Africa. One doubts if such a project is truly in the best interest of Africa and Africans. Furthermore, these foreign agricultural investment companies not only gain control of just the land resources in these African communities but also precious water resources (*Standard Times*, 2011). Without a doubt, these scenarios only scale up the numbers of starving people in the African continent, which is consistently rising, and thus will remain veritable sources of concern for all fair minded people across the globe.

### **Implications for Food Sufficiency and Security**

In most parts of Africa, as in most other developing countries, the majority of the population is dependent on agriculture which has remained “backward,” of low priority and often has little political influence (Fischer et al, 2009:30). Unfortunately, the reality is that there can be no progress on reducing hunger and poverty without political and resource commitment to agricultural development. It has to be the foundation of economic growth and prosperity, as has been the case elsewhere. Despite this glaring fact, many governments have been cowed into large-scale land deals with foreign concerns in the name of commercial and mechanized agriculture and rural development. On the contrary, however, such deals ultimately alienate a vast numbers of the local farmers and indigenes from their lands – often times their only source of (family) livelihood. This severely threatens the already hampered food security situation in such States.

In a Food and Agriculture Organization (FAO) document, *Trade Reforms and Food Security* (FAO, 2003:29) it was made clear that food security

exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the



application of this concept to the family level, with individuals within households as the focus of concern.

Food security, thus, revolves around availability, affordability and nutrition according to the preferences of the people. In the following sections, we are going to examine the diverse implications the large-scale land acquisitions and farming have on the locals' food sufficiency and security.

### ***Land Deprivation and Poverty Reinforcement***

Land is the crown jewel of any society. If this is relinquished, that society has put itself at the mercy of the acquirers. Despite the existence of different formal land laws across Africa, the fact remains that most of the continent's lands are already owned *de facto* by rural indigenous communities under a range of diverse tenure systems. Similarly, many of the local people, especially in rural areas, have their entire livelihoods totally dependent on *their* 'ancestral land'. It is on this same land that they used to grow food crops like cassava, rice, groundnuts, and many others, which helped them to solve our many problems and responsibilities (Fatmata Kaloko, 2011:PC). In an instance, a farmer from Malinka village of Malal Mara chiefdom explains:

The ancestral land of my people, on which our forebears grew crops for eons for their economic livelihood has been lost to Addax. Now we have no access to it any more. Remember this is the main, if not only source of my people's socio-economic well-being. Does this not amount to a "death sentence" for my people? (Yayah Sankoh, 2011:PC).

Thus, such land is often the rural dwellers' source of everyday existence and sustenance. The struggle for land ownership, like all struggles for access to any other forms of natural resource, intensifies the growing divide between "haves" and "have nots" in most developing countries, and thereby increases the level of existing poverty (Klare, 2001:24). As Kebede (2006:1) argues "the dependence of significant proportion of the world's poor on the agricultural sector makes the distribution of land in the rural areas an important issue for poverty alleviation. In particular, the access of low income rural households to adequate amount of land is crucial in sustaining their livelihoods". This is very true of many African societies, including in Ghana and Sierra Leone.

The dispossession of lands from the rural poor not only alienates them from their source of livelihood, but also reinforces socio-economic imbalance in the society: further subjects the poor into untold abject poverty and clearly orchestrates their starvation. This more so because unlike Addax's pledges to use only "marginal" lands, it is obvious and was observed from the field research that the company took large tracks of fertile and well-watered land (see also Sowa, 2011). Even when compensation is paid for such land "according to World Bank standards"<sup>5</sup> the

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<sup>5</sup> This was the claim made in the response of Addax Bioenergy to the myriads of accusations of rights abuses by several non-governmental organizations within and outside of Sierra Leone. For details see: "Addax Bioenergy



money paid these locals were “a total rip-off” (Abu Kargbo, 2011:PC), often too meagre for their up-keep and survival.

We are paid very little for our land.<sup>6</sup> You know it is from this land people of this community live and survive; how do they want us to cope with our families? There are a lot of problems and responsibilities for every family and household, without any meaningful source of livelihood and with such little compensation, paid how can we cope? (Sidi Fofanah, 2011:PC).

While an investment firm would propose advantages of their presence, many do not employ labour intensive methods, which would absorb labour and reduce unemployment, but will use capital intensive methods to increase productivity and profits for themselves. By having these small holding farmers vacated from the land, they will have their sole livelihood capacity taken away from them, forcing some to move to the urban centres in search of employment, thus radically distorting age-old traditional ways of life. In this regard, Fatmata Kaloko (2011:PC) observes that

As farmers, the people in my village leave the house early in the morning for farm work which was their main economic preoccupation. But this has changed. Now the land has been ‘seized’ by Addax with our government’s support and the people now depend only on the meagre money paid as compensation for the land that has been taken. And this is for the whole year. So many farmers now remain at home doing nothing at all while a whole lot of others have now migrated to the townships in search of paid work.

In the same vein, Beatrice Mawuena (2011:PC) has also noted similar trends in Ghana. For instance, the BioFuel Africa project was reported to have dispersed people and forced them to relocate, in many cases to urban areas in search of jobs. Tsikata and Yaro (2011) also note that many other people had their ways of life radically altered due to these development.

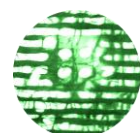
Without a livelihood, the local people cannot earn money. For instance, again, during the land preparation stage of the Alipe project (Ghana), a shea nut business woman lamented the imminent loss of livelihood:

Look at all the sheanut trees you have cut down already and considering the fact that the nuts that I collect in a year give me cloth for the year and also a little capital. I can invest my petty income in the form of a ram and sometimes in a good

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response re report alleging human rights abuses at an Addax Bioenergy project in Sierra Leone.” <http://www.business-humanrights.org/links/Repository/1006856/jump>.

<sup>6</sup> It is on record that for the lost land, a family could get between 300,000 Leones and 450,000 Leones a year. For a fair assessment of how much this “compensation” is worth, I was told a big bag (50KG) of rice costs about 170,000 Leones in the regular market.





year, I can buy a cow. Now you have destroyed the trees and you are promising me something you do not want to commit yourself to. Where then do you want me to go? What do you want me to do? (Nyari, 2008:4)

This lamentation typically conveys the untold hardships that must be expected in the households of vulnerable villages if large scale biofuels are encouraged in the country. Because shea nut business constitutes an important livelihood for women, reports of massive trees destruction frightened the people of Alipe village because the vegetation in the village is dominated by shea nut trees. As one politician in Alipe had noted, "...Shea nut is the cocoa in this community" (Boamah, 2011:9). Indeed, by referring to the cocoa wealth as a foreign exchange earner for Ghana and income generation for families engaged in cocoa farming, this politician clearly expresses the economic importance of shea nuts as a major source of livelihood for so many people in Alipe. Without a doubt, the Alipe project situation could be replicated in the several other land grabbing cases across Africa. This is how many have now lost and are losing their incomes from the forest and face a bleak future (Nyari, 2008:1).

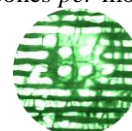
If the dispossessed locals do hold onto the less productive farms due to their alienation from their lands, food security will not be achieved. Without being able to grow their own food, they will be more vulnerable to poverty and starvation. As a palliative measure, some of these foreign agricultural firms offer to employ the landowners in their farms. But this strategy has equally been fraught with a lot of discrepancies and fraud. First, many were employed with very meagre wages: "few workers which Addax employed from my community are grossly underpaid.<sup>7</sup> ...from the meagre pay we also squeeze out money for transportation to the farm sites everyday as there is no provision for transportation for workers. This makes it totally worthless" (Osman Fullah, 2011:PC). Second, contrary to Addax's promise, which makes the locals angry and feel betrayed, those in the communities who want to remain as farmers are 'forced' to sell their labour to these new farmers (Addax Bioenergy) as casual labourers and hardly worked longer than three months. Sowa (2011:5) has observed that

In almost all the villages visited, the majority of local people employed [by Addax Bioenergy] were fired after two or three months. Usually workers are also laid off when the planting season is over and that means having to wait till the next planting season to continue with life as a farmer. This situation unleashes frustration, poverty and hunger on the unemployed casual workers who have families to feed.

As neither of the study countries have any safety nets for the vulnerable, this further exacerbates the problem. Because land as source of livelihood is denied, it often increases the risk of internal conflicts in the countries, as we shall see in the next section.

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<sup>7</sup> From fieldwork I gathered that Addax workers were paid between 300,000 Leones and 500,000 Leones *per* month.



### ***Emerging Land Use and Rights Conflicts***

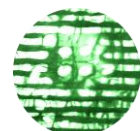
Land remains the main factor of production both in Ghana and Sierra Leone and this is based on the fact that the countries are still very much agrarian in nature. This means that land and land ownership form part of the nature of the peoples' existence and could be a source of violent struggles especially in the rural communities (Huggins and Clover, 2005; Abouhane, 1998). Indeed, land remains a predisposing factor in the escalation of violence especially across rural Africa. In explaining this connection Onyido (2011:8) argues that

...the attachment of peasants to their land is not just a mythical one. ...the typical villager recognises land in its entirety and shares it with the entire biotic complex. To him, land is a home and workplace. The land is to be "owned" as a symbol of wealth, power and prestige. It serves a social security function to most people. Any policy on land ownership and use must recognise that the very existence of some people rests on their having access to a piece of land and any attempt to squeeze this from them would be strongly resisted.

Indeed, as Derman et al (2007:2) have convincingly argued, "land rests at the centre of theories of conflict and scarcity due to its assumed growing scarcity". Due to the emotive and sensitive political nature of land issues in Africa, especially with regards to ownership, as well as right of access and use, it often triggers violent conflicts and/or revolt. However, despite governmental control over lands based on the law, the customary land tenure systems in different societies still persist, and the tension over land issues is still on. With what the locals consider their 'God-given autochthonous rights to their land' on one side and governments' land use legislations/orders on the other hand, debates have been ongoing on the legitimacy of such foreign land deals in the affected countries. Indeed, given that these large-scale land acquisitions occur in African countries with weak land governance and high corruption, their legitimacy are often questioned and contested, sometimes violently.

Toulmin (2002) has noted that land-related tensions have increased particularly in peri-urban areas where land values have risen, new interests have entered the arena, change is rapid and the poor, who depend most on continued and assured access to land for livelihood security, are especially vulnerable. Without a doubt, this description typifies, in its most apt sense, the geopolitics and socio-economics of our study communities in the present study, where the bulk of the native peasantry who depend on their ancestral land for daily survival are left outside the main thrust of government policy. Such situations of land use, rights and access changes have been known also to provoke violent conflicts across Africa (Obioha, 2005), which have led to the death of hundreds of thousands of people around the continent and the disruption of food chains and systems.

Thus, one is of the opinion that the prevailing conditions in our study communities portend an imminent violent outburst between the natives and the 'new comers' who are seen as usurpers of sort. The implications of such violent conflicts for food sufficiency and security are often dire. This position has been corroborated by the 'Study on Rural Agricultural Finance'



report which notes that if large-scale commercial farm investments continue, “a major conflict over land for subsistence food production is pre-programmed” (*Standard Times*, 2011:19). For instance, as Sowa (2011:6) aptly corroborated, most interviewees’ countenances and bitterness revealed a simmering conflict over land acquisition, the disruption of traditional sources of income, increasing poverty and failed promises. Again, such traumatic events as the food riots of 2008 and 2010 “made it amply clear that people in developing countries wanted to produce bio-energy crops on their own terms, on their own lands and for their own purposes.”<sup>8</sup> Thus, contrary to the thinking of many, a good proportion of the African peoples are aware of these trends and their varied implications. Their reactionary agencies have been and will continue to be alive to their responsibilities of protecting their rights and determining the course of events.

### ***Denial of Right to Food: Orchestrating Starvation***

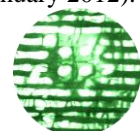
The production of food is a national sovereignty and security issue, as well as that of national food security, at least, elsewhere in the world. The mere fact that food will no longer be grown by local farmers, but by foreign firms intent on a return on ‘investments’, implies to some extent, the out-sourcing of the people’s food needs to foreigners. This is a looming problem that portends danger for food security in associated societies. Worse still, making profits for these foreign agro-firms may not be attained by selling domestically in the host country. Indeed, the proposals drawn up by the foreign farmers in both Ghana and Sierra Leone and agreed to by their local promoters suggest that the foreign farmers would primarily seek external markets for their products, whether food stuffs or biofuels produce. For this purpose, contacts were being made by the foreigners for European markets for their products (Prince Adiza, **2011:PC**; Yayah Sankoh, **2011:PC**; Osman Fullah, 2011:PC). In other words, the food sufficiency of the host country is not the priority.

Furthermore, Onyido (2011) has noted that food security is threatened by the increased drive towards export based production which threatens the lives of the majority of the poor who are without access to the means for their own social and economic reproduction. This is evidently the case for BioFuel Africa Limited (Ghana) and Addax Project (Sierra Leone) which have moved away from producing staples crops that might boost food security in the countries to food crops with biofuel capabilities. From such an action there would be two inevitable implications for the citizens and polity. The first would be the declining of local economies due to the draining of wealth out of the local communities by large outside influences and their corrupt surrogates in the governments. This is not strange for anyone who pays close attention to the politics of both countries (Philip Yao, 2011:PC; Joe Pieh, 2011:PC). The other clear implication of this action would be the total loss of citizens’ control as decisions that affect people’s lives would be made by higher levels of governments and rich/powerful groups that hardly have any interest or ties to the local communities. Indeed, these trends constitute real and immediate threat to food security in the continent.

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<sup>8</sup> “2025 – Fields for Food or Fuel? Scenarios for a New Biomass Regime,” A summary brochure of key findings of the “Fields for Food or Fuel” (FFF) Project.

<http://www.shiftn.com/Content/2025%20Fields%20For%20Fuel%20brochure.pdf> (accessed on 5 January 2012).



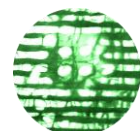
Both Ghana and Sierra Leone seem to have found it more lucrative to grow and export biofuels feedstocks to developed countries' markets at the expense of food production for their own consumption and for regional markets. In this way, biofuels development reinforces and intensifies the problem of land grabbing since an increasing expanse of land is being mapped and/or reserved for energy production instead of growing crops for food. This development also has implications for food security. Without a doubt, as more food grains and vegetable oil crops are being used to produce biofuels, world food stocks were being affected and thus, global food prices concurrently increased (Fischer et al, 2009:30). As Philip Yao (2011:PC) graphically puts it, "[A]s food goes in the tank but not into the plate. ...the number of starving people is rising."

## **Conclusion**

From our discourses, it is clear that climate change and land grabbing are increasingly tightly interconnected in ways that have implications for food and livelihood security of vulnerable peoples, especially in rural sub-Saharan African societies. Efforts at mitigating such climatic change, yet through agriculture, have equally proved a portent threat on food security for the same vulnerable populations. In this paper, we have highlighted some of their pains, fears, and needs, particularly of the farmers amongst such populations in Ghana and Sierra Leone, in response to their governments' new policy initiative which encourages large-scale land acquisitions by foreigners for agricultural purposes. These are, without a doubt, not only a major threat to local livelihoods, food security and human capital development, but a big blow to peasant agriculture and small-holder farming in these countries. This is especially so as no society can truly be called a sovereign nation if it lacks the capacity of ensuring food security for its citizens.

At the "National Dialogue on Land Grabbing" held in Pakistan (July 2011), a developing country like Ghana and Sierra Leone, "corporate farming" was chided because it was found to be damaging for developing countries' agriculture. It was concluded at that conference that such farming "would lead to food insecurity, hunger, poverty and convert the country from net food exporter to food importer..." (Shaikh, 2011:34). This is very much applicable to Ghana and Sierra Leone. A former Minister of Public Sector Reform in Ghana, Dr. Paa Kwesi Nduom, expressed his dismay over this 'foreign invasion' under the guise of investments, blaming it partly on "attempts to woo foreign investors with all manner of incentives, yet without many positive results" (*Daily Graphic*, 2007:3). Whilst such foreign 'corporate farming investment' may bring in 'quick and immediate' benefits, which are largely superficial, it comes with a threat to food security which would exacerbate hunger and poverty in the land. As Olaseinde Arigbede had critically challenged:

...do we have to sell our continent for 80 cents *per* hectare, and sell all of it including our right to food sovereignty, in order to receive some miserable crumbs designed to keep us palliated whilst we are completely ruined? We need to think about this seriously and find alternatives that work for our salvation (GRAIN, 2011).







The dangers, thus, are not just to food security and sufficiency, but in such agrarian societies as Ghana and Sierra Leone, to the economic, social and political stability of the countries themselves.

## **References**

### ***Personal Communication***

Abu Kargbo, 41 years, Male, Farmer and Trader; Wara Wanda Village, Malal Mara Chiefdom, Tonkolili District, Sierra Leone. Interviewed on 24 October 2011.

Balemini Mary Sindoliwa, 51 years, Female, Farmer and Trader; Chegu Village, Yendi Municipal District, Northern Region, Ghana. Interviewed on 7 December 2011.

Beatrice Mawuena, 63 years, Female, Trader and Woman Community Leader; Aveyime Community, South Tongu District, Volta Region, Ghana. Interviewed on 4 December 2011.

Charley Kwasi Mawusi, 46 years, Male, Farmer and Businessman; Aveyime Community, South Tongu District, Volta Region, Ghana. Interviewed on 30 November 2011.

Fafa Akpene, 67 years, Male, Community Leader and Businessman; Aveyime Community, South Tongu District, Volta Region, Ghana. Interviewed on 3 December 2011.

Fatmata Kaloko, 42 years, Female, Farmer and Trader; Laminaya Village, Makari Gbanti Chiefdom, Bombali District, Sierra Leone. Interviewed on 24 October 2011.

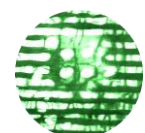
Franca Chentiwuni, 32 years, Female, Farmer; Kpalkore Village, Yendi Municipal District, Northern Region, Ghana. Interviewed on 10 December 2011.

Hassan Kabia, 47 years, Male, Community Leader and Businessman; Mabilafu Village, Rochan Malal Mara Chiefdom, Tonkolili District, Sierra Leone. Interviewed on 23 October 2011.

Jerry Mawunyega, 64 years, Male, Farmer; Aveyime Community, South Tongu District, Volta Region, Ghana. Interviewed on 2 December 2011.

Joe Semgbeh Pieh, 53 years, Male, Chairman, CSOPAD; Makeni town, Sierra Leone. Interviewed on 24 October 2011.

Mohamed Abdulahi Tholley, 38 years, Male, Farmer and Trader; Mayagbe Village, Malal Mara Chiefdom, Tonkolili District, Sierra Leone. Interviewed on 24 October 2011.





Osman Fullah, 40 years, Male, Farmer; Rumanpa Village, Makari Gbanti Chiefdom, Bombali District, Sierra Leone. Interviewed on 21 October 2011.

Philip Yao, 46 years, Male, Lecturer and Researcher; University of Ghana, Legon, Accra, Ghana. Interviewed on 12 December 2011.

Prince Banzu Adiza, 50 years, Male, Farmer and Landowner; Tijo Village, Yendi Municipal District, Northern Region, Ghana. Interviewed on 8 December 2011.

Sidi Fofanah, 35 years, Female, Farmer and Trader; Manman Village, Makari Gbanti Chiefdom, Bombali District, Sierra Leone. Interviewed on 21 October 2011.

Yayah Sankoh, 37 years, Male, Farmer and Trader; Malinka Village, Malal Mara Chiefdom, Tonkolili District, Sierra Leone. Interviewed on 23 October 2011.

### ***Literature***

Abouhani, Abdelghani. "Tribal Conflict Management in Morocco," in Okwudiba Nnoli (ed.), *Ethnic Conflicts in Africa*, Dakar: CODESRIA, 1998).

Action Aid-Ghana. "Re: The biofuel Debate: Action Aid-Ghana responds to Rural Consult's Allegations," *Daily Graphic* (6 July 2009).

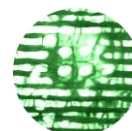
Adam, B. "Jatropha Craze Raises Concerns Over Food Security," *Public Agenda* (1 November 2010)

Ariza-Montobbio, P., Lele, S., Kallis, G. and Martinez-Alier, J. "The Political Ecology of Jatropha Plantations for Biodiesel in Tamil Nadu, India," *Journal of Peasant Studies*, Vol. 37, No. 4 (2010).

Bello, Daniel Adebawale. "Land Grabbing in Sierra Leone: Who Benefits – Farmers or Investors?," (Friday, 11 November 2011). <http://futurechallenges.org/local/land-grabbing-in-sierra-leone-who-is-benefiting-the-investors-or-the-farmers/> (accessed on 05 December 2011).

Boamah, Festus. "The relationship between land grabbing for biofuels and food security, a bane or boon? The food security implications of jatropha biodiesel project in Northern Ghana," Paper presented at the International Conference on Global Land Grabbing, Institute of Development Studies, University of Sussex; 6-8 April 2011.

Borras, Saturnino M. and Jennifer C. Franco. *Political Dynamics of Land-grabbing in Southeast Asia: Understanding Europe's Role* (Amsterdam: Transnational Institute, 2011).





Clark, William C., Patti Kristjanson, Bruce Campbell, Calestous Juma, Noel M. Holbrook, Gerald Nelson and Nancy Dickson, “Enhancing Food Security in an Era of Global Climate Change,” CID Working Paper No. 198 (July 2010).

Cline, W.R. *Global Warming and Agriculture: Impact estimates by Country* (Washington, DC.: Center for Global Development and Peterson Institute for International Economics, 2007).

Cotula, L., Vermeulen, S., Leonard, R. and Keeley, J. *Land Grab or Development Opportunity? Agricultural Investment and International Land Deals in Africa* (London/Rome: FAO, IIED and IFAD, 2009).

*Daily Graphic* Newspaper (Accra). 1 August, 2007.

Daniel, S. and Mittal, A. *The Great Land Grab* (Oakland, CA: The Oakland Institute, 2009).

Derman, William; Odgaard, Rie and Sjaastad, Espen (eds.). *Conflicts Over Land and Water in Africa* (West Lansing, MI: Michigan State University Press, 2007).

Evans, Alex. “Land grabs meet climate policy,” (4 June, 2010). <http://www.commercialpressuresonland.org/press/land-grabs-meet-climate-policy> (accessed on 14 April 2011).

Fischer, Günther, Eva Hizsnyik, Sylvia Prieler Mahendra Shah and Harrij van Velthuisen, *Biofuels and Food Security* (Vienna and Schlossplatz: The OPEC Fund for International Development (OFID) and International Institute for Applied Systems Analysis (IIASA), 2009).

Food and Agriculture Organization (FAO). “Climate Change, Bioenergy and Food Security: Options for Decision Makers Identified by Expert Meeting,” paper prepared for the high-level conference on *World Food Security: The Challenges of Climate Change and Bioenergy*; Rome, 3-5 June 2008.

Food and Agriculture Organization (FAO). *Trade Reforms and Food Security: Conceptualizing the Linkages* (Rome: FAO, 2003).

Friis, Cecilie and Anette Reenberg. “Land Grab in Africa: Emerging Land System Drivers in a Teleconnected World,” GLP Report No. 1. GLP-IPO, Copenhagen (2010).

Gavin, R.J. and J.A. Betley. *The Scramble for Africa* (Ibadan: Ibadan University Press, 1973).





*Ghana Business News*. “Ghana goes Biofuel, despite Global Food Crisis: the Case of Scan Fuel Investment in Jatropha in the Asante Akim North District of Asante Region.” <http://www.ghanabusinessnews.com/2008/12/06/ghana-goes-biofuel-despite-globalfood-crisis/> (accessed on 10 July 2011).

GRAIN. “Seized: The 2008 Land Grab for Food and Financial Security,” *GRAIN Briefings*, (October 2008). <http://www.grain.org/briefings/?id=212> (accessed 28 May 2010).

GRAIN. “Nigerian farmer leader talks about resistance to land grabs,” an interview with Olaseinde Makanjuola Arigbede of the United Small and Medium scale Farmers’ Associations of Nigeria (USMEFAN) (11 August 2011). [http://www.grain.org/bulletin\\_board/entries/4340-nigerian-farmer-leader-talks-about-resistance-to-land-grabs](http://www.grain.org/bulletin_board/entries/4340-nigerian-farmer-leader-talks-about-resistance-to-land-grabs) (accessed on 21 August 2011).

Green Scenery. “Land Investment Deals in Sierra Leone,” *Green Scenery Briefings* (Part I-IV) (Freetown: Green Scenery, September 2011).

Hong, Kevin C. “How to Create Win-Win Land Deals in Mozambique: Strategic Review of Daewoo Land Deal in Madagascar as a Case Study,” INAF U6355 Globalization (School of International and Public Affairs, Columbia University, 2011).

Huggins, Chris and Jenny Clover. “Introduction,” in Huggins, Chris and Jenny Clover (eds.) *From the Ground Up: Land Rights, Conflict and Peace in Sub-Saharan Africa* (Pretoria: Institute for Security Studies, 2005).

Intergovernmental Panel on Climate Change (IPCC). “Climate change 2001: impacts, adaptation, and vulnerability,” Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge, UK: Cambridge University Press, 2001).

Kebede, B. “Land reform, distribution of land and institutions in rural Ethiopia: Analysis of inequality with dirty data,” Centre for the study of African Economics Working Paper 05 (2006), University of Oxford.

Kisseih, Amanarh. “Aveyime Rice Project: Matters Arising,” (nd). <http://business.myjoyonline.com/pages/news/200712/11239.php> (accessed on 12 December 2011).

Klare, Michael T. *Resource Wars: the New Landscape of Global Conflict* (New York: Metropolitan Books, 2001).







Maltsoglou, Irini and Yasmeeen Khwaja (eds.). “Introduction,” in *Bioenergy and Food Security: The BEFS Analysis for Tanzania* (Rome: FAO and Food Security Project, 2010).

Manning, Richard. *Food’s Frontier: The Next Revolution* (New York: North Point Press, 2000).

Matondi P., Håvnevik, K., Beyene, A., (eds.) *Biofuels, Land Grabbing and Food Security in Africa* [Africa Now Series] (London: Zed Books, 2011).

Mbow, Cheikh. “Africa’s Risky Gamble.” *Global Change*, No. 75 (June 2010).

Meinhold, Bridgette. “World’s Largest Solar Project Planned for Saharan Desert” (22 June 2009). <http://inhabitat.com/worlds-largest-solar-project-sahara-desert/> (accessed on 10 January 2012).

Mensah, Yao Adjei. “Aveyime Rice Project: the way forward,” (4 May 2008). <http://www.modernghana.com/news/164287/1/aveyime-rice-project-the-way-forward.html> (accessed on 10 January 2012).

Nyari, Bakari. “Biofuel Land Grabbing in Northern Ghana.” Report by Regional Advisory and Information Network Systems (RAINS) (2008). [www.gaiafoundation.com](http://www.gaiafoundation.com) (accessed on 1 August 2008).

Obioha, Emeka E. “Climate Change, Population Drift and Violent Conflict Over Land Resources in North Eastern Nigeria,” paper presented at an International Workshop on “Human Security and Climate Change”, Holmen Fjord Hotel, Asker, near Oslo, (21- 23 June, 2005).

Odoemene, Akachi. “White Zimbabwean Farmers in Nigeria: Issues in “New Nigerian” Land Deals and the Implications for Food and Human Security,” presented at the international conference on “*Africa for Sale: Analysing and Theorizing Foreign Land Claims and Acquisitions*”, Groningen University, the Netherlands (28 and 29 October 2010).

Onyido, Ikenna. “Land Reform, Agriculture and Food Security in Nigeria,” (Monday, 07 March 2011). <http://www.mouau.edu.ng/handbook/eloquent-testimony-purposeful-leadership-2006-2011/7-part-four-further-papers-economic-0> (accessed on 30 August 2011).

Parry, Martin; Cynthia Rosenzweig; Matthew Livermor. “Climate Change, Global Food Supply and Risk of Hunger,” *Philosophical Transactions: Biological Sciences*, Vol. 360, No. 1463 (November 2005).

Paul, Helena, Almuth Ernsting, Stella Semino, Susanne Gura and Antje Lorch. “Agriculture and Climate Change – Real Problems, False Solutions,” Report published for the Conference of the





Parties, COP15, of the United Nations Framework Convention on Climate Change in Copenhagen (December 2009).

Ringler, C., Zhu, T., Cai, X., Koo, J. and Wang, D. “Climate Change Impacts on Food Security in Sub-Saharan Africa: Insights from Comprehensive Climate Change Scenarios,” IFPRI Discussion Paper 01042 (December 2010).

Saltmarsh, Mathew. “Swiss Commodities Trader Expands Into Ethanol in Africa,” *The New York Times* (15 June, 2011).

Shah, M., A. Xepapadeas, R.E.M. Entsua-Mensah, G. Fisher, A. Haslberger, F. Jensen, M.M.Q. Mirza, E. Sartzetakis and H. Simons. “Food and Ecosystems,” in *Ecosystems and Human Well-Being: Policy Responses* (Volume 3: Findings of the Responses), Working Group, Millennium Ecosystem Assessment Series (Washington DC: Island Press, 2005).

Shaikh, Saleem. “Land Grabbing, Corporate Farming to Deepen Hunger, Poverty, and Unemployment,” *Pakistan Times* (Moot Press), (Tuesday, 5 July 2011).

Sowa, Lansana Hassan. “Land Grabbing Undermines Food Security in West Africa,” an unpublished report and presentation of the Sierra Leone Network on the Right to Food (SiLNoRF) with a case study on Addax Bioenergy (SL) Limited (August 2011).

*Standard Times* Newspaper (Sierra Leone), Thursday, October 20, 2011.

Toulmin, Camilla. “Negotiating Access to Land in West Africa: Who is Losing Out?,” paper presented at the African Studies Association UK Biennial Conference, Birmingham, UK (9-11 September 2002).

Tsikata, Dzodzi and Yaro, Joseph. “Land Market Liberalization and Trans-National Commercial Land Deals in Ghana since the 1990s,” Paper presented at the International Conference on Global Land Grabbing, Institute of Development Studies, University of Sussex; 6-8 April 2011.

United Nations (UN). “Opportunities and Challenges of Biofuels for the Agricultural Sector and the Food Security of Developing Countries,” United Nations Conference on Trade and Development (GE.08-50299). New York and Geneva, 2008.

United Nations Development Programme (UNDP). *Human Development Report 2007/2008 – Fighting Climate Change: Human Solidarity in a Divided World* (New York: UNDP, 2007).

von Braun, Joachim and Meinzen-Dick, Ruth. “Land Grabbing” by Foreign Investors in Developing Countries: Risks and Opportunities,” *IFPRI Policy Brief* No. 13, (April 2009).





von Braun, Joachim. “Impact of Climate Change on Food Security in Times of High Energy Prices,” a background paper prepared for the International Centre for Trade and Sustainable Development (ICTSD) and the session titled *Agriculture, Climate Change and Sustainable Development* at The Future of Agriculture: A Global Dialogue amongst Stakeholders; Barcelona, 30th and 31st May 2008.

von Braun, Joachim. “The world food situation – new driving forces and required actions,” IFPRI *Food Policy Report* (Washington DC, 2007).

Walt, Vivienne. “The Breadbasket of South Korea: Madagascar,” *Time World* (Sunday, 23 November, 2008). <http://www.time.com/time/world/article/0,8599,1861145,00.html> (accessed on 21 September 2010)

Watson, R.T., Noble, I.R., Bolin, B., Ravindranath, N.H. and Verardo, D.J. (eds.) “Land Use, Land-use Change, and Forestry.” Special report of the intergovernmental panel on climate change. (Cambridge, UK: Cambridge University Press, 2000).

