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## Detrimental Land Grabbing or Growth Poles?

Determinants and Potential Development Effects of Foreign Direct Land Investments

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**Large-scale Land Acquisition has become a source of concern in the last few years. The article argues that they will also remain an important issue for food security in the future since there are several forces driving up the interests for these kinds of investments. The stakes for poor countries are high: many advantages such as access to specific markets, technology, management, capital, and finance which can create a considerable number of jobs and a push for local development are opposed by important threats for local populations but also for the environment. Early assessments point to predominantly critical situations. Given these trends, Large-scale Land Acquisition should not be left to market forces alone. National governments, regional bodies, and the international community have a responsibility to protect the interests of the poor and shape large-scale land acquisitions in a development-friendly way.**

### 1 Relevance, Location, and Shape of Foreign Land Acquisitions

Large-scale Land Acquisition (LSLA), i.e., land acquisition or long term lease of, say, more than 100 up to several million ha – or “land grabbing” for those who pronounce the negative aspect of these investments – have become a source of concern and international discussion in the last few years. Some observers, including the head of the Food and Agriculture Organisation (FAO), talk of “neo-colonialism” (Borger 2008; Robertson, Pinstup-Anderson 2010). This, however, only touches the foreign investors (mainly from China, states of the Middle East and North Africa, Russia, the UK, and the US), while in reality most of the land acquisitions are carried out by national investors even in countries where one would not expect much local capital, and thus remain below the radar screen of international attention. For in-

stance, out of six low-income countries with more detailed information on LSLA (for problems of data see footnote 2), only Liberia had a dominant share of foreign investors, while in Ethiopia and Mozambique they were about 50 % and in Cambodia, Sudan, and Nigeria only 3–30 % (Deininger, Byerlee 2011, p. xiv). Also detailed work from West Africa supports the finding that national investors are dominating LSLA (Hilhorst et al. 2011). This article does not make an explicit distinction between foreign and national LSLA except for instances where this is deemed necessary (foreign relations, trade). It is very possible that both are stronger interlinked than is visible, if national investors act as straw men, particularly if laws restrict the purchase of land by foreigners, or if they speculate on selling the land later.

After many years in which agriculture was mainly seen as a sector with falling prices, several factors contributed to the current return of interest in agriculture in general and LSLA in particular. It is important to understand the motivations for LSLA and put them in the wider context of the rekindling of interest in agriculture (or even wider, the biomass sector) in order to understand the opportunities, threats, and regulatory options of this phenomenon.

1. The boom of mainly government-induced biofuel policies in several countries, in particular in the EU, the US and Brazil, created a first push for LSLA. Since the early 2000s, biofuels were seriously promoted for substituting fossil fuels and thereby reducing green house gas emissions. Blending mandates, flex-fuel cars, improved technologies, and guaranteed markets created substantial demand for biofuels, particularly since 2005 (GBEP 2008; IEA 2010). Several developing countries such as Thailand, South Africa, Mexico, and India followed the richer countries in implementing biofuel policies (ibid). Though these policies were mostly “co-aiming” at supporting local producers and were therefore often coupled with protectionist measures, some investors saw the chance in certain countries to produce for export and started LSLA, often in Least Developed Countries (Mitchell 2011).
2. Rising world food market prices since about 2005<sup>1</sup>, culminating in the food price crises of

2007/2008 and 2010/2011, gave a substantial push to the LSLA for several reasons. While until about 2007 the positive price trend was only seen as temporary (OECD, FAO 2006), it is nowadays widely expected that prices will rise substantially at least in the medium future (OECD, FAO 2011). This acknowledges that food and biomass demand, driven by increasing population and incomes, changing food habits and locally shrinking land availability, will outpace productivity increases and cultivation of existing land reserves. Most obviously, higher agricultural prices increase returns on investment in land acquisition and food production. In addition, many importing countries fear that availability of food on world markets could become a problem, propelled by experiences during the food price crises when major exporters closed down or hindered exports. Investors from these countries, either national organisations such as wealth funds, and – more importantly – private investors, are amongst the most active in LSLA (Cotula et al. 2009; Deininger, Byerlee 2011).

3. Already before the financial and economic crisis of 2008/2009, and ever since, financial markets have become more volatile and risky, leading investors to seek for alternative investments, possibly long-term, stable, and countercyclical. Agriculture and land seem to offer such investment opportunities under the described forecasts.
4. With rising oil price, biomass increasingly becomes an interesting feedstock for the petrochemical industry. Technological progress in biotechnology will allow improvements in production, processing, design, and cascading use of bio-based materials. Investors interested in LSLA may also speculate on this emerging trend.
5. The sale of certificates for reducing emissions from deforestation and forest degradation by planting and protecting forest also started to attract investors and was labelled as potentially “the biggest land grab of all time” (Mukerjee 2009; compare Deininger, Byerlee 2011).
6. Speculation, given the grounded expectation of rising value of land in the future due to the above mentioned trends, is certainly also a strong driver for LSLA.

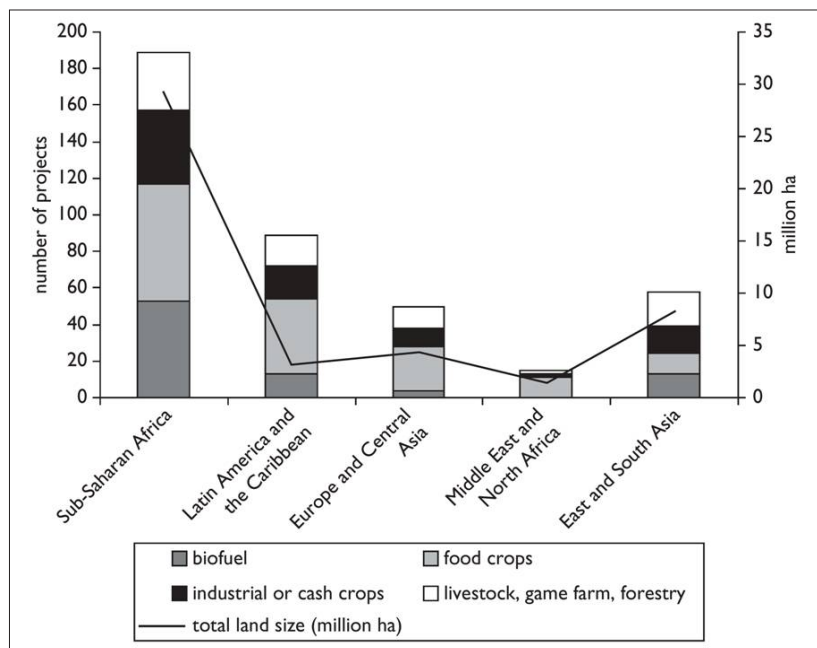
Thus, LSLA is only one part of an increasing engagement in the entire biomass sector which is expected to boom. This expectation is shared by researchers of different professions, governments, investors, and analysts. However, while large-scale investments in backward and forward segments of agricultural supply chains are well known for providing economies of scale in market access and cost advantages, agricultural production at a large scale is not straightforward the best way to invest: economies of scale and better management compete with transaction and supervision costs and higher flexibility of smaller, typically family farms (Berry, Cline 1979). Thus, historically LSLA was confined to areas where, by nature or by force, large tracts of land were free or with low cost to obtain, and where low labour needs (e.g. extensive livestock), very cheap labour (e.g. slaves or forced labour, isolated areas) or decisive progresses in mechanisation (e.g. grains and oilseeds) were favouring large-scale agriculture (Binswanger et al. 1995).

Apart from the mentioned new economic incentives for LSLA for specific outputs, some

other factors contribute to their growing attractiveness. New technologies reduce some of the traditional disadvantages of large production units. Higher standards and documentation requirements promote vertical integration and growing concentration of agricultural supply chains (Stephenson 1997), making the integration of production into larger units more attractive vis-à-vis a cumbersome, unreliable, and risky organisation of procurement from smallholders. Finally neglect of smallholders and their organisations as well as of support systems for agriculture in the last decades have also contributed to lowering their performance to organise the products that are in demand (Robertson, Pinstrup-Anderson 2010; FAO 2009a; FAO 2009b).

Of all LSLA between 2001 and 2011, which are estimated to be around 80 million hectares, up to 60 % are to be found in Sub-Saharan Africa (SSA) (The International Land Coalition 2011, cited in The Economist 2011). Other sources report a slightly less, but still dominant concentration in SSA (see Figure 1).<sup>2</sup> This is somewhat higher than the overall estimation of the share of SSA

**Figure 1: Frequency distribution of projects and total land area by destination region and commodity group**



Source: Fischer, Shah 2010, cited in Deininger, Byerlee 2011, p. 52

in potentially available land for agriculture (45 % of 446 million ha, Fisher and Shah 2010 cited in Deininger, Byerlee 2011, p. 34).<sup>3</sup> The countries that attract most investors are Sudan, Ethiopia, Nigeria, Ghana, and Mozambique, but also a wide range of other countries are concerned. In a formal analysis of factors affecting the probability that a country is targeted by foreign LSLA, Deininger, Byerlee (2011) found that the most significant variable was rural land rights recognition, which was negatively correlated to investment announcements and implementation, while the investment protection rank was less or not significant. This is particularly worrisome since it makes it more likely that the rural population with its various existing rights may be negatively affected by these investments (see next chapter).

## 2 Opportunities and Threats of LSLA for Rural Development

While the previous section asked what motivates investors to invest in LSLA, this section reviews the consequences for the receiving countries and particularly for the affected rural areas. It starts with the opportunities, reminding that investors usually do not act against the will of the host country, but by – often outspoken – invitation. Many countries have tried for decades, and are still trying, to attract foreign investors into rural regions, and offer special incentives such as preferential tax, import and export and financial transfer regimes for reasons listed below (Cotula et al. 2009; Deininger, Byerlee 2011).

Of course, not all opportunities are equally important for all actors, and often it is only a fraction of the stakeholders – typically national and/or local elites and some government agencies – which really interact with investors. One of the most intriguing observations on the new wave of LSLA is the fact that hardly any details of contracts are publicly known, and in known contracts promised effects, rights, and obligations are only vaguely spelled out (Cotula 2010). Older LSLA, though created in very different contexts, that have survived the stormy economic and political times which prevailed in many of the concerned countries, often exhibit at least some of the mentioned positive effects (but of course also the problems).<sup>4</sup>

- *Access to and favourable conditions for capital/credit.* Capital and credit are notoriously lacking in rural areas of developing countries but are necessary in many forms in agricultural production, from seasonal to long-term. FAO (2009b) has estimated the requirements in annual agricultural investment at 89–209 billion US\$. Agricultural credit in particular is difficult to organise in comparison to other sectors, due to high production and market risks and long periods to recover the capital. Large investors have access to national and international capital markets. Particularly international capital markets have the appropriate long-term loans that are necessary to establish agricultural production capacities. In investments involving contract farming, many investors channel part of this capital to small and medium farmers in return for a right on the produce. These contract schemes are eased if the investor has a local monopsony or offers higher prices because of better marketing options (Eaton, Shepherd 2001; Brüntrup, Peltzer 2007).
- *Access to markets.* As explained above from the point of view of the investors, some markets tend to be better adapted to larger and integrated value chains. These include products which are easily degradable and where logistics must be very tight to reduce losses and keep quality (e.g. sugarcane, flowers, fruits, and vegetables). These logistics are typically rare in poor countries, and without a large integrated investor such markets are lost for smallholders in the worldwide competition for production sites. Most public and private standards require additional, often fixed costs which stress smallholders' notoriously scarce resources and increase unit costs in small-scale more than in large-scale production. Also products for niche markets which are difficult to organise on an anonymous market do not favour smallholders. Even in industrialised countries market access is an important argument for vertical integration (Eaton, Shepherd 2001), though in these countries integration typically stops at long-term contract farming. In poor countries, however, complete vertical integration including production is favoured by the perception (and often experience) that smallholders are



unable or unreliable to stick to contracts and to produce the right quantities at the right time. Thus, these sub-sectors tend to be feasible in poor countries mainly under large-scale production, and thus draw in LSLA.

- *Investments in local infrastructure:* Generally, poor countries possess less infrastructure important for agricultural production such as dams and irrigation canals, roads, cooling chains, electricity, and port facilities, while in richer countries these facilities are taken for granted and are provided by the public (FAO 2009b). Particularly for linking remote areas to markets, such investments are necessary to boost agriculture but difficult to finance and maintain by governments of poor countries and impossible to finance by smallholders. Large-scale agricultural investors often can and must build (part of) such infrastructure, up to entire port terminals. Some of the investments are public or club goods, providing additional advantages for an entire area or for a group of actors outside the investment, for instance contract farmers.
- *Access to and development of knowledge, technologies, and management:* In contrast to perception, agriculture – both traditional and modern – is intensive in knowledge, technologies, and management. While in advanced countries agricultural technology such as improved varieties, adapted machinery or inputs is readily available on the market, this is often not the case in poor countries. Large investors are able to access international standard technologies and adapt them to their own needs, even develop their own technologies at least to a certain degree. Particularly international investors are able to transfer knowledge from one country to another.
- *Better soil fertility management:* Although there are important environmental concerns about large-scale agriculture (see below), one positive aspect is that they are able to provide crops and soils with sufficient plant nutrients, particularly phosphorus and potassium which are often scarce in many tropical soils and difficult to reconstitute fully by organic means only.
- *Formal, often relatively well-paid and secured jobs:* Large-scale agriculture can pay higher

and more secure salaries than the informal sector in rural areas. These salaries may, however, not be competitive with an entire farm income (an argument found e.g. in Deiniger, Byerlee 2011) which is subject to strong variations and usually the result of an entire farm household, not an individual person. In many cases, farm households do (no longer) rely on farm income alone (Ellis 2000). Thus formal jobs are highly appreciated in the rural areas. Therefore jobs are often the single most important reason for (development-oriented) elites to support LSLA. The number of jobs created depends very much on the crop and the technology chosen: Deiniger, Byerlee (2011) indicate numbers from 10 jobs per 1000 ha (grains) to 700 (sugarcane-ethanol with manual harvest).

- *Indirect effects on rural and national economy:* Indirect effects of LSLA are difficult to capture, they occur in the medium to long run due to structural changes in the (rural) economy. Positive effects must be expected to derive from increased spending capacities of workers for local goods and services and local supply response as well as strong backward and forward linkages in up- and downstream or support sectors during operation (transport, security, processing for local/regional markets, etc.). According to research on agricultural growth linkages, in poorer countries demand linkages will prevail, in more advanced countries back- and forward linkages (Bresciani, Valdés 2007). Often, rural hubs are emerging in the vicinity of large estates, especially if they are employment-intensive, which satisfy further needs of the rural population.
- *Taxes and levies:* Though investors are exempted from taxes and levies for a certain period in many countries if they invest in rural areas, they are finally expected to contribute to national and/or local government revenues. In the initial phases of investments this may not be visible, but for instance in Malawi the long established monopolist sugar company is one of the major tax payers in the country (GOM 2006). Whether local communities benefit from LSLA depends on the fiscal setting – many communities do not have the right to charge local taxes. However, without such

increased incomes, local communities may be financially squeezed because often LSLA means population influx and higher financial needs in the medium to long term for social infrastructure and services, while returns from central to local government may not honour these higher needs. In these cases in particular, voluntary contributions from the investors (see next point) are extremely important.

- *Corporate Social Responsibility (CSR) projects*: CSR activities such as public infrastructure (schools, wells, clinics, feeder roads) are part of many LSLA deals. They can be directed to own employees or to the wider communities. In the latter case, they can create substantial benefits also to those people who do not directly benefit from labour contracts or products and create a positive political backing in the region.
- *Agricultural production for internal markets*: Although foreign investors usually envisage external markets, in many deals it is known that provisions are made to supply national markets, too. Often governments urge to consider national food security issues, in particular for times of scarcity (Cotula 2010). Potentially, large producers could easily satisfy the usually relatively small formal markets, particularly if they substitute imports which – due to tariffs and transaction costs – have higher import parity prices. Although many poor countries have become net food importers, these arrangements must be carefully balanced in order to not push smallholders out of national markets to which they have better access than to international markets.
- *Exports and balance of payments*: Many poor, agriculture-based countries rely on agriculture for export earnings to import the many goods and services which are not produced in these small economies. Large investors, for reasons discussed above (standards, finance, volume, integration), are better positioned to access markets abroad, and to serve this necessity. In contrast to investments in other sectors where imports can bear a substantial share of value addition, agriculture creates by nature a relatively large local value addition.

These potential opportunities are confronted with substantial risks of LSLA. Some of them have

already been introduced or are simply the inversion of the opportunities, but some are genuine:

- *Base of existence of smallholder and rural livelihoods*: The loss of land touches the very core of the existence of rural livelihoods in poor countries. Though it has been argued that many do not live on agriculture alone and are bound to leave the agricultural sector in the long-term, in the short- to medium-term most need or would strongly prefer to own land for subsistence and also market agriculture in order to attenuate risks from other incomes, including from salaries on large farms. The right to food in rural areas often still translates into having access to productive resources for agriculture.<sup>5</sup> For many other households not directly losing land, grazing or gathering rights as well as access to water may be at stake.
- *Local food markets*: With the diversion of large tracks of land to crops for export production (which many LSLAs aim at), the production for local food markets may suffer. Particularly in time of scarcity on national food markets, the export of food is morally unacceptable and politically suicidal.
- *Cultural and religious values*: Land in many traditional societies has an important non-economic value, particularly special sites such as graveyards, ceremonial forests, or landscapes (Chiesura, de Groot 2003).
- *Unequal power and knowledge of negotiation partners*: Farmers, rural inhabitants, traditional authorities, local communities, and even national governments are badly prepared for negotiations with large-scale investors. These lands were never before or at least for decades not in high demand, which is one of the major reasons why in many areas there are no formalised land rights. Not only are local actors not able to assess the true value of the land, they also lack formal negotiation skills, procedures, and knowledge how to get a fair deal. Of course, this can also lead to exaggerated expectations, but the very low prices reported for land sales and leases for very long periods insinuate that they lack awareness.
- *Underrepresented groups*: Particularly vulnerable to be overlooked in land deals are users of natural resources attached to land such as

women, livestock herders, or ethnic minorities (Rossi, Lambrou 2008; Cotula et al. 2009; Behrman et al. 2011). They are often discriminated by traditional land regimes as well as modern land rights and registration processes.

- *Lack of formal land rights, overlapping (land) property regimes:* In many developing countries, particularly in Sub-Saharan Africa, several types of formal and informal land rights coexist, with the latter neither officially recognised nor registered. Often national governments formally own all land which is not explicitly under formal private property. This claim may coincide with delegated ownership and decision rights to local governments or traditional bodies. In addition, traditional leaders and communities have their own traditions; sometimes several ethnic groups may have differing, even conflicting regimes when a region has been settled by various groups. Finally, religious rules may influence ownership, particularly with respect to inheritance of land and attached rights.
- *Interference of governments and elites:* If LSLA takes place in countries with low standards of respect to existing (often informal) land rights or in remote areas of countries with higher standards, corruption, neo-patrimonialistic attitudes, and politics can grossly affect land deals, often to the detriment of poorer and underrepresented parts of the population. In fact, elites are often actors in LSLA, as brokers or investors themselves. The news and case study reports are full of deals where elites – often violently – let clear land of their inhabitants for investors who may or may not be aware of this.<sup>6</sup>
- *Proper compensation:* Acknowledgement of land and user rights and their compensation in open negotiations is usually mentioned as an important condition for fair LSLA deals (FAO et al. 2010). However, this may not be enough if compensations do not create alternative, robust livelihoods. For instance, jobs and payments may not be stable enough to assure survival under adverse conditions, i.e. if the employer, if a business sector, or if food markets fail. These collapses are quite likely in poor countries. In absence of social safety nets, in many cases only a compensation which includes a

minimum of land will provide enough security needed for assuring survival in times of crises.

- *Environmental degradation:* The environment is threatened by LSLA in several ways. Excessive and unprofessional use of fertilisers and pesticides can pollute water bodies and deteriorate natural habitats. Clearing of large tracts of land and intensive tillage reduces natural biodiversity and opens up land to erosion. Investors have more radical means to clear the landscape than smallholders. In addition, the cultivation of one or a few crops on large tracks reduces agro-biodiversity and increase pest infestation, requiring higher pesticide use.
- *Structural dependency:* A serious economic threat of LSLA is the fact that entire regions can become dependent on one or a few investors and, according to their investment decisions, on one or a few products. This is particularly striking in case of bankruptcy which can leave degraded and destroyed ecological, economic, and/or social environments.
- *Lack of spillovers:* The absence of the above-mentioned technological and economic spillovers and social investments might leave the wider communities around LSLA without real development and the large estates as enclaves.
- *Local conflicts:* Due to the important issues at stake described in the last paragraphs, local conflicts can easily break out around LSLA. In some cases and large projects, even national instability can result.<sup>7</sup>

Whether opportunities or threats prevail in any given case of LSLA and for the phenomenon as a whole depends on many factors. In fact, most present assessments of LSLAs are negative.<sup>8</sup> The seriousness of the threats entails that LSLAs have the duty to inform about and prove their positive effects and assure against failures. This task cannot be left to investors alone. Governments have a duty to support and protect the weaker and more vulnerable partners, the rural population and particularly the weaker parts of it. This does not mean that they should inhibit LSLAs, given their opportunities, but they have to carefully assess them, establish rules for procedures and deals, and monitor and evaluate their results. The last section will discuss some means to do so.

Unfortunately, governing elites are often not neutral to LSLA, they are profiting or even investors themselves, which makes it much more difficult to design pro-poor LSLA policies. Investors and their banks must have an interest to assure fair LSLA deals and results since otherwise their LSLA will be at risk, and the entire approach will be discredited, including the “good” investors. Likewise, the international community must be alerted since LSLAs have potentially far ranging consequences, in particular for social peace. Entirely banning LSLA through international agreements (e.g. LVC, FIAN 2010), however, is not a good option. It would certainly (and does already) expel investors from industrialised countries which are more or less responsive to social and economic pressure in their home markets. In contrast, investors from developing countries are less responsive, more so if from undemocratic countries. More generally, the power of sanctions of industrialised countries is vanishing since South-South trade is increasingly dominating world agricultural markets.

### 3 Regulating and Guiding Large-scale Land Investments and their Impacts

Starting from the discussed opportunities and threats, it is relatively straightforward in many instances what has to be given and done to make LSLA development-friendly and pro-poor. In general, only such large-scale land uses will be economically feasible and potentially socially acceptable which create substantially more profits than the sum of the profits of the existing smallholders and other users of the natural resources in question. Only in this case the necessary compensations can be borne.

To actually reach a fair benefit sharing, the principles on responsible agricultural investments currently being developed by a coalition of international organisations is certainly a good starting point (FAO et al. 2010). They comprise seven areas:

1. *Land and resource rights*: Existing rights to land and natural resources are recognised and respected;
2. *Food security*: Investments do not jeopardise food security, but rather strengthen it;

3. *Transparency, good governance, and the enabling environment*: Processes for accessing land and making associated investments are transparent, monitored, and ensure accountability;
4. *Consultation and participation*: Those materially affected are consulted and agreements from consultations are recorded and enforced;
5. *Economic viability and responsible agro-enterprise investing*: Projects are economically viable, respect the rule of law, reflect industry best practice, and result in durable shared value;
6. *Social sustainability*: Investments generate desirable social and distributional impacts and do not increase vulnerability;
7. *Environmental sustainability*: Environmental impacts are quantified and measures taken to encourage sustainable resource use, while minimising and mitigating their negative impacts.

A real challenge is that these areas need to be filled out in practice in the context of an often badly governed, non-transparent, interest-loaded, risky, and uncertain environment, where local and national elites are often part of the problem rather than the solution. For that, measures in many policy areas have to interplay, such as agriculture, natural resources, land use and taxation, labour regulation, decentralisation, infrastructure, international trade and investment agreements as well as individual investor contracts, food security, and rural development. Some of these measures can only be dealt with at the national level, others are local, many are of multi-level nature. Citizens, rural and national organisations, and public entities have to be well-informed. Optimally, regional economic communities would develop joint guidelines and set similar investment conditions in order to avoid a race to the bottom by competing for investors, but rather create better outcomes for receiving countries.

The principles do hardly touch on issues of fostering integration of LSLA into broader rural development strategies. As argued, additional efforts are needed to avoid negative impacts and create positive spillovers that not only create additional value added beyond the project but also assure deep-rooted growth and diversification effects in the longer run. This concerns in particular local and regional land-use planning, creation of economic, organisational, and institutional



spillovers, (attempts of) creation of balanced sectoral growth paths, etc. Some of the issues may be part of the conditionality for LSLA, but others go beyond the responsibility and capacity of investors. These are public tasks, for which public entities together with the private sector and civil society have to create ownership, using the impetus of LSLA as a starting point. Development cooperation can play an important role in facilitating this process and support those issues which fall outside the responsibility of the private sector but exceed the capacities of the public.

Finally, it has to be emphasised that LSLA will most certainly remain a minor part of the global agricultural setup, appropriate for some niches and some regions. There is no firm evidence that smallholders are necessarily less productive than large-scale producers, to the contrary they are often better (though at the detriment of labour efficiency which leads to low farm incomes), they are much more flexible, and there are often no good and secure alternatives for all smallholders in a given region in any manageable lapse of time. Smallholder agriculture will continue to dominate agriculture in developing countries, at least in those where they dominate today. However, smallholders must organise themselves to capture economies of scale, and it is certainly necessary that not only factor productivity (include that of labour) and output but also the average size of smallholder farms have to increase if they are to provide acceptable working and living conditions. Support to smallholders cannot be substituted by investor models, and well equipped, informed, and productive smallholders and their organisations are an important mechanism to avoid that LSLA takes place that are against the fundamental interests of rural populations.

### Notes

- 1) Biofuel production was a (heavily debated) more or less important contributor to this trend (OECD, FAO 2011).
- 2) It has to be noted that quantitative indicators of the extent of LSLA are extremely unreliable. One reason is that the basis for counting is not clearly defined. For instance, in the case of Tanzania more than 4 million ha are reported to have been requested by investors, but only 640,000 ha have been allocated and only around 100,000 ha have been granted formal rights of occupancy (Sulle, Nielson 2009).
- 3) It is generally recognised that there is hardly any “free” land available worldwide though the term is widely used. Rather, land is under-exploited for agriculture. The mentioned number, for instance, is calculated by accounting for land in geographical grid cells that is not cropped but has a reasonable yield potential, is not protected nor under forest and inhabited by less than 25 persons/km<sup>2</sup> (Fisher, Shah 2010 cited in Deininger, Byerlee 2011). Under these conditions, by traditional means only a fraction of the land can be used for cropping, the other being under long-term fallow and/or used for extensive livestock and wood gathering.
- 4) Compare von Braun, Kennedy 1994; Binswanger et al. 1995 and Mitchell 2011.
- 5) Compare FAO 2005, paragraph 8.
- 6) See the webpage of the international NGO Grain, <http://www.grain.org/front/>.
- 7) See the frequently cited case of Madagascar where a very large land deal of the central government with a Korean investor contributed to an overthrow (Makunike 2009).
- 8) See The Economist 2011, resuming a conference of the Institute of Development Studies at the University of Sussex, Brighton, with more than 100 case studies.

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