

Interpreting Global Land and Water Grabbing through Two Rival Economic Paradigms

Guglielmo Chiodi, Prof. Dr.
University “Sapienza” of Rome, Italy
President of “Nuova Accademia”, Rome, Italy¹

Abstract

The paper tries to address attention to the recent phenomenon of large-scale land acquisitions (LSLAs) made by foreign investors in low-income agriculture-based countries.

Since 2008, the phenomenon of LSLAs has increased at a very high speed and at a growing scale, although it has assumed different connotations, compared with previous LSLAs, with particular reference to the *space* concerned (the phenomenon has a *global* dimension), to the *motivations* behind it, to the *way* in which the acquisitions have been made, not to mention the *impacts* produced on local populations and the environment.

The aim of the paper is that of contributing to examine, from the *economic theory* historic-analytical perspective, some aspects of contemporary LSLAs, global land and water grabbing in particular, which seem passed generally unnoticed. The main thesis will be that the dominant economic theory (neoclassical economics) appears indeed as an *invisible* though *crucial* driver of that phenomenon, in so far as it profoundly shapes the ‘vision’ which supposedly lies at the very background of most of the subjects and of the policy makers and institutions involved.

It is suggested that an alternative ‘vision’ should be used instead – the contemporary classical economic theory rivaled by Sraffa in the 1960s.

Keywords: global land and water grabbing; classical political economy; neoclassical economic theory; contemporary classical economic theory.

Introduction

The present paper tries to address attention to the recent phenomenon of large-scale land acquisitions (LSLAs) in low-income agriculture-based countries, which have taken the form of land and water grabbing made by foreign investors through purchase and lease arrangements.

¹ I feel obliged to warmly thank Benedetta Merlo for having introduced me for the first time to the topic dealt with in this paper. It goes without saying, that misleading interpretations and errors therein contained are author’s only.

The aim is that of contributing to examine, from the *economic theory* perspective, some aspects of contemporary LSLAs which seem passed generally unnoticed. The thesis will be that the dominant economic theory (neoclassical economic theory) appears indeed as an *invisible* though *crucial* driver of that phenomenon, and so the ultimate responsible for the negative impact that land and water grabbing is having in the grabbed countries in recent years.

Parallel to this, a brief outline of an alternative economic paradigm will be made, which might help in the understanding of the phenomenon from a different perspective and in giving some useful hints for more viable and sensible policy prescriptions.

Analysis and Results

Definitions and Properties of 'Natural Resources'

It may worth considering from the very beginning some definitions and properties of what in the sequel will be intended as 'natural resources'.

A 'natural resource' is a good which is *not* the result of any economic process, such as air, land and water. Therefore a 'natural resource' cannot be reproduced at will (one cannot double a river or a mountain 'on demand'). From this point of view, it might be susceptible of being a 'scarce' resource - its 'scarcity' intended here as *absolute* scarcity, like that which can be attributed, for example, to a painting by Picasso.

A 'natural resource' is generally a good which enters, directly or indirectly, in *all* the production processes. In other words, it is generally inconceivable a good which does not need for its production the use of land and water, even if *indirectly*.

The above properties are all shared with another kind of 'natural resource', such as 'labour force', *except* for the property of absolute scarcity, because labour force can obviously be reproducible.

Introducing the Phenomenon of Natural Resources Grabbing

The phenomenon of LSLAs has been recurrent in the history of human populations, although manifested in different forms, space and time. Especially since 2008, however, the phenomenon has not only increased greatly at a very high speed and at a growing scale but it has assumed different connotations, compared with previous LSLAs, with particular reference to the *space* concerned (the phenomenon has a *global* dimension), to the *motivations* behind it, to the *way* in which the acquisitions have been made, not to mention the *impacts* produced on local populations and the environment and the impact which *will be* produced worldwide in the future.

It should be noted from the very beginning what is meant by LSLAs in the present context. The acronym refers not only to 'land', as is commonly intended, but also to 'water'. The acquisition of a piece of land, in fact, implies also the acquisition of rainwater and the possibility of using the natural water of rivers, lakes, canals thereby to sustain agriculture production.

The great majority of contemporary LSLAs assumes the form of 'land and water grabbing', which – according to the definition given by the International Land Coalition² – consists of land acquisitions made in violation of human rights and with no consideration of the possible impacts on local populations and the environment. More generally, they substantiate in the transfer to foreign investors (states or corporate firms) of the right to own or use large-scale land acquisitions (minimally of 200 ha per deal).

The acquisitions of vast areas of land and water have many aspects to be studied from different perspectives, which in turn requires the recourse to different disciplines. There is a huge amount of papers examining the causes and the consequences of the recent land and water grabbing, but the bulk of the recent literature has been so far mainly written by applied and development economists, agricultural economists and sociologists, and also by natural science scholars and engineers.³ To the best of my knowledge, however, *political* and *theoretical* economists have almost ignored the phenomenon⁴ - although there exist significant contributions on the issue of common-pool resources.⁵ Political and theoretical economists, in fact, have usually considered 'land' as a source of income (rent) and have thus overlooked its own peculiarities, as compared with those more properly pertaining to reproducible means of production and labour.

Scale, Scope and Motivations Behind the Phenomenon

Before entering the discussion of the central part of the issue, it may worth having an idea of the quantitative dimension of the recent phenomenon of land and water grabbing.

According to the World Bank's estimations⁶, deals on land acquisitions started growing rapidly since 2005, reaching its peak in 2009 with about 45 million ha acquired, most

² International Land Coalition (2011).

³ Cfr. Rulli, Saviori, D'Odorico (2013), Dell'Angelo, D'Odorico, Rulli, Marchand (2016), Dell'Angelo, D'Odorico, Rulli (2017), De Schutter (2011), Akram-Lodhi (2012).

⁴ Cfr. The Economist (2009).

⁵ For example, Gordon (1954), Hardin (1968), Ostrom (1990), (2010).

⁶ Cfr. World Bank (2010).

of them ranging between 10,000 and 200,000 ha. The International Land Coalition reported land acquisitions deals for more than 200 million ha.⁷

A paper⁸ provides statistically-based qualitative comparative analysis (QCA) regarding the land and water grabbing phenomenon involving 62 grabbed countries and 41 grabbers. All continents are being affected (except for Antarctica). The figures show that the grabbed areas amount up to 47% in Africa and up to 33% in Asia. In countries like Uruguay, Philippines and Sierra Leone, the grabbed areas amount to 19,6%, 17,2% and 6,9% respectively – which are quite consistent figures in proportion to the total area of each country.

As underlined above, in most cases ‘land’ grabbing implies *also* ‘water grabbing’. The same case study has assessed the grabbed water (green and blue) associated with land grabbing in 24 countries.

A further aspect of the dimension of natural resources grabbing refers to the structure and the conditions characterizing farms in the grabbed countries. Most of them have small-scale dimension and the indigenous people cultivate land for food production for their livelihood with traditional systems of production under the institutional arrangement of common property system. The latter is the most suitable system for pastoralists. Another paper⁹, designed to analyze social, institutional and land-use change dimensions, shows that 63% of the cases examined before land acquisitions resulted as small-scale farms, whereas 55% of them were using land under common-property regimes. In 61% of the cases, large-scale acquisitions were designated to produce crops as food, 36% for crops as non-food (*e.g.* biofuels). Foreign private companies had the lion’s share of the acquisitions, amounting to 54%, as compared with domestic private companies whose share was 29%. The mechanism of acquisition was based on government leases in 54% of the deals, whereas 21% of them refers to direct or indirect purchases, but 89% of the deals was in any case favoured by the national government of the grabbed country. Most of the cases examined in the paper already cited (44 out of 56) can be defined ‘grabbed commons’: for them there simultaneously exist the three conditions of (i) multiple claims (common property regimes, public land), (ii) small-scale farming and (iii) coercion (expressed in different forms).

On this very scenario large-scale land acquisitions took place. But before evaluating the *impact* they had on natural resources *and* people, it is worth examining the possible *motivations* behind them.

⁷ Cfr. International Land Coalition (2011).

⁸ Rulli, Saviori, D’Odorico (2013).

⁹ Dell’Angelo, D’Odorico, Rulli, Marchand (2016),

The most immediate and evident impulse of the recent 'rush' towards farmland made by governments and private companies has been that of securing a continuous and fairly stable supply of food and non-food crops to the benefit of the respective importing countries. That big 'rush' was occasioned by the rises in global food prices, whose index peaked dramatically in 2008.¹⁰

There were several factors behind that sharp prices increase, like rising incomes in most developing capitalist countries (e.g. China and India), the declining farm productivity, poor harvests due to climate change. However, by far the most important factors causing that dramatic food price increases should doubtless be attributed (i) to the development of financial instruments tied to agricultural commodities as speculative investment, and (ii) to the increasing production of biofuels.

Soon after the financial deregulation of the 1990s, in fact, the agro-commodity market was assailed by a huge number of contracts aimed at *speculating* on future price differentials to maximize profits. That spate of speculative contracts paralleled the already existing far smaller number of contracts aiming instead at *hedging* as a form of insurance against the price and production risks, mainly due to the obvious unpredictability of the weather. On the same agro-commodity markets, therefore, two abysmally different market mechanisms came to operate at the same time: on the one hand, the 'speculative' one, highly susceptible of continuous and unpredictable demand and supply impulses, completely detached from, and unsynchronized with, the natural course of agricultural production, which ultimately contributed to the *commoditisation* of land, which transformed the latter from a *social community symbol* to a mere *commodity*; on the other, the 'normal' demand and supply mechanism linked to the seasonal cycles of production.

The simultaneous operation of the two mechanisms outlined above contributed greatly to alert governments and private corporate that agro-commodity markets had entered a new phase of high volatility and unpredictability of prices.

In addition, the soaring of oil price convinced countries like the USA and the EU to adopt a new energy policy, directed to encourage the production of ethanol and biodiesel, and thus to enhance the production of biofuels. In this way, however, a *distortion* in the final use of some crops were created. In fact, although global supply of agricultural commodities has been steadily increasing since the 1980s, jointly with an increase in the global per capita food production, the food price increased.

These very facts show how feeble be the argument according to which a shortage of supply would have caused the food prices increases referred to above.¹¹

¹⁰ On this point, the analysis by Akram-Lodhi (2012) is much worth reading.

¹¹ As Akram-Lodhi (2012) convincingly shows.

Land and water deals were initially designed with the very purpose of transforming the agricultural sector of the 'target' countries more productive and technologically better equipped, and in this way to contribute to poverty alleviation of local populations. At the same time, the large-scale technological investments would have secured self-sufficiency in food to the 'targeting' countries – a typical 'win-win' situation in which every country would have gained.

However, by looking at the overall impact which the contemporary land and water grabbing have had so far, it is hardly possible to subscribe to any 'win-win' strategy. They have generally produced disastrous effects everywhere, notwithstanding the extreme difficulty in evaluating their specific impacts. Based on several studies, in fact, it can safely be affirmed that they negatively impacted on the environment, by putting severely at danger its stewardship, and on local populations, who were dispossessed of the land which constituted until the grabbing the source of their livelihood over many generations to come.¹²

It should also be noted that the massive exploitation of land, pursued according to the rule that technological advanced investments in agriculture can help developing countries in their own way towards a better development, could condemn all the other countries in the world to suffer of food and water shortage not in a so distant span of time, jeopardizing in this way the very existence of human race in the future.¹³

The Theoretical Background

As said above, a huge amount of papers has been written by *applied and development economists, agricultural economists and sociologists*, and also by *natural science scholars and engineers*, whereas *political and theoretical economists* have almost ignored the phenomenon.

What is peculiar, however, is that that they have used the dominant economic theory as their reference framework and - for some of them - as a tool to justify the policies pursued. They have paid little attention, if not at all, to the fact that land and water, by their own nature, are resources characterized by specific properties.

An explanation of land and water grabbing in the world today can thus have its roots inside the 'core' of the dominant market-centred economic theory, *viz.* neoclassical economic theory which - as is well known - is strongly founded on the following three pillars:

- the theory takes the *maximizing behaviour* of the individuals as the basic reference behaviour

¹² Cfr. De Schutter (2011), Zecchini, Mattiello (2016), Van Aken (2016).

¹³ Rulli, D'Odorico (2016) makes the point quite evident.

- the theory only focuses on those phenomena which the *market mechanism*, expressed by the dynamics of price-quantity duality, can capture and evaluate
- *production and distribution* of income and wealth are supposed to be best regulated by market forces

Far less known than the theoretical background 'core' of neoclassical economic theory are the theoretical consequences of it.

The task of the economic discipline is narrowly restricted in designing coordinates and procedures to allow individuals to better pursue their own self-interest, in what is supposed to be the most 'efficient' and 'optimal' way.

The dominant economic theory appears as a sort of engineering-neutral science, which puts out of its frame important aspects of the life of human beings, such as their livelihood as individuals and as community, and the environment in which they live.

Everything not-captured by the market mechanism is condemned to be relegated to the inferior rank of 'externality'.

Theoretical Investigations

On theoretical grounds, it should be mentioned the study by Gordon¹⁴ which, several years before the far more known work by Hardin¹⁵, has investigated the ultimate consequences of using common-property natural resources (in his case fishery) and the remedies which would have been necessary to take for their 'optimum' management, *i.e.* for not depleting them completely. Gordon uses the theoretical apparatus of the then (and *still*, unfortunately, in the opinion of the writer of this paper) dominant neoclassical economic theory. And even Hardin, who was not an economist, makes ultimately recourse to the same apparatus of Gordon to frame the 'tragedy of the commons' – as he dubbed the phenomenon – and to envisage possible solutions.

The dominant neoclassical theory - based as it is on the three pillars recalled in § 4 above - automatically puts any social, political, or ethical consideration *outside* its frame and perspective, with the consequence that the associated concepts of 'efficiency' and 'optimal' allocations of the resources become indissolubly dependent on the above mechanism and principles only.

It was then natural to the authors to propose the *property private regime* as the most 'efficient' remedy to the 'tragedy', and thus as the condition for the market mechanism and the principle of maximization to be respected.

¹⁴ Gordon (1954).

¹⁵ Hardin (1968).

Years later, Ostrom, in two different papers¹⁶, took a different view on commons. Although she had at her background the neoclassical market-centred paradigm, nonetheless – as she was *not* an economist, although in 2009 she won the Nobel Prize in Economics – she was far more open and less dogmatic than many other economists in coping with the management of common-pool resources. She adopted, in fact, an interdisciplinary approach, which allowed her to conclude that under certain circumstances self-management of the commons would effectively be the ‘optimal’ solution.

In the case of contemporary land and water grabbing, the market-centred neoclassical theory had a crucial role to play: not only as the basic reference framework but also as a formidable tool for *justifying* the grabbing. The social disruption created by the recent natural resources grabbing induces one to believe that great responsibility should also be debited to that theoretical apparatus, which indeed forges ideas and moves people in pursuing their own self-interest¹⁷.

It cannot be passed unobserved, however, that neoclassical economic theory does not constitute the only existing paradigm in the economic discipline.

In the last quarter of the 19th century neoclassical economics *displaced* classical political economy (whose roots can be traced back to the old classical economists of the 18th and 19th centuries, from Adam Smith onwards till Marx).

However, in the early 1960s of the last century a revival of classical political economy was successfully made by Sraffa (1960), whose framework, far more analytically robust and convincing than the neoclassical one, puts the reproducibility of the system and thus the livelihood of human beings at the very centre of the theoretical framework¹⁸.

The main characteristics of what might be called ‘*contemporary classical economic theory*’ are the following:

- any economy should aim at their own *reproduction*, *viz.* should guarantee the *subsistence* of each and every member of a community - which is just what LSLAs did not care at all;
- the economy is shown to be only a *part* of a far wider system;
- any model representing the economy is necessarily ‘*open*’ to political, social and institutional decisions, which are necessarily taken *outside the market*;
- *income distribution* is shown to be the result of unavoidable *conflicting views* which take place *outside* the system of production, *outside* the market and *irrespective* of any market mechanism.

¹⁶ Ostrom (1990), (2010).

¹⁷ On this point cfr. Chiodi (2017).

¹⁸ On the specific problem of reproduction and viability within the Sraffian system cfr. Chiodi (2010).

To put to the fore how much profound be the difference between the two alternative paradigms, and therefore how abysmal be the distance between the two-corresponding alternative 'visions' of the economy, it is perhaps worth quoting the definitions of Political Economy given by the authors who are rightly considered the patrons saints of the two respective paradigms.

Adam Smith's own definition is the following:

Political economy, considered as a branch of the science of a statesman or legislator, proposes two distinct objects: first, to provide *a plentiful revenue or subsistence for the people*, or more properly to enable them to provide such a revenue or subsistence for themselves; and secondly, to supply the state or commonwealth with *a revenue sufficient for the public services*. It proposes to enrich both the people and the sovereign.¹⁹

By contrast, Walras' definition of Political Economy - given in a crucial passage of his *Éléments* as a criticism of Adam Smith's definition already given above - is the following:

To provide a plentiful revenue for the people and to supply the State with a sufficient income are incontestably most worthy aims. [...] But it seems to me that this is not, strictly speaking, the object of a science. Indeed the distinguishing characteristic of a science is *the complete indifference to consequences, good or bad*, with which it carries on the pursuit of pure truth.²⁰

Walras' standpoint - which makes crystal clear the huge difference existing between the two alternative 'visions' - has been (and still is, unfortunately in the view of the present writer) the most popular and accepted view characterizing the economic discipline today.

As a matter of fact, after 1960, neoclassical economic theory *drowned out* 'contemporary classical economic theory', viz. classical political economy as *revived* by Sraffa (1960), for reasons which are still waiting to be analyzed in some details.

Conclusion

The recent phenomenon of land and water grabbing can properly be analyzed through the glasses of two alternative and rival paradigms: the neoclassical one, confidently based on market mechanisms, and the contemporary classical theory, which, by contrast, puts at its centre the basic right of human beings to live and the respect of their dignity.

¹⁹ Smith (1776, 1970), p. 375, italics added.

²⁰ Walras (1874, 1954), p. 52, italics added.

The paper suggests that the latter paradigm is far more equipped to better analyse and interpret the LSLAs rush still going on around the world today, and to give useful hints for more viable and sensible policy prescriptions.

Bibliography

1. Akram-Lodhi, A. H. (2012), Contextualising Land Grabbing: Contemporary Land Deals, the Global Subsistence Crisis and the World Food System, *Canadian Journal of Development Studies*, 33(2), 119-142.
2. Chiodi, G. (2010), The Means of Subsistence and the Notion of 'Viability' in Sraffa's Surplus Approach. In S. Zambelli (Ed.), *Computable, Constructive & Behavioural Economic Dynamics, Essays in Honour of Kumaraswamy (Vela) Velupillai*, (pp. 318-330). Routledge, Abingdon.
3. Chiodi, G. (2017), О некоторых «криминогенных» чертах экономической теории. *Вопросы политической экономии*, 1, 67-78, in Russian. (On Some 'Criminogenic' Features of Economic Theory", *Problems of Political Economy*.)
4. De Schutter, O. (2011), How not to Think of Land-Grabbing: Three Critiques of Large-Scale Investments in Farmland, *The Journal of Peasant Studies*, 38 (2), 249-279.
5. Dell'Angelo, J., D'Odorico, P., Rulli, M. C. (2017), Threats to Sustainable Development Posed by Land and Water Grabbing. *Science Direct*, 26, 120-128.
6. Dell'Angelo, J., D'Odorico, P., Rulli, M. C., Marchand, P., (2016), The Tragedy of the Grabbed Commons: Coercion and Dispossession in the Global Land Rush. *World Development*, 92, 1-12.
7. Daci, J. (2012). Protection of the Human Right to Water Under International Law-The Need for a New Legal Framework. *Academicus International Scientific Journal*, (6), 71-77.
8. Gordon, H. S. (1954), The Economic Theory of Common-Property Resource: The Fishery. *Journal of Political Economy*, 62 (2), 124-142.
9. Hardin, G. (1968), The Tragedy of the Commons. *Science*, 162 (3859), 1243-1248.
10. International Land Coalition (2011), *Global Assembly 2011*. Tirana, Albania, May 24-27, 2011.
11. Ostrom, E. *Governing the Commons*. New York: Cambridge University Press, 1990.
12. Ostrom, E. (2010), Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *American Economic Review*, June, 1-33.

13. Rulli, M. C., Savioli, A., D'Odorico, P. (2013), Global Land and Water Grabbing. *Proceedings of the National Academy of Sciences*, 110 (3), 892-897.
14. Rulli, M. C., D'Odorico, P. (2016), Environmental Impacts of Large-Scale Land Acquisitions in Africa. In C. Fiamingo, (Ed.) *Problems and Progress in Land, Water and Resources Rights at the Beginning of the third Millennium* (pp. 133-142). Broni (PV): Edizioni Altravista.
15. Smith, A. *The Wealth of Nations*, London: J. M. Dent & Sons Ltd., 1776,1970.
16. Sraffa, P. *Production of Commodities by Means of Commodities. Prelude to a Critique of Economic Theory*. Cambridge: Cambridge University Press, 1960.
17. The Economist (2009, May 21st), Outsourcing's Third Wave, *The Economist*,1-7.
18. Van Aken, M. (2016), Grabbing Farming Citizenship in the Middle East. In C. Fiamingo, (Ed.) *Problems and Progress in Land, Water and Resources Rights at the Beginning of the third Millennium*, (pp. 235-253). Broni (PV): Edizioni Altravista.
19. Walras, L., *Éléments d'économie politique pure*, Lausanne: Corbaz, 1874, 1954. (Translated by William Jaffé, Edition Définitive 1926. London: George Allen and Unwin Ltd, 1954.)
20. World Bank (2010), Rising Global Interest, *Farmland: Can It Yield Sustainable and Equitable Benefits?*, Washington, DC.
21. Zecchini, M., Mattiello, S. (2016), The Right of Sahelian Transhumant People, In C. Fiamingo, (Ed.) *Problems and Progress in Land, Water and Resources Rights at the Beginning of the third Millennium*, (pp. 181-192). Broni (PV): Edizioni Altravista.