S.S. W. ELSEVIER

Contents lists available at ScienceDirect

## **Economic Modelling**

journal homepage: www.elsevier.com/locate/ecmod



## Rural welfare implications of large-scale land acquisitions in Africa: A theoretical framework



Linda Kleemann <sup>1</sup>, Rainer Thiele \*

Kiel Institute for the World Economy, 24100 Kiel, Germany

#### ARTICLE INFO

Article history: Accepted 18 August 2015 Available online xxxx

Keywords: Large-scale land acquisitions Local populations Welfare effects Displacement Food prices

#### ABSTRACT

We study the local welfare effects of large-scale agricultural land acquisitions in Sub-Saharan Africa using a theoretical model that captures the major channels through which land deals might affect rural African populations. We distinguish two scenarios. In the first scenario, the investor plants capital-intensive staple food crops. Displaced farmers compete for a very limited number of jobs on the investment farm and spillovers to the remaining local farmers are rare. In the second scenario, where the investor plants cash crops, potential spillovers through contract farming are larger and production is more labor-intensive and hence provides better employment prospects.

© 2015 Elsevier B.V. All rights reserved.

#### 1. Introduction

The transfer of large areas of agricultural land in the developing world to international investors from Europe, the US, Asia and the Arab region has become one of the most hotly debated current development issues (Schoneveld, 2014). NGOs and parts of the media refer to these large-scale land acquisitions as "land grabs" or a "new global land rush" with a strongly negative connotation. In contrast, the governments of many of the target countries regard them as development opportunities. According to the Land Matrix database of large-scale agricultural land acquisitions, more than 30 million ha of land were acquired by foreign investors under long-term lease contracts between 2000 and 2012 (Land Matrix, 2013), with Africa being the most targeted region. Investors tend to compete for land with local farming communities rather than focusing on idle land (Anseeuw et al., 2012). This might entail substantial welfare implications for the affected rural populations. Whether the impacts are indeed as devastating as the notion of "land grabs" would suggest depends on a number of factors, including the size of compensation payments, productivity spillovers on local smallscale farmers, and employment opportunities for displaced farmers. Since many land investment projects have not yet reached the production stage, only little empirical evidence is available on the quantitative importance of these factors.

Based on the mostly anecdotal evidence that does exist, this paper analyzes possible scenarios for the local welfare effects of land acquisitions in Sub-Saharan Africa using a theoretical model that captures the major channels through which land deals might affect rural African populations. The main contribution of the paper is to provide a comprehensive and flexible framework on which decisions regarding the usefulness of new land investments under varying local conditions can be based. As soon as more and better data become available, empirical research can help determine the relative strength of the different transmission mechanisms identified in our theoretical model.

Our point of departure is an occupational choice model by Dessy et al. (2012), who assume that smallholders affected by large-scale land acquisitions can either stay in the farming community and share the remaining land or switch to wage employment on the investment farm, choosing the option that offers the higher pay-off. We follow Dessy et al. (2012) in distinguishing farming and wage employment as alternative occupations, but consider it more plausible to assume that displaced farmers are forced to seek wage employment on the investment farm even if they have to accept income losses. This is because new employment opportunities on investment farms are limited, generally low-paid and often seasonal. Another distinctive feature of our approach is that possible spillovers such as knowledge transfers from the investors to the smallholders who stay on their plots are explicitly taken into account. Finally, we consider two archetypical investment scenarios, one for staple food crops and one for cash crops. These scenarios can be expected to lead to different welfare implications, among others because of different labor intensities of production.

The remainder of the paper is organized as follows. In Section 2, we present selected stylized facts that provide a basis for modeling the

<sup>\*</sup> Corresponding author. Tel.: +49 431 8814 249/215.

E-mail addresses: linda.kleemann@ifw-kiel.de (L. Kleemann), rainer.thiele@ifw-kiel.de (R. Thiele).

<sup>&</sup>lt;sup>1</sup> Tel.: +49 431 8814 249/215.

**Table 1**Land Matrix projects with reported displacements.

Displaced people	Number of projects	
Up to 999	15	
1000-2499	5	
2500-4999	4	
5000-10,000	6	
More than 10,000	10	

Source: Anseeuw et al. (2012).

welfare effects of land investments. The model's setup is introduced in Section 3, while Section 4 uses the model to investigate how large-scale land acquisitions might affect the welfare of the local farming population. Section 5 discusses several of the assumptions underlying the modeling framework. Section 6 concludes.

#### 2. Stylized facts

The welfare implications of large-scale land acquisitions for the local population crucially depend on the conditions under which the land transaction itself is conducted. Case study evidence suggests that the land governance systems of Sub-Saharan African countries, comprising a multitude of sometimes contradictory laws derived from colonial and customary systems, tend to privilege powerful actors such as the investor, the host government and local chiefs while giving little or no voice to local land users (e.g. Nolte, 2014; Nolte and Väth, 2013). The land deals are typically negotiated by the government or local community leaders on behalf of the affected population, which may give rise to rent-seeking coalitions between investors and domestic negotiators, possibly leading to displacement of farmers without compensation.

Not surprisingly given the sensitivity of the issue, evidence on displacements is scarce. The Land Matrix includes only 40 cases (out of 1217 reported land deals, of which 625 come from reliable data sources) where information on displacement is available. In all other cases displacements may or may not have occurred, rendering it impossible to assess their frequency. The fact that investors often compete with local farmers for the same areas of land (Anseeuw et al., 2012) suggests, however, that displacements are fairly widespread. 25 of the 40 known cases are reported to have led to the displacement of at least 1000 people, and ten of these to the displacement of more than 10,000 people (Table 1). These numbers point to a sizeable dimension of the problem, even though it is hard to gauge how representative the small sample of 40 cases is. From our own literature research of almost 300 case studies from Sub-Saharan Africa, we find that 46 explicitly report displacements with the associated investments covering various food and fuel crops (see Table 2); many more are imprecise about them.<sup>2</sup>

Displaced farmers in Sub-Saharan Africa are unlikely to be adequately compensated for the loss of their land. Schoneveld et al. (2011), for example, show for the case of biofuel feedstock plantations in Ghana that compensation amounted to only 12.6% of lost land. Insufficient compensation payments are also mentioned in many of the cases covered in our own literature research. This is partly because lease fees or other payments that governments obtain from the investors are typically very low. For the 53 cases in the Land Matrix with details on compensation schemes, average annual payments amount to US\$ 12 per hectare as compared to much more than US\$ 100 in the US or the EU (Anseeuw et al., 2012: 42). Even if consulted, the affected smallholders usually lack information and negotiating power. Arezki et al. (2011) provide evidence that investors are disproportionately engaged in Sub-Saharan African countries where land governance systems are deficient, land rights of local populations are only weakly protected and smallholders are hence in an inferior bargaining position. In addition, proceeds may be diverted by the government or the local authorities when they

**Table 2**Reported displacements in Sub-Saharan Africa.

Destination country	Country of origin	Land size (ha)	Crop
Zambia		155,000	Various crops
Mali	Libya	100,000	Rice
Mozambique	UK	30,000	Sugarcane
Tanzania	UK	8211	Jatropha
Zimbabwe	South Africa/Zimbabwe		Sugarcane/livestock
Zimbabwe	South Africa/Zimbabwe	376,995	Sugarcane/livestock
Rwanda	UK/USA	10,000	Jatropha
Mozambique	UK	30,000	Sugarcane
Zambia		3003	Jatropha
Sierra Leone	Switzerland	40,000	Sugarcane
Ghana	Norway	10,600	Jatropha/maize
Liberia		14,999	Rice
Congo		10,000	Maize
Kenya	Kenya		
Sierra Leone	Switzerland	40,000	Sugarcane
Kenya/Tanzania	Kenya/Tanzania		
Zimbabwe	South Africa		Sugarcane
Mali	Libya	100,000	Rice
Zambia	UK/South Africa	31,700	Sugarcane
Uganda	Germany		
Tanzania	UAE		
Mozambique		26,000	Forestry
Uganda	Uganda	1000	
Ethiopia	Israel	140,000	Castor beans
Ethiopia	Israel	140,000	Castor beans
Sierra Leone	Switzerland	40,000	Sugarcane
Kenya	UK	28,911	Crambe, castor, sunflower, oil proc.
Kenya	Kenya	20,000	Sugarcane, agrofuels
Zambia		200	Jatropha
Tanzania	Sweden	22,000	Sugarcane, ethanol
Kenya	USA	17,500	Rice
Kenya	USA	17,500	Rice
Uganda	Germany		Coffee
Kenya	Italy	50,000	Jatropha
Tanzania	Sweden	400,000	Sugarcane
Zimbabwe	South Africa	40,000	Sugarcane
Ghana	USA/Ghana	3250	Rice
Ghana		14,000	Jatropha
Tanzania		14,704	Forestry
Mozambique		30,000	Sugarcane
Kenya		6900	Rice
Ghana	Belgium	14,153	Palm oil
Tanzania	UK	8211	Jatropha
Tanzania	UK	5818	
Tanzania		28,132	Teak
Tanzania	Netherlands/Tanzania	10,000	Jatropha
Tanzania	Norway	100,000	Forestry

Source: Authors' literature review.

receive the compensation on behalf of the affected communities. This happens for instance when the local chiefs or the local government play a powerful unmonitored role in the negotiations, which gives them the opportunity to gain personal advantages (Brown, 2005: 98–100). Even if they reach the displaced farmers, compensation payments are often insecure and meant to compensate only for belongings on the farm and not for the land itself (e.g. Deng et al., 2010: 27). In our basic model specification below we therefore neglect compensation payments, which is consistent with two alternative scenarios: (i) there are no compensation payments to displaced farmers, but also no immediate losses to farmers except land and there is no transition period; (ii) the compensation payments only account for losses of personal belongings and for a possible transition period in which displaced farmers do not yet earn wage income. In this case, they can be neglected in our model, which neither takes into account personal belongings except land nor the transition period.

How the displaced farmers' welfare is affected depends not only on compensation but also on whether they can find new jobs and how well these are paid. Labor requirements on investment farms vary depending on the crop. Case studies of selected land acquisitions show

 $<sup>^{2}\,</sup>$  A complete table including all cases studies covered in the literature research is available from the authors upon request.

### Download English Version:

# https://daneshyari.com/en/article/5053722

Download Persian Version:

https://daneshyari.com/article/5053722

<u>Daneshyari.com</u>