

## **EARTH, WATER & JUSTICE: A Note by the Society of African Earth Scientists on the Environmental Effects of Land Grabbing**

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### **Abstract**

This brief note inspired by the reports of other agencies, aims to define land grabbing as pertains to Africa and outline the scientific and ethical case against African governments allowing land grab that threatens soil fertility, water and food security. The paper also highlights the weakness of the CDM in providing a loophole to avoid direct reduction of emissions and leading to increased land grabbing.

The note concludes with recommendations urging African government to exercise due diligence in protecting the rights and best interests of their citizens, and dissuading them from the danger of forfeiting the lands and birthright of current and future African generations.

**Key words:** Land grab, environmental effects, water security, soil fertility, food security, hydrology, CDM (Clean Development Mechanism), groundwater

### **Introduction**

Land grabbing may be defined as the buying or leasing of large areas of land by local or international corporations in developing countries; often resulting in the eviction of indigenous people from their ancestral homeland, or family land owned through customary land tenures established over generations.

This brief note, inspired by the reports of African Biodiversity Network (CDM and Africa [11]), Friends of the Earth (Land, Life and Justice [6]) and others, sketches an outline of the scientific and ethical case against land grab, specifically in respect of its serious threat to Africa's water security, soil fertility and biodiversity, and food security. It also highlights the injustice of the Clean Development Mechanism (CDM) scheme, proposed as part of the famous Kyoto Protocol. As noted in the report of the African Biodiversity Network, rather than serving as an honest vehicle for development, the CDM serves as a motivating factor in land grabbing.

It is hoped that this note, with its essential recommendations, will help dissuade African governments from giving away the most precious birthright of Africa's children and future generations: our land and the natural resources within it. Land grabbing has few or no benefits for Africans, but numerous dangers:

### **Land Grab Threatens Water Security**

A recent report by GRAIN [1] warns that land grabbing will alter the hydrological balance of the local environment and have an adverse effect on local community water supplies in Africa. The reason for this is that the high water demand envisaged for irrigation of

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crops planted on land grabbed farms, is expected to exceed that available in local rivers and local groundwater [2]. In some instances the rate of groundwater exploitation will far outstrip the rate of groundwater recharge [3], leading to the significant depletion of the water table in local aquifers [4].

There are already many documented instances where pesticides and fertilizers used on large scale farming contaminates the groundwater supplies and denies access to clean water to local communities[5].

Most of the prevention of access to local water resources has occurred through the forcible displacement of peoples from the land they have lived on and farmed for many generations (according to customary land tenure). Forced displacement has separated people from the land from which they draw their water. In cases where people have not been physically removed from their land, their access to nearby water wells is being barred by force [6] under the new land acquisitions and arrangements.

### **Land Grab Threatens Biodiversity and Soil Fertility**

Land grab farming tends to be in the pattern of large scale monoculture[7], whereby the fertile soil is more prone to be eroded and lost forever, as mono-cultural planting means that for part of the season, the soil is not protected from soil erosion by rainfall by the canopy of other crops; whilst in the case of mixed cropping (where various species of crops are planted together) there is year-round protection for the soil due to the fact that not all the crops, with canopies shielding the soil from the rain, are harvested at once[8].

### **Land Grab Threatens Food Security**

Through land grabbing, many African people belonging to traditional farming families have been dispossessed of their land and the means to grow food for their families to survive [9]. Often the lands acquired were then used for agro-fuel crops instead of food crops [10]. The switch from food crops to agro-fuel crops threatens the food security of not only the dispossessed communities, but the country and the region through the depletion of local subsistence farming capacity.

### **The Clean Development Mechanism (CDM) as a Motivation for Land Grabbing and a Loop Hole for Industrialised Economies to avoid direct cuts to Carbon Emissions**

Documents published by the African Biodiversity Network [11] , Friends of the Earth and others[12] clearly highlight the view that CDM motivates land grabbing.

Through the disingenuous mechanism that is CDM the industrialised countries show their reluctance to adopt

- i) political and economic responsibility for meeting their own climate change targets
  - ii) social and economic responsibility to change their pattern of over-consumption
- CDM has created a dangerous loophole for the industrial economies to avoid cutting greenhouse gases. Instead of effectively passing on the responsibilities of the industrial north to cut greenhouse gases on to the poorer countries of the south by “offsetting” its carbon emissions against carbon absorbed by tree planting in Africa and other regions, large industrial corporations should be making their best efforts to cut their own emissions . Africa and other regions are bearing the cost in the form of land grabbed for

the purpose of tree planting to offset carbon emissions of large corporations. Above we see the environmental devastation resulting from this activity.

Furthermore, as Friends of the Earth note in their report; the industrial north has the challenge of tackling its own habits of drastic over-consumption to a level that is in sync with the sustainability of the Earth and its ecosystem.

### **Essential Recommendations for Action by African Governments**

Whilst the behaviour of investors in Africa's land grab that results in the destruction of African livelihoods and environment is to be condemned; Society of African Earth Scientists (SAES) can only make essential recommendations that address the governments of Africa, who ultimately hold the reigns of control over the leasing and sale of African land and have the sacred responsibility of protecting their citizens and ensuring a prosperous future for the people of Africa. The essential demands include

- a) African governments should protect the rights of African citizens with customary land tenure. No African citizen should be made homeless from their ancestral home.
- b) African governments should protect Africa's precious water resources, both its rivers and its groundwater resources
- c) African governments should protect Africa's natural forests and the rights of its indigenous peoples
- d) African farming must aim to be agro-ecological and sustainable [13], prioritising food production and avoiding the production of agro-fuels and other large scale monoculture plantations motivated by carbon emission trading, which deplete the soil's fertility, threaten food security, and the long term biodiversity and sustainability of the environment.

### **References**

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[2] The term "groundwater" refers to water that lies below the natural ground surface

[3] A hydrologic process where water moves downward from surface water to groundwater.

[4] An aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, or silt) from which groundwater can be usefully extracted.

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