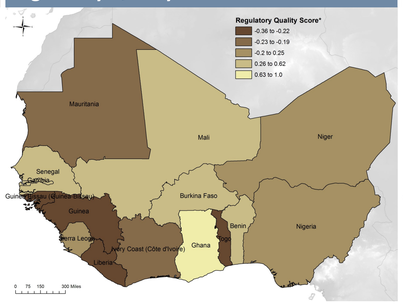
Poverty, Governance, and Land Grabbing In West Africa

Introduction

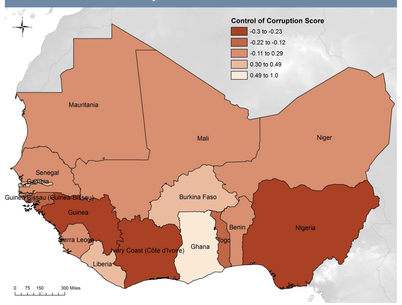
Global population growth, changing diets, and increasing demand for biofuels has increased the pressure placed on the global land and water resource base to produce sufficient food and fiber. As a result, many countries and corporations have begun investing in large swaths of arable land around the globe, as evidenced by the large increase in the number of transnational land deals, or "land grabs", brokered in the past decade. Recent studies have shown that land and water grabbing is occurring at an alarming rate in nearly every country in the world except Antarctica (Rulli et al., 2013). In addition, there is evidence that land grabs occur more frequently in countries with weak legal and political structures, and with high levels of poverty and disenfranchisement. Here, six sociopolitical determinants of vulnerability to land grabs are mapped for the fifteen countries of West Africa. A final vulnerability analysis, based on combined data from the six separate determinants, is shown, and the implications of this result are discussed.

Area of Interest

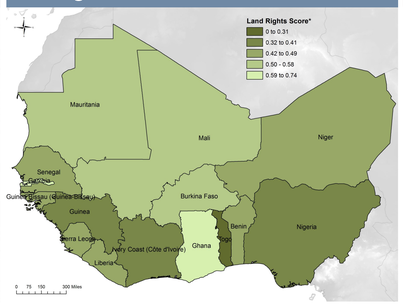
Regulatory Quality



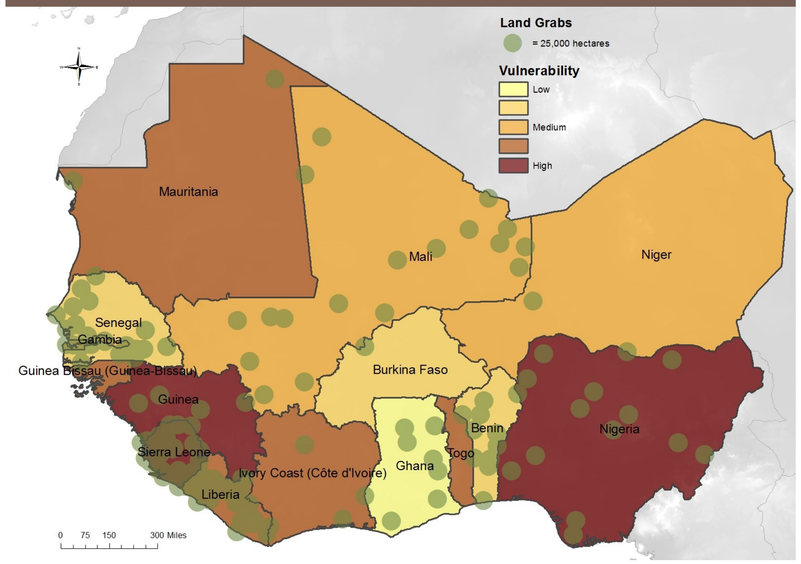
Control of Corruption



Land Rights



Vulnerability to Land Grabs and Area of Land Actually Purchased



Background

As countries and corporations have realized the value of land in the midst of increasing global demand, the number of transnational land deals has increased dramatically. Since 2005 over 47 million hectares of land were purchased worldwide, and the frequency of these transfers spiked following the 2007-2008 food price crisis (Rulli et al., 2013). This unprecedented increase in land transfers has been dubbed "land grabbing" by the popular press, and has since become a topic of great concern.

Often considered a way for foreign governments and corporations to meet their food and energy requirements, land grabbing can, in some cases, be a violation of human rights, as land is often acquired without prior consent of pre-existing land users, and with no consideration of the social and environmental impacts.

A recent World Bank report showed that these large land transactions vary greatly in their impact on local communities, and can be beneficial if decisions are democratically made, land rights are respected, and just compensation is provided. This is often not the case.

Although the utilization of the acquired land varies, recent data show that a large percentage of it is being used to grow crops for biofuel production, such as oil palm. Others parcels lie fallow, and are considered to be little more than strategic investment.

Country	HA transferred	Major Investor
Benin	268,300	Italy
Burkina Faso	n/a	n/a
Ghana	210,461	United Kingdom
Guinea	106,415	United Kingdom
Guinea-Bissou	n/a	n/a
Ivory Coast	47,000	Singapore
Liberia	649,800	Singapore, Malaysia
Mali	473,334	Libya, Saudi Arabia
Mauritania	52,000	Saudi Arabia
Niger	15,922	Saudi Arabia
Nigeria	362,292	United Kingdom
Senegal	375,570	India, China
Sierra Leone	705,450	Vietnam, Portugal
Togo	n/a	n/a

Methodology

After conducting a literature review to determine which indicators might be used to predict a country's vulnerability to land grabs within their borders, a list of six relevant sociopolitical indicators were decided upon, and relevant data was collected from various sources. Data for each of the fifteen West African countries was then consolidated into tabular form and entered into ArcMap.

This data was then used to create a choropleth map for each of the six indicators, in which the color of each country is indicative of its value for the indicator being mapped. For each map, dark colors indicate high vulnerability, while lighter colors indicate lower vulnerability.

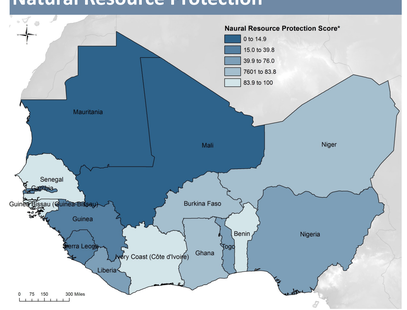
Finally, the value for each of the six indicators were combined in the following way:

Reg Qual + Cont Corr + Land Rts +
NR Prot + Rule Law – Pov = Vulnerability

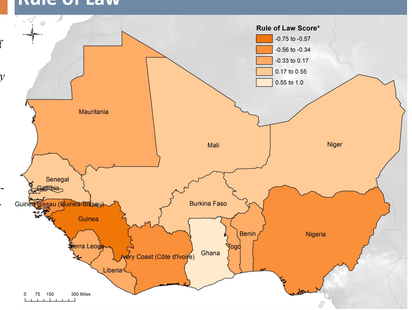
The output of this equation was then used to make a final map of the overall vulnerability of each country to land grabs. As with all other maps, dark colors indicate high vulnerability, and light colors indicate low vulnerability.

Lastly, land acquisition information from an online database was used to create a dot density map showing the total number of hectares transferred in large scale land purchases in the past five years. When displayed together with the vulnerability map, this allows for the visualization of the relationship between vulnerability, as measured by the six sociopolitical and economic variables, and the actual prevalence of land grabbing.

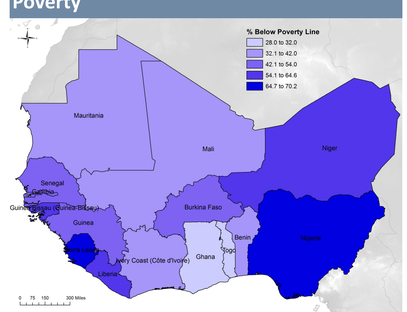
Natural Resource Protection



Rule of Law



Poverty



References

Background

Fortin, E. (2005). Reforming land rights: The World Bank and the globalization of agriculture. *Social and Legal Studies,* 14(2), 147-177

Jacobs, S. (2009). Gender and land reforms: Comparative perspectives. *Geography Compass,* 3(5), 1675-1687

Lastarria-Cornhiel, S. (1997). Impact of privatization on gender and property rights in Africa. *World Development,* 25(8), 1317-1333

Owusu, G.A. (2008). Gender, land tenure dynamics and livelihood: A comparison of the Central and Volta Regions of Ghana using logistical regression analysis. *Studies in Gender and Development in Africa.* 1(2008), 34-57.

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

Rulli, M.C., Saviori, A., D'Odorico, P. (2013). Global Land and Water Grabbing. *Proceedings of the National Academy of Science.* 110(3), 892-897

World Bank, World Development Report 2008: Agriculture for Development (World Bank, Washington, DC, 2008).

GIS Layer Sources

Basemap: ESRI World Shaded Relief; Country Outlines: www.geodan.nl

Indicator Data Sources

Regulatory Quality, Control of Corruption, and Rule of Law Scores: The World Bank World Reference Indicators

Land Rights and Access Score: International Fund for Agricultural Development

Natural Resource Protection: Columbia University, Natural Resource Management Index

Poverty Level: The World Bank

Land Acquisitions: GRAIN

Photos: People - fotopedia.com; Beef - flickr.com; Biofuels - fotopedia.com

Cartographer: Elliot Hohn
Class: Intro to GIS
Instructor: Brandon Olsen
Date: May 1, 2013

Projected Coordinate System: Transverse Mercator (Mauritania 1999 UTM Zone28N)

Why is land and water grabbing a "thing"?

Increasing pressure on agricultural land base and rising food prices due to:

Growing Population

With a population expected to reach 9 billion by mid-century, global food production will have to increase by at least 70 percent in order to meet the growing demand (World Bank, 2008).

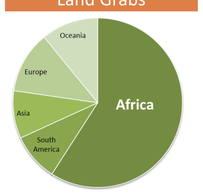
Changing Diets

As the growing population becomes wealthier, the consumption of animal protein increases. In general, the production of animal protein requires more land per calorie than production of plant-based protein.

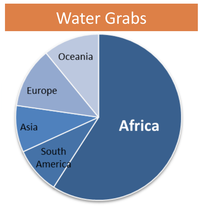
Increasing Demand for Biofuels

The increase in global demand for biofuels has led to large-scale conversion of land to production of biomass for biofuels. This demand is not expected to decrease anytime soon.

Land Grabs



Water Grabs



(Adapted from Rulli et al., 2013)

Discussion

Numerous factors are involved in determining whether or not a country is attractive to large-scale investment in land. Biophysical factors such as soil quality and annual rainfall, as well as factors that affect access to markets, such as proximity to transportation infrastructure, among a host of others, must be considered.

This project isolated one small subset of these factors, related to governance, in an attempt to assess whether or not there exists any noticeable relationship to a country's vulnerability to land grabs.

In reality, this relationship is extremely complex, and would require enormous amounts of data in order to show any meaningful, statistically significant correlations.

In addition, one cannot assume, *ex ante,* that all large-scale land acquisitions lead to negative outcomes. Like any other such situation, there are inevitable tradeoffs involved, resulting in both winners and losers. In addition, because of the highly unbalanced power dynamic between smallholder farmers and large investors, the potential for exploitation is often very high.

Indeed, a number of recent studies have concluded that countries must take political and legal steps toward securing land rights for smallholder farmers, particularly females, in order to protect their lives and livelihoods (Cotula et al., 2009; Rulli et al., 2013). As agricultural land becomes more valuable, and therefore more attractive to investors, the need to do so will become even more important.