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The impacts of private sector investments in the African food and agricultural sector on the local population – a review of empirical literature

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Our study presents a review of empirical literature on the impacts of private sector investments in the food and agricultural sector on the local population in Africa. Processes of liberalization and globalization have led to profound market transformations, including growing export orientation, the consolidation of processing and retailing along with related organizational and institutional changes. These changes were accompanied by a rising importance of domestic and foreign private sector investments into the African food and agricultural sector. Against this background, our study aims at illustrating what is really known about these impacts. Based on a conceptual framework covering the potential impacts of private sector investments in the agriculture and food sector, we review studies with primary data collected since 200 that we found using different search engines and the snowball method. Much of the empirical literature focuses on the production level (in particular contract farming), whereas other parts of the value chain are found to be neglected research areas. At the production level, the findings of our review show that benefits mainly arise via labor and product market channels. Positive impacts on the incomes of contract farmers, outgrowers and employees are found. Access to contracts is often biased to better-off households. However, there are also benefits for very poor people, especially via labor market channels. The study identifies several research gaps. For instance, little is known about the impacts of private sector investments on public goods and resources such as infrastructure, land, water and ecological impacts. Further research on institutional arrangements is required to be able to relate observed impacts to the institutional setting of the investment projects.

Introduction

The agriculture and food sector in Sub-Saharan Africa is undergoing a profound transformation. One major feature of this transformation is the rapidly growing importance of the private sector in agricultural production, processing and retail which is reflected in different institutional and organizational changes. Especially since the mid-1980s, processes of liberalization and globalization have shaped the industry. Thanks to trade liberalization and improvements in logistics, food trade has doubled since then and spurred massive investments by the private sector in food production, processing and retail, by both, foreign and domestic investors. At the same time, the thinking about the engagement of private companies and their role in addressing societal problems has profoundly changed. For the longest time, the private sector was mainly seen as destructive, causing severe environmental damages and exploiting poor people. Companies' contribution to poverty reduction and development was at best an add-on to existing business

activities in the form of corporate social responsibility activities. This picture has slowly changed towards a more balanced view of the private sector which is increasingly recognizing that social value creation and profit maximization can go hand-in-hand (Baumüller, Husmann, and von Braun 2013). Against this background, we review the empirical literature on private sector investments in the agriculture and food sector in Sub-Sahara Africa and their impacts on different groups of the local population to see how much scientific evidence exists on such impacts and which insights can be gained.

Material and Methods

We exclusively review studies on Sub-Sahara Africa using primary data collected since 2000 and focus on impacts of private-sector investments in the food and agricultural sector on the local population. In addition to empirical studies published in refereed journals, we also include grey literature provided that the publications contain information about the data and methods used. The subsectors of interest include horticulture, grains, palm oil and tropical beverages (tee, coffee, cocoa). Overall, 18 studies were identified and reviewed concerning their scope (using the conceptual framework presented below as a guideline), the data and methods used, the findings, the countries and sectors investigated, the origin of the investor and the size of the investment.

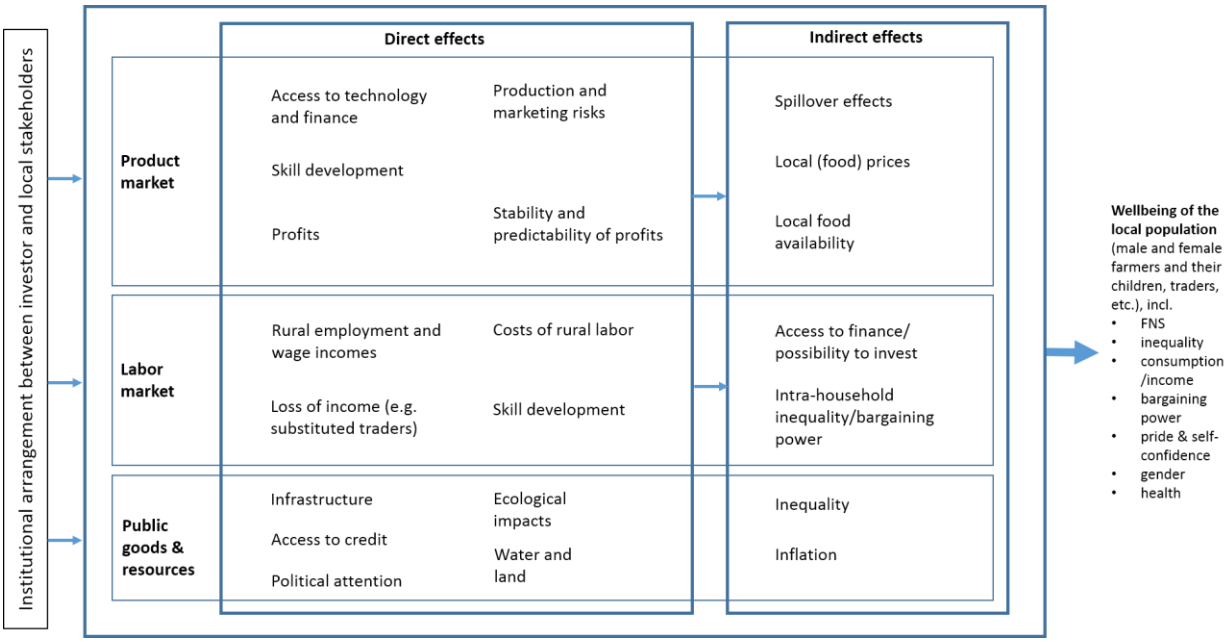

Figure 1: Conceptual framework for the analysis of impacts of private investments on the local population

Results and Discussion

The analysis of the identified studies presented in this chapter is following the conceptual framework above (see Figure 1).

Institutional arrangements between governments and investors have hardly been analysed in the reviewed literature. Only one study of an oil palm project in Uganda has assessed the provisions for the investors (Benin and Walusimbi 2004). Another rather general finding from the comparison of twelve case studies of agricultural export producers in Africa is that competition among processors is generally beneficial for farmers as competition among buyers enables the farmers to fetch a higher farm-gate price and therefore ensures them a higher level of income (Depetris Chauvin and Porto 2010). Institutional arrangements, e.g. in the form of the contracts between investors and contract farmers or employees are hardly described in the publications we review.

With regard to income, most of the reviewed studies find positive effects on product and/or total household income of producers participating in an investment project as a contract farmer. Results of a study using data from smallholder avocado farmers in Kenya, for instance, indicate that contract farming can have a positive and significant effect on smallholder avocado income but that contract farming does not have any significant effect on the total household income (Mwambi et al. 2013). Bellemare (2012) analyzes a range of contract farming schemes in Madagascar in which farmers cultivate different crops and finds a slight increase of incomes. Elepu und Nalukenge (2009) compare income effects of different crops and find that average gross profits are higher for contracted farmers in the case of sunflower and sorghum. In contrast, non-contracted farmers make higher profits when selling rice than contracted farmers. Similarly, Maertens, Minten, und Swinnen (2012) find that export-orientated contract farming in Madagascar leads to higher and more stable incomes for farmers and thereby improve the households' food security. Positive effects of contract farming are also found by a study on bean export supply chains in Senegal, vegetable commercialization in Kenya, and organic coffee production in Uganda (Maertens, Minten, and Swinnen 2012; Wambui Muriithi 2014; Bolwig, Gibbon, and Jones 2009).

Some studies indicate that investment projects enable farmers to access improved technologies, which is expected to increase their productivity and thus lead to higher profits and improved welfare (Elepu and Nalukenge 2009; Abdul-Razak, Donkor, and Yeboah 2015). van Wijk and Kwakkenbos (2012) find that companies are found to encourage farmers to buy fresh seeds for every crop cycle. However, the study does not provide any information about difficulties in accessing such inputs or whether they are made accessible by the company. Several other studies mention that investors provide inputs on a loan basis but do not elaborate on this aspect (Väth and Kirk 2011; Mwambi et al. 2013; Minten, Randrianarison, and Swinnen 2009; Freguin-Gresh, D'Haese, and Anseeuw 2012; Elepu and Nalukenge 2009; Maertens, Minten, and Swinnen 2012)

One important factor for farmers' wellbeing can be the reliability of output markets and the distribution of risks involved in agricultural production, including risk sharing mechanisms between producers and buyers. Yet, very few studies analyze or at least mention this aspect. Little is also known about skill development. Extension services provided by investors, for instance, can be an important benefit for farmers that might also lead to considerable spillover effects.

Not only the prices as such, also the reliability and predictability of prices for agricultural produce are a major issue for many smallholder farmers. Evidence suggests that prices offered by investors engaging smallholder farmers in contract farming schemes are generally above local market prices and are therefore more profitable for the contracted farmers (Minten, Randrianarison, and Swinnen 2009; Getaneh and Bekabil 2008; van Wijk and Kwakkenbos 2012). Companies often offer higher prices to avoid side-selling (Maertens, Minten, and Swinnen 2012; Mwambi et al. 2013; Bolwig, Gibbon, and Jones 2009).

Some studies indicate that organic certification that is part of certain investment projects can be responsible for higher output prices as it offers premium prices for sellers compared to conventional products. Higher and more stable market prices are found to offset the risks of value-adding processing that is required in the scheme, which is costly in terms of time, labour and equipment (Bolwig, Gibbon, and Jones 2009).

Especially the development of production and management skills that farmers may obtain when participating in investment projects can have considerable spillover effects on the production of other crops. The existence of spillover effects is hardly analyzed in the literature reviewed but in

the few papers that do so, positive effects are found (Jones and Gibbon 2011; Maertens, Minten, and Swinnen 2012; Mwambi et al. 2013).

Generally, evidence shows that the labour market plays a significant role especially for very poor rural households with relatively few assets. Several studies show that especially the very poor and women benefit from new employment opportunities created by investments in the agriculture and food sector (see e.g. Getahun 2016; Maertens and Swinnen 2006; English, Jaffee, and Okello 2004; Maertens, Minten, and Swinnen 2012). Wage employment opportunities created by agricultural investment projects also have important gender implications in many cases as a major share of employees is female and off-farm employment opportunities are generally limited for women in rural areas (see e.g. Maertens, Minten, and Swinnen 2012). Getahun (2016) finds that the net income effect of employment in the flower farm sector in Ethiopia is large and positive. The feminization of the rural labour market reportedly leads to a reduction of direct and indirect gender discrimination and to female empowerment in their households (Maertens, Minten, and Swinnen 2012; Getahun 2016).

The creation of public goods (and also 'public bads') can be an important result of investment projects. Unfortunately, very few studies address such issues. Evidence on the creation of public goods is therefore very scarce. A study on a mango outgrower scheme in Ghana reveals that contracted farmers felt improvements of educational facilities and improved access to farm tools and to sanitary and health facilities (Abdul-Razak, Donkor, and Yeboah 2015). Increased investments can also attract political attention to areas or sectors that have been neglected so far. The only study reporting on this phenomenon is an analysis of the BIDCO Oil Refineries Limited oil palm investment in Uganda that finds increased political attention for the area where the oil palm plantation was set up as the only positive aspect of the project (Benin and Walusimbi 2004; Becker and Happ 2013). With regard to ecological impacts, the analyzed studies generally reveal negative impacts, such as signs of soil exhaustion, higher probability of pests and diseases for farmers using high-yielding varieties, and water, air and soil pollution (Elepu and Nalukenge 2009; Getahun 2016). However, the adoption of organic farming methods introduced by an investor in Northern Ghana led to positive changes (Abdul-Razak, Donkor, and Yeboah 2015). Some study results suggest that participation in outgrower schemes lead to positive effects on social capital and community welfare. Evidence shows that participation can lead to more cooperation among farmers, the building of networks, interconnectivity, friendship, trust, exchange, and gender equality (Abdul-Razak, Donkor, and Yeboah 2015; Getahun 2016).

Reviewing the empirical studies against the background of the presented conceptual framework reveals several research gaps. A general observation is that most publications lack an overarching conceptual framework and focus on only very few of the potential channels through which investments can impact the local population without putting the aspects they analyze into a certain context.

The great majority of studies focus exclusively on the impacts of investment projects on the incomes or consumption of smallholder farmers or employees. Very few studies look at other aspects of wellbeing and channels that affect the wellbeing of the local population. Especially the public goods created or destroyed by investment projects and the impact on the whole community (in contrast to the direct beneficiaries) are hardly ever mentioned. Moreover, no single study thoroughly analyzes the changes in the costs of rural labour induced by large-scale farming projects or other new job opportunities, water issues or impacts on local food prices. Hardly any study analyzing the impact of investment projects on famers or employees describes the institutional arrangements between investors and the concerned local population in detail although these arrangements are central to the outcomes. Also the question whether contract

farming benefits the better-off farmers is sometimes answered positively, sometimes negatively, without referring to the specifics of the contracts that would cause such a bias. Some studies name the investor but only very few studies mention the size of the investment project. This makes it difficult to see whether there are differences in the institutional arrangements and impacts on the local population between domestic and foreign investors and whether impacts are somehow correlated with the size of an investment. Moreover, all reviewed studies focus on either smallholder farmers or employees. We did not find a single paper investigating the impact on local traders or other groups involved in the agricultural value chain. Furthermore, no study addresses the issues of seasonality of employment and/or working conditions. Finally, hardly anything is known about the creation (or destruction) of public goods in investment projects that can have implications for the wider community. Ecological impacts or the construction of infrastructure are mentioned in only very few papers and even there, they are not thoroughly analyzed.

Conclusions and Outlook

The literature review presented finds that investments in the African food and agricultural sector have mainly positive impacts on the incomes of the people directly involved in the projects. Such benefits are found to come via labour and product market channels. Less is known about the impacts on other actors involved in the agricultural value chain and on the long-term effects of such investments. Furthermore, hardly anything is known about many aspects, especially regarding public goods and institutional arrangements.

Much more research is required that links the institutional arrangements between governments and investors as well as investors and the local population to the impacts and considers the various channels that can impact the wellbeing of different parts of the local population. Without more research on these aspects, it is difficult to assess the real impacts of private sector investment projects and to provide advice to policy makers and investors on how to design investments such that both, investors and different subgroups of the local population benefit as much as possible.

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