



# UNDERSTANDING LAND INVESTMENT DEALS IN AFRICA

## THE ROLE OF FALSE CLIMATE CHANGE SOLUTIONS

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### Overview

In the trend of large-scale agricultural land acquisitions in Sub-Saharan Africa “green investments” such as the production of agrofuels and agroforestry developments, are upheld as climate solutions, and are being used to justify, promote, and accelerate massive land grabs. Yet, even as research indicates that the expansion of industrial agriculture on African soil is likely to aggravate the heating of the planet, market mechanisms like carbon trade and carbon credits are providing a “green cover” for current land grabs.

Agrofuel production and the development of carbon credit generating projects are profitable initiatives for corporations, investment funds, and even governments, while they actually deepen the ongoing hunger crisis on the continent. Such projects are likely to increase with time and stimulate land grabs at an unprecedented scale if no action is taken to demystify false climate change solutions – a major element in the land grab crisis in Africa.

The average temperature of the earth’s surface has risen by 0.74 degrees C since the late 1800s. It is expected to increase by another 1.8° C to 4° C by the year 2100 - a rapid and profound change - should the necessary action not be taken. Even if the minimum predicted increase takes place, it will be larger than any century-long trend in the last 10,000 years.

The principal reason for the mounting thermometer is a century and a half of industrialization: the burning of ever-greater quantities of oil, gasoline, and coal, the cutting of forests, and the practice of certain farming methods.

These activities have increased the amount of “greenhouse gases” in the atmosphere, especially carbon dioxide, methane, and nitrous oxide. Such gases occur naturally - they are critical for life on earth, they keep some of the sun’s warmth from reflecting back into space, and without them the world would be a cold and barren place. But in augmented and increasing quantities, they are pushing the global temperature to artificially high levels and altering the climate. Eleven of the last 12 years are the warmest on record, and 1998 was the warmest year.

United Nations Framework Convention on Climate Change, [http://unfccc.int/essential\\_background/feeling\\_the\\_heat/items/2917.php](http://unfccc.int/essential_background/feeling_the_heat/items/2917.php)



## Industrial Agriculture on the Rise

Worldwide, agriculture production contributes 13.5% of global green house gas emissions (GHG).<sup>1</sup> Most of these global warming emissions are generated by intensive large-scale agriculture, such as the kind currently under way due to recent land deals in Africa.<sup>2</sup> While the precise impact of the rapid growth of land acquisitions in Africa (estimated at 40 million hectares by 2009 alone)<sup>3</sup> on global GHG emissions is yet to be documented, research shows that these land deals will employ intensive agriculture methods, which will increase global emissions of green house gases.<sup>4</sup>

The largest emitters of GHGs from global agriculture are methane (CH<sub>4</sub>) and nitrous oxide (NO<sub>2</sub>), which account for 52% and 84% of the total global methane and nitrous oxide emissions.<sup>5</sup> Nitrous oxide is emitted from fertilizers, the use of which has increased along with the intensification of agriculture over the last century. Some estimates say that fertilizer use has increased by 800% in the last 45 years.<sup>6</sup> Nitrogen based fertilizers also require large amounts of fossil fuels for production. The FAO estimates that the use of fossil fuels to produce fertilizers could emit 41 million tons of CO<sub>2</sub> every year.<sup>7</sup>

Emissions from farm machinery are significant with some estimates showing that farm machinery already emits the equivalent of 158 million tons of CO<sub>2</sub> per year. The burning of fossil fuels to deliver the water needed for large-scale irrigation also emits upwards of 369 million tons of CO<sub>2</sub> into the atmosphere. Emissions from machinery and irrigation systems combined outpace Australia's total GHG emissions for 2008.<sup>8</sup> These figures paint a disturbing image of the impact of industrial farming and show that if there is a sharp growth in the number of highly mechanized farms with intensive fertilizer and irrigation systems, GHG emissions will rise significantly.

## Agrofuels Production<sup>9</sup>

Agrofuels, produced on a large scale by agribusinesses and promoted by many governments and institutions as a solution to the world's dependence on fossil fuels, have become a driver of land grabs in Africa. Many governments and corporations have worked together to develop agrofuel projects under a "green" investment label. It is estimated that as of 2010 approximately 5 million hectares of land in Africa was slated to grow agrofuels.<sup>10</sup> However, these numbers are conservative estimates that do not take into account that some crops such as corn and palm are designated as forestry or food production although they could be destined towards corn ethanol and palm oil.

The proportion is even higher in countries like Mali, where, 9 of 22 major land leases identified by the Oakland Institute in 2010 had been allocated for the production of agrofuel crops.<sup>11</sup> Some reports estimate that the agrofuel land rush in Sub-Saharan Africa has led to the establishment of at least 100 projects by about 50 companies. Actual figures are likely higher given the lack of precise data on land acquisitions in Africa.<sup>12</sup> One thing is clear: land deals involving agrofuel crops can reach gigantic proportions. In one case, 2.8 million hectares of land in the Democratic Republic of Congo have been acquired by the Chinese government for palm oil production.<sup>13</sup> In another, the British bioenergy company, Crest Global Green Energy, controls 900,000 hectares combined in Mali, Guinea, and Senegal.<sup>14</sup>

In recent years, African governments and institutions such as the African Union have encouraged business investment in agrofuels.<sup>15</sup> In addition, the developed world's demand for agrofuels is being stimulated by the United States and the European Union which have set targets to replace 30% and 10%, respectively, of their gasoline with agrofuels.<sup>16</sup> US Secretary of Energy Steven Chu has stated that the American investment in agrofuels is designed to "end [our] dependence on foreign oil and address the climate crisis."<sup>17</sup> A study by the Institute for European Environmental Policy estimates that the European Union target may result in 7 million hectares to be used for the production of agrofuels.<sup>18</sup>

The majority of agrofuel crops produced in Africa are destined for exports and there is little investment in domestic refineries and other infrastructure to ensure that a share of agrofuel production and supply remains in the source country.<sup>19</sup> The focus on exports results from the control of the agrofuel supply chain by multinational agribusinesses which profit from integrating investments that range from agrofuel production to car manufacturing.<sup>20</sup> These businesses specialize in extracting primary resources in developing countries in order to sell industrial products in the developed world. One example is Finnish corporation Neste Oil, which procures agrofuel crops from Africa, South America, and Southeast Asia and processes them into biodiesel for the aviation industry; all the while "greenwashing" the fact that it is also one of the largest producers of petrochemicals in the world.<sup>21</sup>

Policymakers and the bioenergy industry have promoted agrofuels as a sustainable clean energy source.<sup>22</sup> This belief places agrofuels in the category of "green" investment and makes them eligible to generate carbon credits, delivering additional profits from carbon trade (described below). However, agrofuels are neither sustainable nor low-carbon. Agrofuel crop monocultures require large amounts of water,



nutrients, and pesticides, and most agrofuel refineries and transportation methods still rely on oil and coal. In addition, agrofuel can be processed into biodiesel, which fuels the same standard diesel engines whose emissions contribute to climate change.

*It is estimated that the conversion of rainforests and native grasslands into fields to produce agrofuel crops will release between 17 to 420 times more CO<sub>2</sub> than the amount of greenhouse gas emissions that would be reduced following the replacement of fossil fuels with agrofuels. In fact, the increase in agrofuel use may release between 44 and 73 million additional tons of CO<sub>2</sub> equivalent per year.<sup>23</sup> This amount is equivalent to the annual CO<sub>2</sub> emissions of a small European country such as Austria and larger than the individual emissions of many developing countries.<sup>24</sup> Agrofuel production thus increases rather than decreases greenhouse gas emissions.*

## Carbon Trade

Another driver of land grabs in Africa today are carbon trading and credit schemes which are also promoted as “green” solutions to climate change. The trade in carbon credits involves corporations and governments buying and selling credits in one part of the world in order to continue polluting domestically. Carbon trading not only assigns rights to developed countries and corporations to pollute, but also represents what some are calling “global climate malgovernance.”<sup>25</sup> This system contributes to environmental and human rights violations, since many of the “green” activities promoted, whether certified to generate credits or not, can actually increase the profitability of a polluting business while creating environmental damage and evicting people from their land.

Aside from agrofuel projects, one source of carbon credits consists of land use and forestry initiatives such as reforestation. These projects can earn carbon credits through regional and global carbon trading schemes. The biggest carbon trade framework operates under the United Nations through the Kyoto Protocol that governs a carbon offset scheme called Clean Development Mechanism (CDM), which is partly designed to lower the cost of compliance to emission targets for developed countries. CDMs offer developed countries the opportunity to offset their own emissions by

making certain investments in the developing world.

Another emerging practice is the promotion of soil carbon markets as an effective process for capturing and storing CO<sub>2</sub> in the soil. The premise behind this process is to minimize carbon loss and maximize the retention of carbon in the soil by either leaving soil untouched, thereby not releasing the carbon held within into the atmosphere, or by planting cover crops.

Carbon credits are highly profitable for agribusinesses and carbon market speculators, which gain by selling carbon to other polluting businesses that consider carbon credits a cost-effective method to keep their production processes status quo. In addition, it is often cheaper for a polluting multinational corporation to invest in a CDM project of reforestation in Africa to offset its own emissions than to adopt a truly sustainable business model. For example, for a corporation that owns coal plants in the developed world to comply with certain emission levels, that corporation would not only have to invest in more advanced technology such as improved filters, but would probably also have to scale back operations, increasing costs and losing potential profits. It is more cost-effective for this corporation to invest in a CDM project in reforestation in the developing world, where many countries offer easy access to financing to attract foreign direct investment, in order to acquire enough credits to offset the coal plant operations without having to change its business practices. Since carbon credits offer so many opportunities for investors, the number of business-led CDM projects that involve vast land resources in Africa is growing. Recent estimates show that the global carbon market is now worth over \$140 billion<sup>26</sup> and it is expected to increase in value, although only a very small share of this wealth is reinvested in the South. To put this into perspective, the value of the global carbon market is now equal to the gross domestic product of New Zealand.

Some land intensive CDM projects consist of afforestation activities. For example, a Norwegian timber company, Green Resources Ltd, plans to replace almost 7,000 hectares of natural Tanzanian grassland with monocultures of pine and eucalyptus. This project is not only negatively impacting the area’s biodiversity, but it has already displaced local smallholders and created only a few jobs that do not correspond to the company’s promises of development.<sup>27</sup> In Sierra Leone, SLGreen Oil has acquired 40,468 hectares for biodiesel production that will generate carbon credits through the CDM.<sup>28</sup> Canadian corporation Sierra Gold has obtained 45,527 hectares of forest and grasslands destined for carbon credit programs,<sup>29</sup> including a land-use CDM project that is expected to be worth more than \$714 million over 50 years.<sup>30</sup> Sierra Gold plans to use the revenue from carbon trade to



expand its mining operations in the region.<sup>31</sup> The result is that the carbon credit revenues from a UFCCC approved project destined towards mitigating climate change will be used to finance the development of gold mines, which cause other environmental impacts including carbon dioxide emissions. In fact, it is estimated that the aluminum and non-ferrous metals mining industry alone, which includes gold mining, is responsible for 1.4% of global greenhouse gas emissions.<sup>32</sup> Other mining activities such as coal mining are responsible for even higher percentages. The use of CDM projects by the mining sector seeks cost-saving and “greenwashing” through so-called “green” investment in the developing world.

*There are serious concerns over the ability of afforestation projects and market-based offsets to deliver benefits for the rural poor in Africa. These new market-based instruments seem rather to create more incentives for large agribusiness to acquire land, which adds new threats to the livelihoods of smallholders, pastoralists and other rural poor in Africa.<sup>33</sup>*

## Jeopardizing Food Security While Pretending to Stop Climate Damage

The rapid increase in land investment deals around the world comes as a result of investors seeing opportunities to capitalize on skyrocketing food prices and demand for agrofuel crops. This phenomenon, bolstered by carbon trading schemes, threatens biodiversity and the livelihoods of local populations, especially indigenous communities, who are displaced to make room for such projects. Private investors and corporations are increasingly in control of land and resources that could feed a continent plagued by hunger. Most of the African countries targeted by investors and corporations for carbon trade and agrofuel investment are affected by hunger and undernutrition: for instance, Sierra Leone is ranked 79<sup>th</sup> out of 84 countries on the 2010 Global Food Index;<sup>39</sup> the same index indicates that Tanzania is facing an alarming hunger situation, while every single year, in South Sudan and Ethiopia, millions of people rely on international food aid for their survival.<sup>40</sup>

With food security being one of the biggest impacts of climate change, the tragedy here is that market-based solutions pretending to address the warming planet, are themselves causing great environmental damage and the deepening of a hunger crisis in Africa.

## REDD: Expanding Carbon Trade

A proposal known as “Reducing Emissions from Deforestation and Forest Degradation” (REDD) may make land an even more valuable asset in the carbon market by treating land and forests as speculative commodities. Since the United Nations includes tree monocultures and clearcuts in its definition of “forest,” this mechanism will further increase the threat against biodiversity and the local populations whose livelihoods depend on access to land and forests. Although not yet fully integrated into the UN carbon trading scheme, REDD projects already generate carbon credits through the voluntary carbon market.<sup>34</sup> In 2010, a reforestation project in Tanzania involving the conversion of grassland into eucalyptus and pine plantations was the first REDD project to issue carbon credits.<sup>35</sup> The project covers an area of 7,250 hectares in the Uchindile district and 3,560 hectares in the Mapanda district and is being promoted by the Carbon Neutral Company in order to generate at least 232,264 carbon credits.<sup>36</sup> If the REDD mechanism becomes integrated into the UN-backed carbon market, it will lead to governments and corporations seizing control of forest areas, especially in Africa, where the forests sink over 1.2 billion tons of CO<sup>2</sup> annually.<sup>37</sup> The expansion of the carbon credit system will generate billions of dollars in profits through the commodification of air and forests, but is likely to turn into a disaster for communities in Africa and the environment. As warned by several civil society organizations, “Carbon traders eager for the large sums of money offered by REDD schemes are already forcing Indigenous and forest-dependent Peoples to sign away their land rights.”<sup>38</sup>



## ENDNOTES

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