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H. Cochet and M. Merlet¹

Abstract

This article discusses one aspect of the land grabbing phenomenon that has been little addressed in the past: the economic dimension. The supposed economic efficiency of large-scale land investments is yet to be challenged.

During the second half of the 20th century, small-scale family based production systems became the rule on all continents in detriment of large-scale production. However, nowadays, we can witness the rapid development of new institutionalized forms of agricultural production (e.g. contract farming, agribusiness) that are characterized by an increased separation between capital and labour.

Based on a review of case studies from Eastern Europe and Latin America, the authors show that the abovementioned developments are leading to a growing gap between return on capital and remuneration for labour. Labour compensation is often well below labour productivity levels. Moreover, capitalist investors manage to negotiate very cheap access to land (whether sale or rent based) and there are currently no land taxes in place to compensate for this situation. Therefore, most of the value added goes to pay return on capital, disregarding both compensation for fair labour and the land rights holders (whether individual or collective).

Key words: *land grabbing, capital, value added, labour compensation.*

Introduction

It is nothing new for companies and governments of developed countries to take control of major agricultural areas in the developing world, but such takeovers have become outright popular since the agricultural price hikes of 2007-2008. Since 2009, public and private foreign investors have been acquiring or appropriating farmland to an extent that is unprecedented and nothing seems able to stop it. Some oil-rich countries, heavily dependent on the global market for food and/or biofuel, have decided to take care of their own food supply directly (or via private companies), thus bypassing the global market as an intermediary. But for the most

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part, the movement is led by private investors, keen on seizing the opportunity to make a profit and diversify their portfolio.

A number of land appropriation projects have emerged in the wake of the crises triggered by food price increases. Their proponents justify them based on the following arguments:

1. It is imperative to significantly increase agricultural production (and energy) on a global scale in order to meet humanity's growing needs (due to population growth, gradual adoption of developed countries' consumption habits, predictable depletion of fossil energy sources) (World Bank 2008, CAS 2010, investors in ARTE 2010).

2. There are still vast uncultivated areas "available". According to estimates by the *Global Agro-Ecological Zones Assessment of IIASA*², worldwide there are some 1.5 billion hectares of cultivated land, 4 billion hectares of forestland, 3.4 billion hectares of savannah, and 380 million hectares of urbanized land. Subtract the land presently covered with forest, and almost one billion hectares of good quality arable land remain. According to the FAO and IIASA, 80% of this available land is in sub-Saharan Africa and in Latin America and half of this is concentrated in just ten countries³ (Fisher G., Van Velthuizen H. et al. 2002; Roudart 2011).

3. The agricultural sectors in developing countries are unable to cope with this challenge; production and productivity are either stagnating or not increasing quickly enough and this due to a critical lack of investment capacity and access to modern technology (CAS 2010, FAO 2009, UNCTAD 2009, among others).

4. Neither the government, nor farmers have the necessary investment capacity. Public and private foreign investors from developed countries are the only ones able to provide the necessary capital. Foreign investors could potentially substitute both international development aid, in decline, and local farmers (CAS 2010, Deininger et al. World Bank 2011, FAO 2009, among others).

5. Provided they have substantial, cheap and stable access to land over the long-term, foreign investors are willing to provide the necessary capital to increase agricultural production. Since the labor required for the production process can often be recruited locally, such investments are a source of employment and income for rural areas (FAO 2009, Von Braun J. and Meinzen-Dick R. 2009, Deininger et al. World Bank 2011, CAS 2010, among others).

The social and political risks of these investments have been addressed in other arenas and have led to numerous studies (De Schutter 2009, Deininger and Songwe 2009, Cotula et al. 2009, Technical Committee on Land Tenure and Development 2010, World Bank 2011). Some of the issues addressed include non-transparency of land transactions, insufficient consideration of local governance in land and water resource management, and the possible eviction of local populations. In terms of food security, issues include exportation of food staples when local populations face food insecurity, and the substitution of food crops for the production of biofuels. With regards environmental risks, discussions have focused on the recent development of predominantly mono-crop systems, the heavy use of chemical inputs, pollution risks for soil and water, and biodiversity loss.

² The GAEZA of the International Institute for Applied Systems Analysis (Austria) is one of the rare studies on the systematic quantitative estimation of different categories of ecosystems worldwide. The typology of cultivated ecosystems is the most detailed. It was published in 2002 and, in particular, analyzed satellite images taken over the previous decade. See also the recent work of L. Roudart and M.A Even (2011).

³ However, three developed countries, the United States of America, the Federation of Russia, and Australia cover 18% of the world's territory potentially suitable for cultivation and not used today for agriculture (Merlet 2010b, on the FAO-IIASA data base).

It is interesting to note, however, that the economic efficiency of these investments has rarely been questioned or studied by the scientific community. Judging from the interest these types of projects generate among potential investors, it is as if their mere existence is enough to demonstrate their economic efficiency. This paper will examine the downside of the efficiency of these investments, taking care to clearly distinguish between financial efficiency and economic efficiency.

Two case studies were conducted under the supervision of one of the authors of this paper. One in Ukraine, where the surface area dedicated to cereal crops and legumes is expanding, via huge holdings of several thousands or tens of thousands of hectares. The other in a coastal region of Ecuador, where private agribusinesses dominate banana production for export.

In both cases, we highlight the *modus operandi* of each type of operation and the key factors of economic performance. This involves exploring the drivers of the expected high profitability of agricultural investments that rely on appropriation of increasingly large swaths of land.

The following criteria have been chosen to measure the technical, economic, and financial performance of the different agricultural operations found in Ukraine and Ecuador.

- (1) A localized approach that allows for in-depth study of small agricultural regions as opposed to use of possibly unreliable statistics for administrative units too large to account for diversity;
- (2) Data collection via face-to-face interviews and surveys of the population concerned, particularly farmers;
- (3) An analysis in terms of systems, which implies studying all different types of production units in the study area and not simply large companies;
- (4) Interviews and farm visits which are sufficiently in-depth and frequent so as to collect first-hand, reliable information for calculating the economic performance of the different types of production units;
- (5) A purposive sampling of production units to be studied in detail, in order to comprehend contextual diversity and to make comparisons between processes and techno-economic results;
- (6) Careful, in-depth analysis of existing social relations and value added distribution mechanisms.

Both case studies reveal that large agricultural operations are extremely profitable. The return on investment, measured by the internal rate of return, exceeds 10%, sometimes 20%, in line with the demands of increasingly assertive shareholders.

However, profitability alone is not sufficient to measure the economic viability of these farms. Moreover, as the economic rationale driving family farms is different from that of large operations, the criteria of financial profitability is inadequate to measure and compare technical and economic efficiency. With this in mind we have preferred to measure the net value added produced by farms. Net value added measures the creation of wealth and is equal to the difference between the gross product, and the value of the goods and services consumed in part or in full during the production process (Cochet and Devienne 2006).

We then study the distribution modalities of value added in order to compare the shares that goes to labour compensation, capital (shareholders and financial institutions), rental payments, and the state, in the form of tax or duties (See Appendix).

Boosting returns on investment by keeping salaries low: the case of Ukraine

Ukrainian agriculture is characterized by widely diverse production units and a dualistic approach. On the one hand, there are large holdings of several thousand hectares, former Soviet structures (*kolkhozes* and *sovkhozes*) that have been privatized. These massive farms lease a large number of plots (small in size, but forming large blocks) from the beneficiaries of the 1990s agrarian reform. On the other hand are much smaller family farms. The latter category includes a handful of small holdings of a few tens or hundreds of hectares and a multitude of micro-farms (between 4 and 5 million countrywide) of less than one hectare. This extraordinary socio-economic contrast is the direct result of both the Soviet legacy and the unequal capital distribution measures of former Soviet structures (Jaubertie et al. 2010).

In addition to these different types of farms, new institutional actors are emerging as investors from other sectors, placing their bets on the agricultural potential of the Ukrainian plains: an enormous surface area suitable for large-scale mechanization, which is cheaply accessible through leasing. The aim of these foreign and/or Ukrainian investors is to take control of the large production units privatized in the 1990s by purchasing equipment and leases from former landowners and shareholders. The conglomeration of farms has led to the creation of vast agro holdings of tens of thousands of hectares, sometimes more than 100,000 hectares. In some sectors, control of the entire value chain (upstream and downstream) has led to vertical integration, resulting in significant economies of scale.

Large farms (both those privatized in the 1990s and more recent agro holdings) with few employees to pilot powerful equipment and specialized in crop production for the international market are often the only ones considered successful. Thanks to these large-scale operations, and because there is even more room for improvement, Ukraine is well on its way to becoming one of the world's leading producers of cereals (Hervé 2008). Consequently, it is this farming model that is garnering all the attention of government officials and stakeholders in the agro-food sector.

The results of the comparative study that we conducted in 2009 and 2010⁴, however, lead us to qualify these statements. In terms of technical and economic efficiency, the results obtained by the larger operations are not always better than those of more modest holdings, including small village farms. Although labour productivity is sometimes quite high (comparable to levels achieved in the cereal regions of Western Europe, not including subsidies) land productivity (value added per ha) is relatively low due to the extensive production systems (decline of livestock production and rise of cash crop specialization) and low level of inputs (Jaubertie et al. 2010). Despite undeniable comparative advantages in terms of plot structure and soil conditions (in the “black earth” regions), relatively low yields (a maximum of 40 to 50 quintals per hectare in wheat and barley on the black soils of the central region, and just 30 quintals per hectare on the southern steppes, where the chernozioms are less fertile and the soil is brown) and climatic irregularity (early and late frosts, drought in the spring, and rains in July) limit the agricultural and economic efficiency of these systems⁵.

These structures however, appear highly profitable from a financial point of view—rates of return of 10% to 20%—which would explain their recent development (Jaubertie 2009). Two factors account for the high returns on investment: i) the inexpensive land, leased for €12-25 /

⁴ Research was conducted in 2009 and 2010 in three Oblasts (regions) of the Ukrainian Republic: Jytomyr, Mykolaïv and Kirovograd.

⁵ In addition, these results are extremely sensitive to international prices of cereal, chemical synthetic fertilizers, and fossil fuels.

ha / year (five to ten times lower than in the Paris basin area), and ii) low wages. A tractor driver/mechanic costs his employer as little as €200-300 per month—five to six times cheaper than farm labourers in the cereal areas of Western Europe. It is therefore the distribution of value added and not the level of return that explains the profitability of these farms.

The distribution of value added is increasingly beneficial to capital: the share that goes to wages has declined, land is cheap, and the amount being paid out to shareholders has increased⁶.

Table 1 exemplifies, with examples analyzed in 2009 and 2010, the move from large, private mixed farming operations with multiple crops in the Soviet period (type 1) to the more recent agro holdings with their tens of thousands of hectares (type 4). The table reveals a decrease in value added going to labour compensation, from 38% to just 3%. The share allocated to investors has increased from 54% to 89%.

Table 1: Distribution of Value Added between Salaries, Cost of Land (rent), Taxes and Return on Capital (in %) in the Different Types of Large Farms in Ukraine. Example for the Regions of Jytomyr and Kirovograd

Type of farm	Salaries	Rental costs	Taxes and income tax	Return on capital
1. Mixed cropping and livestock operations of the privatized former Soviet structures: 2000 ha of barley, wheat, oats, rapeseed, soybean and sunflower, and some corn and temporary pasture land, 100 dairy cows for 2200 l, 80 employees, heterogeneous equipment, partly used.	38	6	2	54
2. Farms specializing in cereals and oil and protein seed crops: 500 to 3000 ha of barley, wheat, oats, rapeseed, soybean and sunflower, minimum tillage, precision seed drills, new and imported high capacity equipment. Economic performance given for 1000 ha (11 employees)	19	9	3	69
3. Agro holdings specializing in large-scale farming: 5000-30,000 ha. Results for one of the agro holdings: 5,000 ha of barley, wheat, oats, rapeseed, soybean and sunflower, new and imported equipment, 33 employees.	10	9	2	79
4. Agribusinesses specializing in large-scale farming: > 20,000 ha rented (straw and reserve land), new equipment, powerful and imported. Shareholders (number N/A), 210 employees working the equivalent to full time (for 20,000 ha).	3	7	1	89

Source: H. Cochet, based on research by C. Jaubertie (type 1, 2 and 3; 2009) and Randimbivololona and Sanchez (type 4; 2010), under our supervision.

In some agro holdings of over 20,000 ha and specialized cereals and pulses for the global market, the distribution of value added appears to be particularly unequal. The profitability of large farms is guaranteed by reducing as much as possible the share of value added for

⁶ This has been confirmed by interviews with the management of “Agrogénération”, the biggest investor in Ukraine (ARTE 2010).

workers' compensation. In addition, duties / taxes and rents paid to landowners respectively accounted for only 1% and 7% of the net value added (Cochet et al., AGTER 2010; Randimbivololona and Sanchez, 2010).

Despite a labour intensive system, priority given to shareholders: the case of Ecuadorian banana production

The banana industry has been Ecuador's main source of foreign currency since the 1950s. The country ranks 4th in the production of bananas worldwide, supplies 35% of the world market, and is the world's leading exporter. With approximately US\$ 1.1 billion, the banana industry accounted for 24% of its agricultural GDP in 2008 and was the third largest source of foreign currency after oil and remittances (Banco Central del Ecuador 2007). However, unlike most of its competitors on the international market, Ecuador is unique in that its production structure includes both small and medium-sized producers as well as larger national and international companies. Despite the tendency of competitors to expand at the expense of smaller farms, the large companies are not the result of land grabbing phenomena. The smaller farms have been present for a long time in the region. The coexistence of farms of very different sizes (from a few hectares to hundred or thousand-hectare plantations) allows for interesting comparisons.

Despite the differences observed in terms of planted areas and the sophistication of equipment, all banana farms rely heavily on manual labour, whether for work in the field or at the processing and packing stations where the majority of tasks is not mechanized, e.g. hauling bananas and aerial spraying. These production processes are all labour intensive and create jobs. Thus, the difference in the number of jobs per unit area (or its inverse, the cultivated area per employee) is limited. Little more than one employee per hectare is needed on small family farms (1.1 to 1.2 MWU/ha) and only 0.69 employees/ha on larger, well-equipped farms. Considering the differences observed in yields and packing station efficiency, it is possible to highlight more substantial gaps in terms of production of banana boxes per worker. On family farms, and less equipped farms, production per worker is approximately 1000 crates⁷/ per worker / year, whereas it can reach over 3000 crates / worker in the better-equipped farms. This is a gap of 1 to 3. Once again, it is evident that the amount of manual tasks required in the production process is what keeps these differences minimal.

After adjusting for production costs, differences in labour productivity are somewhat less pronounced: the larger, better-equipped farms are two and a half times more productive than small-scale family farms (US\$ 5200 /worker compared to US\$ 2000 USD/worker).

The difference in these figures mirrors the efficiency of the packing and packaging tasks in the large, well-equipped stations. This is where the economy of scale lies, much more so than in the production process, where small family farms are as efficient as the large, private capital based operations run by salaried workers. The productivity gap between small and large landowners is widening due to smaller producers' lack of transportation means (like the fleets of trucks maintained by agribusinesses). Family farms are therefore unable to market their products directly to exporters, nor do they have direct access to export quotas, i.e., contractual agreements that guarantee the volume an exporter will purchase; as a result, they are forced to use intermediaries to get their production to port.

⁷ Crate destined for export, type XU of 18.14 kilos.

It would appear that the key factors underlying productivity differences do not stem from the economies of scale at the level of the production process itself (in the field), but rather the following:

- (1) The bargaining power to have a guaranteed contract with export companies and therefore higher prices;
- (2) The investment in an efficient packing station that operates 5 days out of 7 and whose unit costs (per banana crate) are much lower;
- (3) The investment in adequate transportation (trucks) to ensure the independent delivery of product to port.

In addition, having several large plantations equipped with efficient packing stations would facilitate the rotation of teams of workers to different harvest sites. This rotation system would increase labour productivity on those plantations that are genuine holdings with a diversified portfolio of operations.

While the gap in productivity remain modest between small and large farms, it is significant when it comes to income. Income differences are directly related to concentration of land and production means, and a drastic decrease in value added allocated to labor compensation, as shown in Table 2. The majority of value added is shared between employees who participate in the production process and the plantation owner (or shareholders), i.e., the farmer and his family in the case of a family farm⁸. Enormous inequalities are commonplace at this level and it is these disparities that characterize the banana fruit sector in Ecuador. Small producers operating just a few hectares of bananas receive only US\$ 4000 or 5000 annual pay for themselves and participating family members. From this meager salary, the farmer must also pay the day labourers he has employed to ensure harvesting and packing. Entrepreneurs managing large farms receive around US\$ 250,000 (for 150 ha of bananas)—50 to 60 times more (Cepeda and Cochet 2011).

Table 2 highlights the dramatic increase in the share of value added allocated to managers and investors (the owner or shareholders) as the size of the farm increases. While this share is zero or extremely low for family farms of a few hectares and for slighter larger manager-run farms (up to ten hectares), the value added rises from 15% to 30% for larger managed farms and increases to 45% for very large employee-run farms financed by private capital. The latter are sometimes part of an agro holding.

Once company managers have been paid, the surplus is paid out to shareholders. This model gives a particularly high internal rate of return, estimated at 19.5%, based on the average price fixed for a crate of bananas in August 2007⁹.

⁸ In general, only a small part of value added goes to taxes, duties and financial expenses (for those farmers who must borrow to meet their capital needs).

⁹ Calculated with a fixed rate for a crate of bananas in August 2007, that is US\$ 3.20 per crate. With a floor rate particularly low of US\$ 2.51 per crate, the IRR is maintained at 12%, a rate much higher than the market interest rate (Cepeda, 2009).

Table 2: Share of the Value Added in Different Types of Production Units in Ecuador

Types of banana plantations	Planted area per plantation	NVA/year (US\$) per plantation	Salaries paid (US\$)	Wages for the family labour (family income)	Total labour compensation	Share of Value Added devoted to labour compensation	Share of Value Added devoted to return on capital
A. Small family plantations, heirs of the agrarian reform process and colonization of the 1960-70s, landlocked region, difficult access to water for irrigation, no fixed market contract	3-5 ha	8 470	3 900	4 470	8 370	99	0
B. Small managed plantations that emerged from the division of former banana plantations or formed in the 1990s, better situated than Type A and usually having a more or less secured contract, irrigated by flooding	8-10 ha	19 600	13 200	6 400	19 600	100	0
C. Average-sized managed plantations; direct contract obtained via an exportation company	12-20 ha	35 600	24 700	5 500	30 200	85	15**
D. Large managed plantations originated from the <i>haciendas</i> of the first half of the 20th century, irrigated by sub-leaf spray, direct contract	20-50 ha	123 600	75 200	10 500	85 700	70	30***
E. Very large employee-run plantations financed by private capital, heirs of the large estates of the early 20th century, located near transportation routes, direct contract, irrigation by sub-leaf spray, truck fleet (agro holding).	80-250 ha	535 000	288 000	0	288 000	55	45

*Payment of interest on the capital borrowed + profit margin made by the companies (including Directors' pay in this case).

**Assumption: 50% of the family agricultural income is allocated to work in the fields and the packaging station, 50% represents management tasks (assumption based on specific amounts of family work allocated to each of these tasks, Cepeda, 2009)

***Assumption: 25% of the family agricultural income is allocated to work in the fields and the packaging station, 75% represents the management tasks (assumption based on specific amounts of family work allocated to each of these tasks, Cepeda, 2009)

Source: H. Cochet according to Cepeda (2009). See also Cepeda and Cochet (2011)

Distribution of Value Added and Appropriation of Ground Rent

The declining share of value added devoted to labour compensation is just one way to increase profitability of investments in agriculture. Free or inexpensive access to land is a second, equally beneficial way to increase profitability.

In Ukraine, investors are not permitted to buy land. They are kept out of the market by a moratorium on the sale of agricultural land established in 1995. However, this obstacle to the “proper functioning” of the real estate market has not in fact slowed down the process of land concentration. In fact, the opposite has happened. By signing leases with official landowners—the former workers of the *kolkhozes* and the *sovkhozes*—investors have access to land at very low prices. It costs investors less than €25 / ha / year, a rate much lower than in Western Europe, to gain access to the most fertile lands in the world. Investors benefit from secured access to land thanks to long-term leases without having to tie up a significant amount of capital. In this country and in many parts of the former Soviet Union, the transfer of land rights was conducted on a “voluntary” basis between investors and the legal owners of structures inherited from former collective farms. We use inverted commas for voluntary, because while the latter formally hold rights to the land, they do not have the means to effectively develop it. They lack working capital and the plots they have been allocated are situated within larger plots, rendering them impossible to access (Cochet et al. AGTER 2010).

Today, state governments make large areas of arable lands available to investors at little or no cost (Cotula, et al 2009). In countries like those of sub-Saharan Africa where the majority of land is subject to “customary” tenure regimes, plots are sold or leased to national and foreign investors via very long leases, depending on the good-will of the authorities.

The State can often use current legislation to take back such land, with or without compensation, and make it available to investors. In fact, many governments regard this as ‘state’ or ‘national’ land, as their states assumed all the prerogatives of the former colonial powers when they gained independence. If there are no title deeds, as is usually the case, there is a presumption of state ownership that has led to untitled lands being treated as ‘vacant and ownerless’ land, collective use rights to such land not being recognised, and these lands being incorporated into state land – both during the colonial period and after independence. The presumption of state ownership thus creates tensions between the legality (written national legislation, statutory law) and legitimacy of practices, as these lands are clearly neither vacant nor ownerless, and are governed by a system of traditional rights. (Technical Committee on Land Tenure and Development 2010).

From the investor’s perspective, even when land is developed in a way that requires secure access over a long period, a long lease is often preferred to a formal purchase in many countries. Leasing engenders less negative publicity and may be accompanied by favorable financial terms. A more or less vague commitment to build infrastructure is often enough, as was the case of Daewoo’s aborted attempt to take control of 1.3 million hectares in Madagascar.

Finally, contracts between investors and host States often provide partial or total tax exemption for the activities and assets of a company. In the Ukraine, the land tax is set at less than two euros/ha . Only a very small fraction of the value added (only 1% to 2%, see Table 1) goes to taxes and duties, thereby leaving even more for capital in the distribution of value added.

The apparent efficiency of large agricultural companies is often due to very low salaries, nearly free appropriation of natural wealth, cheap access to land and fiscal advantages.

Legitimated by their financial performance and ability to attract capital to agriculture, and often concentrated in export sectors, large agro holdings are an excellent way to appropriate the wealth of natural resources. Their prosperity is based on the seizure of resources and capture of revenues generated by the land (ground rents), or, in other words, unearned income (Merlet 2009, Technical Committee on Land Tenure and Development, 2010).

Land has the particularity of containing resources that are not directly linked to human labour¹⁰. The natural fertility of Ukranian *tchernoziom* soil or the rich alluvial soils of Ecuador leads to a significant differential ground rent immediately appropriated by investors. Walras, the father of marginalism, and Stuart Mill are just two of the founders of political economy who deemed it appropriate to distinguish between the fraction of production that is not the result of labour or the effective use of capital. Mill and Walras defended the idea of a common dimension of land and deemed it necessary to reintroduce the social aspect through land taxation. However, these approaches were abandoned with the development of neoliberalism and the transformation of land into a commodity. In 1944, Karl Polanyi argued in *The Great Transformation* that this commodification of land was both dangerous and absurd. Polanyi also refers to the coincidence between the development of colonial empires and the subsequent astronomical phenomena of appropriation of wealth on a global scale (Merlet 2009, Merlet 2010a).

The balance of power and the systems of rights in developing and former socialist countries allow predatory phenomena to develop at an accelerated speed, but under the guise of commercial and contractual relationships, therefore giving the impression of being freely accepted by both government and private investors. Appropriation of wealth no longer necessitates the mass migration of peasants and slaves as was the case in the conquest of the “New World” (Merlet 2010b). Liberal use of fossil energy, fertilizers and pesticides enable mechanized farming systems to clear land and set up large-scale operations in just a few years, or even a few months, and still manage to reserve the majority of value added for return on capital.

The concept of ground rent has been key to political economy since the 17th century. However, it fell out of use in the 1980s (Guigou J.L. 1982). Today, the very word “rent” is unclear in English. Its usage is now limited to a payment made to a landowner for use of land for some time. Analytical studies on land grabbing carried out since 2009 emphasize the importance of actively reintegrating the word rent (Merlet and Jamart AGTER-ILC 2009, Merlet 2009, Merlet 2010a, Technical Committee on Land Tenure and Development 2010). In the economic phenomena that we have just described, to consider land as an asset like any other amounts to theoretically justifying high returns on capital as the product of an efficient use of production methods. The fact is, whether through very cheap land purchases, leasing contracts or tenancy agreements, profits are primarily the result of appropriating natural wealth—the product of ground rents. The absence of land tax ensures this will continue over time.

Ownership of these land resources amounts to the privatization of a common good, revealed as such, admittedly, through land developments, but not the result of labour nor investment efficiency. Unwilling to question the fundamental assumption that land is an asset like any other, Deininger et al. in a 2011 World Bank report have no choice but to recommend improved management of real estate markets. They suggest, in particular, using auctions to

¹⁰ Part of what, at one point in time, appears as “natural” actually comes from the results of the work accumulated by generations of farmers, irrigation systems and the modification of lands and ecosystems that have been cultivated or used.

sell land where population density is low. They are nonetheless conscious of the considerable risks of large-scale land grabbing.

As things stand, the principles espoused by World Bank and other international organizations to ensure responsible investments that respect people's land tenure cannot be applied under present day conditions.

Returning to the concept of ground rent would mean acknowledging that land is neither an asset, nor a commodity. This acknowledgment is essential in terms of assessing economic viability as opposed to financial performance alone¹¹.

Financial Efficiency versus Economic Efficiency

As long as the socio-political and “reputational” risks are mastered, financial profitability of these kinds of agricultural investments is usually extremely high. Their economic efficiency, that is to say their capacity to create wealth, cannot be assessed on the same basis.

In Ukraine for example, labour productivity remains relatively low in the best-equipped agro holdings, as well as in large companies specializing in the cultivation of cereals and oil and protein seed crops. The benefits of cost containment and competitiveness gained in the world market are almost exclusively pocketed by capital, rather than used to increase yields and labour productivity.

In the regions we have studied, the net value added per ha, or land productivity, was about €140 to €230 / ha on large farms, whereas it reached about €400 / ha on mixed crop/livestock family farms of a few tens of hectares. Productivity of micro-farms ranged from €70 to €50 euros / ha—three to five times more productive per unit area than the large farms. This is despite the fact that the micro-farms cultivate land with less agronomic potential (pastureland).

Large farms specializing in oil and protein seed crops, and using powerful equipment, appear to work mainly for the international market. These farms create little more than 40% of the value added produced at the territorial level, despite mobilizing up to 80% of the available UAA. Family farm operations, on the other hand, are responsible for creating more than half of the value added (Jaubertie 2009, Pardon 2009, Randimbivololona and Sanchez 2010).

In the case of Ecuadorian banana production, the value added per unit area (NVA / ha) is slightly higher in large farms than in smallholdings but the gap is narrow: US\$ 2200 / ha in small and medium-sized farms (A and B), and from US\$ 3000-3600 / ha in the larger farms (type D and E). This is despite the fact that type A producers are forced to sell their produce at lower prices to intermediaries that have contractual quotas with exporters. The difference in yields between small family farms and large companies with high inputs is significant. However, the range decreases when costs incurred by the production process (excluding

¹¹ One should also question the notion of environmental efficiency and the many negative externalities that often accompany large agricultural projects. This is outside the scope of this article, but we are aware that it will never be possible to measure all economic, social and environmental impacts. Entrepreneurs are not obliged to pay for these negative externalities, and this is yet another reason for the high profits possible in current land grabbing processes. Capital mobility allows “investors” the liberty of not being concerned about the future, so long as there is other “available” land. This is not the case for peasant farmers who often have no choice but to adopt a strategy that preserves their land assets and natural heritage.

labor) are taken into account, particularly input consumption per hectare, considerably higher on large farms.

Most agricultural investment projects planned in the developing world concern lands with strong agricultural potential (fertile soil, good water resources). It is no coincidence, then, that such good farmland has long been occupied by agricultural societies with relatively high population density and labor-intensive production systems. One needs to be cautious about hasty claims regarding the conquest of “virgin” land (that is to say untapped and where the opportunity cost of land and water resources would be zero). These situations do exist but involve either pioneer fronts, to the detriment of forests (with considerable impact on the environment) or the development of areas left temporarily fallow as a result of disruptions related to the collapse of the former USSR (e.g. Ukraine and Russia). Elsewhere, large-scale investments by foreign public or private actors always involve the substitution of existing farming systems with new production systems.

In this case, new production processes are gradually or abruptly replacing the family farm. The agricultural efficiency of the latter, under certain circumstances (access to production means, market channels), is now recognized by both research institutions and major international organizations (Mazoyer 2001, Rosset 1999, BM 2008, IAASTD, 2009). Investors advocating the rapid replacement of the “traditional” and “inefficient” family farms systematically underestimate (1) the production levels of these existing farms; (2) the value added created by these systems, especially in light of yields and the low levels of inputs; (3) land productivity (value added per unit area); and (4) their capacity to evolve. The replacement of existing farming systems by entirely imported ones characterized by a limited number of commodities, simplified crop management, extensive use of chemical inputs and fossil fuels, does not necessarily result in a significant increase in value added and land productivity.

It is common for investors to report on the number of jobs they created, but how many jobs were lost in the process? Many new jobs simply replace existing ones. In this case, the resulting number of jobs created is well below the stated objectives, even negative. The drastic decline of payroll and its relative share in the distribution of value added will only decrease the purchasing power of the affected populations, thereby increasing poverty.

Conclusion

Land Grabbing and the Maximization of Capital Returns

Analysis of the distribution of value added from various types of farms, and in very different contexts, reveals not only the substitution of capital for labor (measured by the respective share of labor and capital in value creation) but also a change in the distribution of value added, to the benefit of capital and the detriment of labour.

Hence, the relative decrease in the share of value added devoted to labour compensation in large employee-run farms financed by private capital, the extremely low cost of access to land and almost no property taxes or redistributive measures, is paving the way to the development of a highly profitable capitalist agricultural sector insofar as labour compensation can now remain well below its productivity and generate significant profits.

Labour productivity gains are compounded by low wages. To the extent that land access can be traded at very low prices, particularly in the context of recent investments in developing

countries, the largest share of value added can be assigned to return on capital, resulting in a high internal rate of return.

Both agribusinesses and investment funds are adamant that it would be virtually impossible to obtain more than 6% or 7% return on investment for an optimized production of cereals or soybean without the exceptionally favorable socio-economic terms that currently characterize land grabbing (Combastet, 2010). Investors and agro holdings usually aim for an annual return of 15% to 20% (Bourdoncle 2009, Combastet 2010, Dromard 2010).

This can only be achieved by appropriating the wealth of natural resources, corollary of the extraordinary benefits granted to companies, but unrelated to the economic or agricultural efficiency of the investment: practically free access to land, low or no cost rent over long periods of time, the absence of land tax, not to mention incentives such as tax exemption for productions and/or imports of inputs and machinery (Technical Committee on Land Tenure and Development 2010).

The word 'investment' itself loses its meaning when financial efficiency comes above all from the process of appropriating wealth (not necessarily land, but ground rents), land grabbing and concentration, and privatization of common goods. The results of this process are largely irreversible. Peasant societies are destroyed and natural resources depleted.

It is critical to go beyond a moral, ethical, social critique of these phenomena and reveal, as we have attempted to here, how their proponents are deliberately mis-representing them. The financial efficiency of investments in agro holdings satisfies the interests of a minority (shareholders), but are economically unviable for the rest of humanity.

This observation sparks a fundamental debate over what is presented today as a panacea: the search for responsible investments based on codes of conduct and win-win operations.

References

ARTE. *Terres agricoles, quand Beigbeder achète l'Ukraine*. Reportage GlobalMag du 21 septembre 2010. Visible sur http://www.agter.asso.fr/article514_fr.html

Banco Central del Ecuador, 2007: *Anuario estadístico*. Quito.

Bourdoncle, Laure. Entretien avec Olivier Combastet (Pergam Finance). In *Vos terres, avis d'experts*. Le M.A.G. Cultures N°61, 29-05-2009. Repris par le blog de Grain, May 2009.

Centre d'Analyse Stratégique. [Clavé M. et Auverlot D. (coord.)] 2010. *Les cessions d'actifs agricoles dans les pays en développement. Diagnostic et recommandations*. La documentation française. Rapports de documents n° 29. Paris. (127 p.)

Cepeda Batista, D. 2009 : *Ces mains qui font le régime. Dynamique et performances agro-économiques des systèmes de production bananiers en Equateur*, thèse de doctorat AgroParisTech, UFR Systèmes Agraires et développement Rural, Paris (431 p.)

Cepeda, D., Cochet, H. 2011 : *Agrobusiness et agriculture familiale. Le secteur de la banane-fruit d'exportation en Equateur*, Revue Tiers Mondes (soumission en cours).

Combastet O. (Pergam Finance). Communication orale au groupe de travail du Centre d'Analyse Stratégique. Paris, 14 janvier 2010.

Cochet, H. 2008 : *Vers une nouvelle relation entre la terre, le capital et le travail en agriculture*. Etudes foncières n° 134 juillet-août 2008 : 24-29. Paris.

Cochet, H., Levesque, R., Jaubertie, C., Pardon, L., Randimbivololona, C., Sanchez D., 2010 : *La question agraire en Ukraine : dynamiques récentes et enjeux actuels*. Conférence AGTER, 30-11-2010. http://www.agter.asso.fr/article516_fr.html

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.

De Schutter, O. 2009 : *Large-scale land acquisitions and leases : A set of minimum principles and measures to address the human rights challenge*. Report of the Special Rapporteur on the right to food, General Assembly , United Nations, 28 december 2009.

Deininger K., Byerlee D. and al., World Bank, 2011: *Rising Global Interest in farmland. Can it Yield Sustainable and Equitable Benefits*, The International Bank for Reconstruction and Development / The World Bank. Washington, DC, USA (septembre 2010). (214 p.)

Deininger, K. and Songwe, V. 2009 : *Foreign Investment in Agricultural Production: opportunities and Challenges*. Notes, land Policy and Administration, Agriculture and Rural Development, The World Bank (4 p.)

Dromard, Thiébault. *A la poursuite de l'or vert. Le nouveau filon : les terres arables des pays en développement*. Rubrique Capital mode d'emploi. Quelques recettes pour devenir riche et le rester. Challenges n° 220. 8 juillet 2010. France.

Guigou, J.L. 1982. *La rente foncière. Les théories et leur évolution depuis 1650*. Economica, Paris. (954 p.)

Hervé, J.J. 2008.: *Les céréales de la Mer Noire*. Compte rendus de l'Académie d'Agriculture de France, Volume 94, n° 2.

IAASTD (International Assessment of Agricultural Science Knowledge and Technology for Development) 2009. *Agriculture at a Crossroad, Global Report*. Edited by : Bervely D. McIntyre (IAASTD, secretariat), Hans R. Herren (Millenium Institute), Judi Wakhungu (African Centre for Technology Studies), Robert T. Watson (University of West Anglia), Island Press, Washington DC, USA.

FAO, Département du Développement Economique et Social. 2009. *De l'accaparement des terres à la stratégie du gagnant-gagnant. Saisir les opportunités offertes par les investissements internationaux dans l'agriculture*. 2 p.

Fisher G., Van Velthuizen H & al 2002. *Global Agro-Ecological Assessment for agriculture in the 21st century*. FAO & IIASA [International Institute for Applied Systems Analysis] 2002

Jaubertie, C. 2009 : *Analyse-diagnostic dans la région de Jytomyr (Ukraine)*, Master dissertation, Comparative Agriculture and Agricultural Development Research Unit.

Jaubertie, C., Pardon, L., Cochet, H., Levesque, R. : 2010 : *Ukraine : une approche comparée des dynamiques et performances économiques des structures agricoles*. NESE, (sous presse).

Mazoyer, M. (FAO)2001. *Protecting Small Farmers and the Rural Poor in the Context of Globalization*. FAO 2001. (23 p.)

Merlet M., 2009. *Les phénomènes d'appropriation à grande échelle des terres agricoles dans les pays du Sud et de l'Est. S'interroger sur la nature des droits de propriété peut aider à faire la différence entre investissement et prédation*. Études Foncières, n° 142. Novembre – Décembre 2009. Paris. (4 p.)

- Merlet M., 2010a *Les grands enjeux de l'évolution du foncier agricole et forestier dans le monde. Des réponses globales sont nécessaires*. Études Foncières, n° 143. Janvier – Février 2010 Paris. (6 p.)
- Merlet M., 2010b. *Différents régimes d'accès à la terre dans le monde. Le cas de l'Amérique latine*. Mondes en Développement Vol.38-2010/3-n°151. (20 p.)
- Merlet, M., Jamart, C., 2009: *Commercial Pressures on Land Worldwide. Issues and Conceptual Framework*, International Land Coalition / AGTER, Rome. (18 p.)
- Pardon, L., 2009. *Diagnostic agro-économique d'une petite région agricole de l'Ukraine méridionale (oblast de Mykolaïv)*, Master dissertation, Comparative Agriculture and Agricultural Development Research Unit, AgroParisTech, Paris (131 p).
- Randimbivololona, C., Sanchez, D. 2010 : *Analyse-diagnostic agro-économique du District de Znamienka, Ukraine*. Mémoire Master degree, AgroParistech, Paris.
- Roudart, L. 2011. *Terres cultivables et terres cultivées : apports de l'analyse croisée de trois bases de données à l'échelle mondiale*. Etude commanditée par le service Statistique et Prospective du Ministère de l'Alimentation, de l'Agriculture et de la Pêche. France. (59 p.)
- Rosset, P. 1999. *The Multiple Functions and Benefits of Small Farm Agriculture In the Context of Global Trade Negotiations*. Transnational Institute, Paulus Potterstraat 20 1071 DA, Amsterdam The Netherlands.
- Technical Committee on Land Tenure and Development. [Merlet, M. Perdriault M., (AGTER)], 2010 : *Large-scale land appropriations. Analysis of the phenomenon and proposed guidelines for future action*, AFD, MAEE, Paris, June 2010. (53 p.)
- UNCTAD (2009) *World Investment Report, Transnational Corporations, Agricultural Production and Development*, United Nations, Septembre 2009.
- Von Braun J. and Meinzen-Dick R. 2009 "Land Grabbing" by Foreign Investors in Developing Countries: Risks and Opportunities, IFPRI Policy Brief 13.
- World Bank, 2008. *World Development Report. Agriculture for Development*, Washington, USA.

ANNEX

Calculation for Value Added and the Distribution of Value Added (Methodology)

Value added is obtained by deducting from the gross product the total amount of intermediate consumption used during a production cycle (one year) and, the depreciation charges of fixed capital used in the production process but for which the usage is multi-year (buildings, equipment, perennial plantations). Added value shows the wealth created during the production process.

Next, distribution of value added is studied between (1) labour compensation (salaries and, in the case of family farms: agricultural wages), (2) cost of capital (interest on any loans, shareholders' revenue), (3) rent paid to landowners and (4) the share paid to the State in taxes and duties linked to the production process. Possible public subsidies may also be included in the distribution of value added.

Distribution of value added reflects factors influencing producers' access to land, capital and labour resources and the consequences in terms of income.

