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SEEDS AND BIODIVERSITY:

UPOV Convention and its implications on the practice of seeds sharing



LAND GRABBING: development or anti-development?

INTERVIEWS WITH:

- Pat Mooney
- Henk Hobbelink
- Giuseppe Li Rosi
- Ramón Vera Herrera



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Long Term Economy is an economy in the service of the protection and development of the world. It supports behaviors that ensure a better future to the following generations.

“Look in your children’s eyes and there you will find the Long Term Economy.”

The Right to Share Seeds: the UPOV Convention and its Implications on the Practice of Seeds Sharing

Written by
Grazia GIORDANO e Dario RUGGIERO¹
May, 2014 – www.lteconomy.it/en

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“The simplification of the environment that we have achieved in agriculture destroyed the complex relationships that hold together the natural world. Reducing the diversity of life we have reduced our choices for the future and we made more precarious our existence. We are on the brink of the abyss.”

(Cary Flower, Pat Roy Mooney, 1990)

“Seeds are the beginning and the source of all life; for millions of years the seeds have evolved in nature: floor plan are well established plants, stronger and more generous. But the seeds collected within itself, in addition to years of natural evolution, also all the changes that the farmers have received over the millennia thanks to the work of their selection. We know that the seeds have the ability to generate plants with characteristics always different for millions of years yet. In a seed there are, in fact, past and future.”

(Vandana Shiva, 2012)

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Source: campagna seed of freedom
<http://www.sciacca5stelle.it/2012/10/17/campagna-seed-of-freedom-5-stell/>

Dedicated to “Vandana Shiva” and “Pat Roy Mooney” for their great work in fighting for the preservation of the most important Earth’s heritage: “Biodiversity”



Vandana Shiva



Pat Roy Mooney

Premise

One of the most important challenges in the near future is the loss of agricultural biodiversity. This process began in the nineteenth century and enhanced in the twentieth century; determining factors in the escalation of this phenomenon have been the UPOV Convention (*International Union pour la Protection des Obtentions Vegetales*), the TRIPS (*Trade -Related Aspects of Intellectual Property Rights*) and the WTO (*World Trade Organization*). The UPOV Convention favors the marketability of patented seeds, those that are *new, distinct, uniform and stable*; that means *the exclusion of ancient and local crop varieties* (which rarely satisfy those conditions) from the market. The final result is "*a dangerous genetic uniformity*", dangerous because agricultural genetic diversity is the only effective toll we have to face global challenges like *climate change, the growing population and the appearance of new plant diseases and insects*.

This situation has led to the emergence of several associations which take care of ancient/local seeds and small farmers. Together with members of the civil society, they are making pressure on governments to recognize "the value of seeds as a common good", goods that belong to humanity and that cannot be a property of vested interests, goods that can be freely shared.

This article is structured as follows: the first paragraph outlines the main characteristics of the *International Union for the Protection of New Varieties of Plants* (UPOV); then follows a paragraph which describes the main benefits of such a regulation for big *agribusiness corporations*. A paragraph is dedicated to the concept of *biodiversity*, with the main data on the loss of biodiversity that has occurred over last century. Biodiversity is not the only victim of agricultural industrialization; small farmers are paying the main consequences of such a process; therefore, the article devotes a paragraph to the worsening conditions of *small farmers* around the world; In this regard, the last paragraph describes the recent riots that small farmers and civil society organizations are carrying out against the application of international regulations on seeds in their territories. Finally, there is an annex which describes some of the major international organizations which support small farmers and promote biodiversity around the world.



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Thanks are due to **Prof. Pat Roy Mooney** (ETC Group co-founder), **Dr. Ramón Vera Herrera** (GRAIN, researcher; general manager of the magazine Biodiversidad) and **Dr. Giuseppe Li Rosi** (Sicilian farmer, Terre Frumetarie) for their interviews on this topic (See the interviews with [Pat Roy Mooney](#), [Ramón Vera Herrera](#) and [Giuseppe Li Rosi](#)).

1. The UPOV Convention: the basic principles

“...the main point is that all these conventions, all Constitutional reforms on seeds, or the seed laws now being enforced in many countries, all regulations, standards and norms on the issue, are aimed to promoting intellectual property rights, patents, and other documents that protect the private right to keep, use and trade with certain varieties, which of course in the short term is resulting in a huge monopoly of the big companies dedicated to this effect. They protect their right to impose technological packages that pair lab-seeds with agrochemicals, they promote authoritarian crop intensification programs, and of course these regulations strive to impose a dependency on any producer that is growing maize, or rice (for example). Through this lab-seeds' dependency, through these imposed crop-intensification programs, they directly attack the subsistence strategies by which communities had solved their livelihood for many centuries....”

Ramòn Vera Herrera, Biodiversidad, Managing Director,
Interview With LTEconomy (April, 2014, www.lteconomy.it/en)

The UPOV, *International Union for the Protection of New Varieties of Plants* (from the French "*Union internationale pour la Protection des Obtentions Vegetales*"), is an intergovernmental organization based in Geneva, Switzerland. This organization was established by the *International Convention for the Protection of New Varieties of Plants*, signed in Paris in 1961, originally from Germany, the Netherlands and the United Kingdom. The Convention was revised in 1972, 1978, 1991 and now is signed by 71 countries. The Convention aims at promoting the development of new varieties of plants through the **Plant Variety Protection** (PPV), that is a system of Intellectual Property Rights (IPR).

The UPOV Convention (whose latest version was amended on 19 March 1991) defines the structure and the operating mechanisms of the organization, as well as the rules for the Plant Variety Protection. It identifies the concepts of both *the breeder* and *plant variety* and sets the conditions for the grant of the breeder's right (i.e., the criteria of novelty, distinctness, uniformity, stability - see Box 1) in the countries which have been signed the Convention.

Box 1 - UPOV Convention: the legal framework

The UPOV Convention is structured as follows: first of all it provides the definitions of *breeder* (Art. 1, iv and v) and *plant varieties* (Art. 1, vi); then it defines the conditions for the grant of the breeder's right: *novelty*, *distinctness*, *uniformity* and *stability* (Art. 5). The condition of *novelty* requires that at the date of filing of the application for a breeder's right, propagating or harvested material of the variety has not been sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety (Art. 6). The variety can be deemed to be *distinct* if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of the filing of the application (Art. 7). The variety can be deemed to be *uniform* if it is sufficiently uniform in its relevant characteristics (Art. 8). Finally, *stability* means that its relevant characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle (Art. 9).

Any decision to grant a breeder's right shall require an examination for compliance with the conditions under Article 5 to Article 9 (Art. 12). Nationals of a Contracting Party as well as natural persons resident and legal entities having their registered offices within the territory of a Contracting Party *shall enjoy within the territory of each other Contracting Party* the same treatment as is accorded to its own nationals, provided that the said nationals, natural persons or legal entities comply with the conditions and formalities imposed on the nationals of the said other Contracting Party (Art. 4).

Granting a breeder's right on new varieties of plants has important and deep consequences. In particular, the breeder can require the authorization on the production, reproduction and propagation of the patented variety (Art. 14). That means that the breeder can, for example, require a *license fee* or prohibit the sale or exchange of self-patented seeds. These provisions shall apply also in relation to varieties which are essentially *derived* from the protected variety. A variety shall be deemed to be essentially *derived* from another variety ("the initial variety") when it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety (Art. 14).

However there are some limitations to the application of the breeder's rights (Art. 15). In particular, the breeder's right shall not extend to i) *acts done privately and for non-commercial purposes*, ii) *acts done for experimental purposes*, iii) *acts done for the purpose of breeding other varieties*.

The Union has legal personality (Art. 24). The permanent organs of the Union are the Council and the Office of the Union (Art. 25). The Council consists of the representatives of the members of the Union, and, among the other things, it studies appropriate measures to safeguard the interests and to encourage the development of the Union (Art. 26). The Office of the Union carries out all the duties and tasks entrusted to it by the Council. It is under the direction of the Secretary-General (Art. 27). When this article went to press, the Secretary-General was *Francis Gurry*.

For further information on the UPOV Convention, please visit the following link:

<http://www.upov.int/upovlex/en/conventions/1991/content.html>

The application of the UPOV Convention's laws was initially limited to European breeders; then it was extended to non-European countries with the approval of Article 27, 3.1 b) in the *Trade-Related Aspects of Intellectual Property Rights* (TRIPS). This Treaty entered into force on January 1995 with the "Uruguay Round" and the "Marrakesh agreements".² The TRIPS is an integration to the *World Trade Organization* (WTO) for regulating international commercial aspects of intellectual property.

More specifically, Article 27, 3.1 b) of the TRIPS Agreement states that "Country-members may exclude from patentability: *plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.*" Therefore, this article force WTO country-

² These agreements established the GATT (General Agreement on Tariffs and Trade), the CATS (General Agreement on Trade in Services), the WTO (World Trade Organization) and the TRIPS (Trade-Related Aspects of Intellectual Property Rights).

members to put in place a legal system for patentability in order to intellectually protect new varieties of plants; it is the first international agreement that made the "patentability" of living forms compulsory. As a result, WTO country-members have applied UPOV Convention-like systems in order to protect new varieties of plants.

2. The UPOV Convention: its evolution and the main benefits for the agribusiness multinationals

"The seed market has experienced a big process of concentration over the past forty years. Back in the 1970s, no single company had even 1% of the global commercial seed market and there were over 7 thousand different sources of seeds (public and private) around the world. Today, only 3 companies (Monsanto, Syngenta and DuPont) realize 54% of all global seed sales; one, Monsanto, owns 27% of the global market. Moreover, if you look at the top 6 companies (Monsanto, Syngenta, DuPont, BASF, Bayer, Dow), they not only control 60% of the seed market, but also 95% of the pesticide market. Why those companies have experienced such an increase in their market share? First of all they have a big influence on politics and governments. So, national and international laws (included the UPOV convention) strongly support them in their efforts in gaining control over the food system; in particular, the regulatory framework on the intellectual property rights over plant varieties favors the diffusion of technologies that, because of the big cost in research, can be developed only by big corporations."

Pat Roy Mooney, ETC Group, Founder and Managing Director
Interview with LTEconomy (April 2014, www.lteconomy.it/en)

UPOV evolution

When *plant variety protection* (PVP) was first standardized by the UPOV convention in the 1960s, it was a mostly copyright-like form of intellectual property. The variety owner had a monopoly on the commercial propagation and marketing of the variety, but little control over other uses. Farmers were free to multiply seed for their own use for as long as they wished. Other breeders could freely use protected varieties to develop their own material. This changed dramatically with the 1991 revision of UPOV. Based on successful lobbying from the global seed industry, *the revision turned PVP into something very close to a patent*. Farm-saved seed was allowed only as an optional exception, restrictions were put on further breeding, and monopoly rights were extended all the way to harvest products. This is the version of UPOV which is now being rapidly rolled out across developing countries as a result of the WTO TRIPS agreement.

Box 2 - UPOV Convention's evolution

Before UPOV 1961

With a few insignificant national exceptions, no forms of Intellectual Protection Rights (IPRs) were available for plant breeders until just over 30 years ago. Therefore, the UPOV treaty was the beginning of plant IPRs. However, although adopted in 1961, it did not come into practical use before the 1970s.

That is because, before that time, seed industry wasn't powerful enough and had not sufficient lobbying power to secure IPR protection, first with UPOV Plant Variety Protection (PVP), and soon after with industrial patents as well.

However, there is evidence of lobbying at least from the 1920s, when the industry was able to use several other mechanisms to reduce competition from traditional farmers' seeds.

- *Seed laws*: by making seed certification mandatory and trade in uncertified seeds illegal, governments indirectly supported commercial seeds against traditional seed-exchange systems.
- *Trademarks*: even if the seed as such could be freely multiplied and traded, only the breeder had the right to use the trademarked name.
- *Farm credit policies and support schemes*: as a farmer you may be locked out from low-interest loans, crop insurance or direct support payments unless you use a government-approved commercial variety.
- *Hybrids*: Hybrid seed became a means to force farmers to buy new seed every year. They cannot be reproduced on-farm, because it requires two different parent lines, which are kept secret and closely guarded by the seed company.

UPOV 1961

When the serious lobbying for an international plant IPR system started after the Second World War, the seed industry was not asking for specific PVP systems, but for ordinary industrial patents on plants.

However, the idea of industrial patents on plants met with double resistance. Several European governments thought that it threatened the farm economy by giving industry too much power over the seed supply. Moreover, as being living and evolving organisms, plants cannot be exhaustively described in the way required by a patent – well enough to allow someone else to “repeat the invention” exactly. This is why the International Association of Plant Breeders (ASSINSEL) had to settle for a *sui generis* (a specific) IPR system, and jointly with the French government it initiated the negotiating process that was to result in the UPOV Convention of 1961.

This first version of UPOV-PVP was more like a copyright than a patent. The scope of the monopoly was limited:

- The owner had the right to control commercial propagation and marketing, but no other uses. *Farmers were free to save seed for their own use for as long as they wished, and use the harvest without restriction.*
- There were no rights over the genetic content of the variety. *Other breeders could freely use a protected variety to develop their own material.*
- *There was no novelty requirement.* As long as the variety was “distinct, uniform and stable” it could be protected.
- *There was no requirement to prove invention.* A pure discovery could also be protected.

UPOV 1991

In 1980, the US Supreme Court ruled that there was nothing to stop *patents* on any kind of living organisms. Europe and other developed countries rapidly followed suit. Behind this decision there was probably the growing lobbying power exercised by “genetic engineering companies”. Such companies were larger than

traditional seed companies and, by patentability of seeds they could finally enter the market of plant breeding. That caused near-panic among conventional seed companies. One of their coping strategies was to demand a radical strengthening of UPOV PVP, to make it more comparable and competitive with patents. That brought to the birth of UPOV 1991.

- *Farm-saved seed is no longer automatically allowed.* It could be allowed only as an *optional exception* – and even then the seed company has the right to a royalty payment.
- *The monopoly also extends to the harvest, and optionally even to products made from the harvest.* If a royalty has not been paid on the seed, the variety owner can demand payment from the final consumer of the harvest.

Table - UPOV's gradual encroachment

	UPOV 1961/1978	UPOV 1991	THE NEXT UPOV
Coverage species	Optional, minimum any 24 species	Must cover all plant species	Must cover all plant species
Coverage uses	Propagating material	All plant material, Optionally products	All plant material and products
Period of protection	15-18 years	20-25 years	25-30 years
Use for breeding	Always allowed	Always allowed, but no new PVP for "essentially derived varieties"	No use until after 10 years, then only with registration and royalty to owner
Use farm-saved seed	Always allowed	Allowed only as optional exception and only if royalty paid on seed	Never allowed
Application procedure	Separate for each country	Separate for each country	One international application for all countries
Double protection with patents	No	Yes	Yes

* The UPOV Convention of 1961 only served to protect the reproduction for commercial purposes and the sale of the variety that might be distinct, uniform and homogeneous.

Source: LTEconomy, elaboration on GRAIN data

- Other breeders are still allowed to use protected varieties for breeding, but if a new variety is "*essentially derived*" from an existing one, it does not qualify for a PVP of its own. This rule was introduced specifically to block genetic engineering companies from getting new PVP protection on varieties just because they added a single gene.
- There is now a *novelty requirement*.
- *Double protection* (PVP plus patents) is now allowed.

- The minimum term of protection is increased to 20–25 years (previously 15–18).
- All *plant species* must be covered (previously only a minimum of any 24 species).

Another major development also started in the 1980s – the negotiation of the WTO TRIPS agreement, which would become the vehicle for expanding plant IPRs into the developing world. TRIPS made it mandatory for governments to provide some kind of IPR protection for plants – by patents or a sui generis system or both. Although neither PVP nor UPOV are explicitly mentioned in WTO texts, the TRIPS agreement has caused a large number of developing countries to adopt UPOV-like PVP systems over the past decade, for lack of a better alternative. Most want to avoid patents on plants. They could develop their own national sui generis systems from scratch, but that is a very resource-consuming task compared to adopting a ready-made solution off the shelf. Many of these countries have also become UPOV members, usually as a result of bilateral pressure from the USA, EU or other developed countries.

According to GRAIN (February 2007), UPOV could undergo a further revision in order to bring the “end of farm-saved seed” and of free access to PVP-protected material for plant breeding; a seed deposit system will be created: only seed which is accessed from a depository according to a formal procedure and with a licence agreement will be legal to use for further breeding. An international system will be created for filing a single PVP application valid in all UPOV member states.

For further details, please see “The end of farm-saved seed? Industry’s wish list for the next revision of UPOV”, GRAIN (February, 2007): <http://www.grain.org/article/entries/58-the-end-of-farm-saved-seed-industry-s-wish-list-for-the-next-revision-of-upov>

The benefits for multinationals

The 1991 revision, together with the progressive extension of the UPOV Convention to more countries provide big benefits for agribusiness multinationals. These benefits come from a substantial position of monopoly in the seed market (they have the scale needed to better satisfy UPOV’s conditions for plant protection). However, they are monopolizing not only the seed market, but *the entire food market*, and linked sectors like the *pharmaceutical and chemical industry*.

First of all, profits for multinationals will come from *the selling of their seeds* in a growing monopolized market, while the practice of saving seeds is becoming ever more difficult for small farmers. *Royalties* are another source of money. UPOV 1991 gives breeders the right to demand a royalty on all farm-saved seed and, if a royalty has not been paid on the seed, the variety owner can demand payment from the final consumer of the harvest.

Moreover, the legal protection for patented seed is also extended to the case of *accidental contamination of lands*. Therefore, also farmers who didn’t use intentionally patented seed are forced to pay a royalty to the breeder’s seed owner. That means that almost all farmers can be affected from this form of “financial draw”: in fact, according to some studies, the contamination of crops can occur in many ways, not only artificially (with the introduction of material from areas where patented seeds are cultivated), but also by natural systems of reproduction and dissemination like wind and insect pollination.

Seed sales and royalties on the use of patented seeds are not the only source of profits for seed multinationals; other money comes from the *chemical market*. In fact, Multinationals' hybrid seeds are genetically flattened and need a strong use of *fertilizers* as well as of *pesticides* to grow.

Finally, through the use of *hybrid seeds*, multinationals foster their annual entries by forcing farmers to buy seeds every year. This is the result of some genetic engineering techniques such as the *protoplast fusion* (by which two distinct species of plants are fused together to form a new hybrid which cannot be reproduced by the farmer) and *Cytoplasmic Pollen Sterility* (that destroy the ability of plants to grow and reproduce).

Therefore, big multinationals are monopolizing both the market of seeds and the agrichemical sector. This monopolized and industrialized agricultural model means higher costs (in terms of seeds, chemicals and machines) for small farmers. *They were once economically self-sufficient; now they are forced to go into debt to keep alive their business*. Their agricultural activity is becoming economically unsustainable.

Box 2 - What is a multinational company and what are the main agribusiness multinationals?

A multinational company is a large company that has its assets in more than one country of the world. It is also called "transnational", as its business process is often split among its branches located in various countries. According to the United Nations' (UN) definition, in order to identify a multinational company, it is sufficient a share of at least 10% in a foreign subsidiary.

Multinational companies were born during the second half of the nineteenth century in the United States and Europe to export agricultural products and raw materials in other industrialized countries. Over time these companies have consolidated their direct presence in foreign countries, first by creating commercial branches, and, then, by establishing direct production plants. After the second world war, these companies began to operate also in the Developing Countries, mainly attracted by low *cost of production*. Currently, big agribusiness multinationals operates in three sectors: 1) Seeds; 2) Pesticides; 3) Fertilizers. (ETC Group, September 2013)

1) *Seeds*: only three companies control more than half (53%) of global sales in this sector, while the top ten companies control more than three-quarters of sales (75.3%). In 2011, the commercial seed market had a global turnover of \$34,495 million.

Table - World's Top 10 Seed Companies, 2011

Rank	Company	Seed Sales, 2011 US\$ millions (US\$)	% Market Share
1	Monsanto	8,953	26.0
2	DuPont Pioneer (USA)	6,261	18.2
3	Syngenta ((Switzerland)	3,185	9.2
4	Vilmorin (France)	1,670	4.8
5	WinField (USA)	1,346	3.9
6	KWS (Germany)	1,226	3.6
7	Bayer Cropscience (Germany)	1,140	3.3
8	Dow AgroSciences (USA)	1,074	3.1
9	Sakata (Japan) 548 1.6	548	1.6
10	Takii & Company (Japan)	548	1.6
Total top 10		25,951	75.3

Source: LTEconomy, elaboration on ETC Group (September 2013)

<http://www.etcgroup.org/sites/www.etcgroup.org/files/CartelBeforeHorse11Sep2013.pdf>

2) *Pesticides*: in this sector, six companies hold 76% of global sales, while the top ten companies in the world account for almost 95% of the global market. If we also consider FMC Corporation, the first eleven companies control almost the entire industry (about 98%). In 2011 these eleven companies realized a turnover of \$43,041 million.

3) *Fertilizers*: the global fertilizer market reached \$160,300 million in 2011. The top 10 companies controlled 41% of the market in 2011, with a turnover of \$65 million.

Table - World's Top 11 Agrochemical Companies, 2011

Rank	Company	Crop Protection Sales, 2011 US\$ millions	% Market Share
1	Syngenta (Switzerland)	10,162	23.1
2	Bayer CropScience (Germany)	7,522	17.1
3	BASF (Germany)	5,393	12.3
4	Dow AgroSciences (USA)	4,24	9.6
5	Monsanto (USA)	3,240	7.4
6	DuPont (USA)	2,900	6.6
7	Makhteshim-Agan Industries (Israel)*	2,691	6.1
8	Nufarm (Australia)	2,185	5.0
9	Sumitomo Chemical (Japan)	1,738	3.9
10	Arysta LifeScience (Japan)	1,504	3.4
11	FMC Corporation (USA)	1,465	3.3
Total Top 10		41,576	94.5
Total Top 11		43,041	97.8

* acquired by China National Agrochemical Company

Source: LTEconomy, elaboration on ETC Group (September 2013)

Table - World's Top 10 Fertilizer Companies, 2011-

Rank	Company	2011 Sales US\$ millions	Market Share (%)
1	Yara (Norway)	10,277	6.4
2	Agrium Inc. (Canada)	10,113	6.3
3	The Mosaic Company (USA)	9,938	6.2
4	PotashCorp (Canada)	8,715	5.4
5	CF Industries (USA)	6,098	3.8
6	Sinofert Holdings Ltd. (China)	5,760	3.6
7	K+S Group (Germany)	4,349	2.7
8	Israel Chemicals Ltd. (Israel)	3,836	2.4
9	Uralkali (Russia)	3,496	2.2
10	Bunge Ltd. (USA)	3,147	2.0
Total top 10		65,710	41

Source: LTEconomy, elaboration on ETC Group (September 2013)

3. The consequences on biodiversity

“Historical episodes and increasing evidences suggest that humanity cannot survive from big global changes (climate, new plant diseases, land erosion and so on) unless we have access to a wide diversity (both in terms of species and varieties) of livestock and plants. In that sense, the most terrifying figure is that *45% of all the private agricultural research is focused on just one-crop - maize; and that means less access to diversity.*”

Pat Roy Mooney, ETC Group, Founder and Managing Director
Interview with LTEconomy (April 2014, www.lteconomy.it/en)

The enhancement of the Plant Variety Protection system in developed countries and its extension to Developing Countries is seriously threatening world's biodiversity. But what's agricultural biodiversity? Why it is so important? Lets' start by explaining what is "agriculture" and when its origin can be traced back.

Agriculture is essentially a recent invention in human history. The human species, known as *Homo sapiens*, has existed for about 250,000 years. For most of that time, humans survived as *foragers* or *hunter-gatherers*, gathering wild plants and hunting animals in their natural: "gathering" used to cover 70% of human food. It has been estimated that, over the history, only 6% of humans have lived in an agricultural society, 4% in an industrial society and 90% have lived simply as hunter-gatherer communities. Primitive communities could rely on a huge variety of potential food sources: at least two hundred thousand species of plants.

“The origin of farming occurred to some 10-15 thousand years ago through the efforts of hundreds of people living in different places, as well as in different social and ecological conditions”(Cary Fowler, Patt Mooney , 1990). Initially, agriculture integrated hunting and gathering activities; then it became the predominant activity for humans: fourteen thousand years ago the entire earth belonged to hunter-gatherer communities; since then hunter-gatherer societies have gradually disappeared, to form only 1.0% of the population in AD 1500, while in 2000 they accounted for only 0.001%. Agriculture is based on the *process of domestication*: Neolithic farmers, among the 250 thousands of species, selected 200-250 species to develop varieties among them. This process of domestication has last for thousands of years, giving life to a lot of different varieties suitable for almost every environmental conditions imaginable. The domestication of plants is one of the most important experiment made in the human history: in the words of Pat Money (1990), with the domestication of plants, there was literally an “explosion of evolution”. As a result of such evolution, plants have adapted to any changes in the environment (soil, rain, day length, insects and diseases). Now, for example we can find “apricots”, a fruit typical of warm climates, in the Himalayas, where temperatures fall consistently below zero.

Box 3 - The centers of diversity

Thanks to the studies of Nikolai Ivanovich Valivov (1926), a famous biologist, geneticist and explorer of the twentieth century, and those of Harlan JR (1970), who refined the theories of Valivov, now we know the areas where early farmers domesticated food crops. Valivov identified the so called *centers of origin* of cultivated plants. The center of origin is a geographical area where a group of organisms, either domesticated or wild, first developed its distinctive properties. Centers of origin are also known as *centers of diversity*. In fact, they are the geographic area where the plant exhibits the highest degree of variation. Valivov identified *eight primary areas of diversity (Vavilov Centers of Diversity)*: 1. *China* (buckwheat, soybean, peach, cherry, onion); 2. *India/Indochina* (rice, chickpea, cucumber, mango, orange); 3. *Central Asia* (common wheat, peas, lentils, mungbean); 4. *The Near East* (rye, alfalfa, fenugreek, lentils); 5. *The coast of the Mediterranean Sea* (durum wheat, cabbage, lettuce, celery); 6. *Ethiopia* (barley, pearl millet, flax, coffee, sesame); 7. *Southern Mexico/Middle America* (corn, lima beans, cotton, sweetpotato, pepper); 8. *South America* (strawberry, potato, tomato, pumpkin, pepper).

The theory of Valivov is fundamental, from both a theoretical and practical point of view. This theory, in fact, suggests that if we need a plant resistant to a particular disease or insect, we should look for in the centers of origin "because they are where the plants and insects are co-evolved" (Cary Fowler, Pat Mooney, 1990). Therefore, the future of our food and our quality of life depends largely on the preservation of these areas.

The extension of UPOV-like PVP systems in almost all WTO countries-members is threatening the natural process of domestication of plants mainly for the following reasons:

- 1) uniform plant varieties and strict rules on marketability of seeds are eroding genetic biodiversity on their own, therefore reducing the access to a much more variety of seeds;
- 2) local and traditional seeds can hardly meet UPOV's conditions and so are automatically excluded from the market;
- 3) the ban of free trade and saving of patented seeds is destroying the practice of seed sharing, by which farmers have created the most precious plant varieties for thousands of years. This practice is valuable not only in agricultural terms but also in cultural and societal cohesiveness terms: "free sharing of seeds is something that goes beyond the simple barter; it involves a mutual exchange of ideas and knowledge, culture and legacy, a complete heritage of traditions and skills" (Vandana Shiva, 2007).

The following historic examples show how dangerous and, in some cases catastrophic, can be the genetic uniformity of plants.

In 1999 a typhoon struck *Orissa*, an Eastern-Indian state: 30,000 people were killed, several crops were destroyed and future production compromised as salt water flooded agricultural fields. Farmers recovered from this disaster only by drawing native seeds resistant to salt water stored in the *Navdanja's* seed banks³. In 1904 an epidemic of stem rust severely damaged the wheat crops in

³ For a description of the *Navdanya* association, please see the annex at the end of the article.

the *United States*; in 1870 the coffee rust disease - caused by the fungus *Hemileia vastatrix* - almost destroyed the coffee industry in *India*, *East Asia* and parts of *Africa*; in 2013 the same disease severely affected coffee crops in *Central* and *South America*. In order to recover, in all these situations resistant seeds were found and collected from the centers of diversity (Cary Fowler, Patt Mooney, 1990).

In the U.S. in 1970, the *Southern corn leaf blight (SCLB)* reached epidemic status and destroyed about 15% of the corn belt's crop production. Those crops were made of hybrid varieties. The problem was solved by recurring to resistant varieties coming from Latin America and Africa. However, the most evident warning known so far is the famine occurred in Ireland between 1845 and 1849: the entire crop of potato was destroyed by a single disease commonly known as *potato blight*; 1 million Irish died and 2 million more fled the country. That happened because the crop had a narrow genetic base of potato. Ireland had to recur to certain varieties of potato (resistant to the blight) coming from the Andes and Mexico to recover from the food crisis.

All those historical examples make clear how is fundamental biodiversity in agriculture; agricultural sustainability in each country depends on the genetic diversity in global agriculture as a whole.

"Only in the twentieth century, for many of the major crops, more than 90% of the varieties existent at the beginning of the century has been lost."

However, despite all these warnings, we are still doing very little to protect agricultural biodiversity. During the last century, the genetic erosion was clear: more than 90% of the varieties existent at the beginning of the 20th century has been lost; currently, no more than 120 species provide 90% of human plant food (in the past about ten thousand of species were used); 12 plant species and 5 animal species alone provide more than 70% of all human food. Of these, only 4 species of plants (potatoes, rice, corn and wheat) and 3 animal species (cattle, pigs and chickens) provide more than half of all human food.

It is the time to reverse the trend. How can we do it? We need international agreements which put farmers and local markets at the center of agricultural policies; industrial agriculture should be limited only in the cases it is really necessary.

Table 1 – U.S. Fruit and vegetable varieties lost, period 1903 - 1983

Vegetable		Total 1903 varieties	1903 Varieties in U.S. NSSL Collection	Varieties lost (%)
Watermelon	Citrullus lanatus	223	20	91.0
Peanut	Arachis hypogaea	31	2	93.5
asparagus	Asparagus officinalis	46	1	97.8
beets	Beta Vulgaris	288	17	94.1
artichoke	Cynara scolymus	34	2	94.1
carrot	Daucus carota	287	21	92.7
cabbage	Brassica oleracea var. capitata	544	28	94.9
onion	Allium cepa	357	21	94.1
bean	Paseolus vulgaris	578	32	94.5
sunflowers	Helianthus annuus	14	1	92.9
lettuce	Lactuca sativa	497	36	92.8
eggplant	Solanum melongea	97	9	90.7
melon	Cucumis melo	338	27	92.0
pea	Pisum sativum	408	25	93.9
tomato	Lycopersicon esculentum	408	79	80.6
parsley	Petroselinum crispum	82	12	85.4
turnip	Brassica rapa	237	24	89.9
arugula	Eruca sativa	1	0	100.0
celery	Apium graveolens var. dulce	164	3	98.2
spinach	Spinacia oleracea	109	7	93.6

Source: LTEconomy, elaboration on C. Fowler, P. Mooney (1990)

Box 3 - What is Biodiversity?

Biodiversity is something like “abundance” in nature. The more the number and diversity of species in nature, the higher is the potential for some species to survive to catastrophic events.

The term "biological diversity" was first used in 1968 by the scientist and environmentalist *Raymond F. Dasmann* in his book "A Different Kind of Country", while the term "Biodiversity" was coined in 1980 by *T. Lovejoy*. *E.O. Wilson*, at the *National Forum on Biodiversity*, held in Washington in 1986, first defined "biodiversity" as "The variety of life at every hierarchical level and spatial scale of biological organizations: genes within populations, populations within species, species within communities, communities within landscapes, landscapes within biomes, and biomes within the biosphere." During the *United Nations Conference on Environment and Development*, held in Rio de Janeiro in 1992, Biological diversity was defined as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems." (<https://www.cbd.int/doc/legal/cbd-en.pdf>)

Intraspecific (or genetic) biodiversity refers to the genetic variability within a single species and, therefore, the degree of difference between the genomes of different individuals (e.g., color differences in the petals of the iris).

Interspecific (or taxonomic) biodiversity refers to the number and types of different species living in a given region, ecosystem, or more generally in the entire biosphere.

The *biodiversity of ecosystems* includes all those biological communities that interact with each other and with

their physical environment (e.g., lakes, rivers, meadows, woods, etc...). Indeed, each component of the ecosystem, such as temperature, humidity, wind, latitude, salinity, influence the composition of the biological community living in that area (Lucio Pesce, 2008).

According to a recent study by, *Census of Marine Life* (published in 2011 in the specialized magazine, *Plos Biology*) the natural world contains about 8.7 million species; this estimate is described by scientists as the most accurate ever. But the vast majority of these species have not been identified - and cataloguing them all could take more than 1,000 years. The team of researchers warned that many species will become extinct before they can be studied.

Animals: 7.77 million (12% described)

Fungi: 0.61 million (7% described)

Plants: 0.30 million (70% described)

Protozoa: 0.04 million (22% described)

Chromists: 0.03 million (50% described)

<http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.1001127>

4. The consequences on farmers: the genocide of farming communities in India

Together with biodiversity and agricultural traditions, also farmers have been negatively affected by the UPOV's Plant Variety Protection system. Traditional and native seeds are almost completely excluded from the market and the practice of seeds sharing is becoming ever more difficult. According to the majority of farmers in the world, lab-seeds are totally non-natural and cannot survive in a long term perspective: plants can effectively evolve only when they are grown in a natural and bio-diverse environment.

However, based on the current legal framework, farmers can follow one of the following alternatives:

- 1) *remaining small and using the seeds sold by multinationals*. This alternative cause an increase in the cost of productions (royalty costs, costs for the purchasing of fertilizers, chemicals and machineries). This alternative does reduce economic margins for farmers and is often economically unsustainable;
- 2) *scaling up the size of their farm*. This solution could make it possible to amortize the costs cited in point 1 thanks to a bigger scale of production; however it is not always possible (because it requires investment) and would make farmers more dependent on chemical and machinery industry;
- 3) *selling the land and moving away from their native places*. When the activity of farmers is not economically profitable (because of the cited costs and the competition from low-cost products coming from abroad), farmers are forced to sell their land; unemployment and poverty increases;

4) *growing native seeds*. This solution is difficult to bring out in the current legal framework, because these kind of seeds are excluded from the market.

Small farmers are not naturally inefficient. Actually, they are more productive and efficient on average than big agricultural companies (if we take into account the yield per land used, rather than the yield per unit of labor used). Moreover, it has been estimated that industrial agriculture uses 70-80% of fertile land in the world, 80% of fossil fuels used in agriculture and 70% of water to meet only 30-40% of the global demand of food. Its impact on the environment is considerable: it accounts for 44-57% of the annual greenhouse emissions and contribute to 13 million hectares of deforestation per year. Farmers and small agricultural firms, instead, use only 30% of fertile land in the world, 20% of the fossil fuels used in agriculture, 30% of water, but meet 70% of the global demand of food (ETC Group, 2013b). The current problems for small farmers are not caused by their size but by the unfair rules of the game controlled by mega-agribusiness corporations.

“...In academic, scientists have found a result known as “*the productivity paradox*”: they have observed that small farms are much more productive (in terms of what they produce from the same amount of land) than big corporate farms. The reason is simple. It is clear that a family with a little land at disposal, will use it in the best efficient way and without leaving any room unused; they produce a diversity of food and, at the same time, preserve the landscape, the fertility and productivity of their land. On the other hand, big corporations are only interested in the return on their investment. In order to achieve that goal, they try to keep the cost of production at minimum levels (so paying less wages to labors) and export almost the totality of the food they produce.”

Henk Hobbelink, *GRAIN*, co-founder and coordinator,
interview with LTEconomy, (May 2014, www.lteconomy.it/en)

“The European Union (EU) has enacted a seed law that favor industrial agriculture; indeed, according to this law, EU funds for agriculture can be delivered exclusively to farms that use seed varieties registered in *national seed lists*. Such seeds do not belong to biodiversity; they belong to corporations, private seed companies or universities! Accordingly, using local seeds does mean losing European funds. Moreover, the purchase price of registered seeds includes the payment of royalties used to fund research centers. Finally, even a ban has been placed on the use of local varieties. The final results are: 1) seed varieties not recognized in national registers are disappearing; 2) the “millennial” practice of seed sharing between farmers is now “illegal.” Now, only seeds coming from “lab-genetic improvements” can be sold; plants coming from such seeds need to be “pumped” with chemical fertilizers and defended from the “weeds” (*read nature*) through the use of *phyto-sanitary* products (*read poisons*).”

Giuseppe Li Rosi, Sicilian farmer, owner of *Terre Frumentarie*
interview with LTEconomy, (May 2014, www.lteconomy.it/en)

India is one of the countries where the peasantry has suffered more from the process of globalization and industrialization in agriculture. 2/3 of the Indian population (almost 700 million people) are engaged in agricultural activities (Vandana Shiva, 2007). Indian agriculture has been historically characterized by a good relationship between land biodiversity and traditional

agricultural practices; however, with the entry of big multinationals there has been recorded a collapse in the peasantry. According to *Vandana Shiva* (2005), the move from an agricultural model based on the practices of saving and sharing seeds to an industrial and monopolized model has been almost compulsory: “farmers have been (and are) forced to use industrial seeds” because this is what Indian agricultural laws want (in accordance to the WTO and TRIPS agreements). The industrial agricultural model, based prevalently in the selling of hybrid seeds (seeds that are not reproducible by farmers) is economically unsustainable (the costs of production are higher); moreover, it increases the risks that some portions of the crops get lost (due to genetically uniform seeds). The Indian peasantry hasn’t had a positive reaction to this process; the number of suicides among Indian farmers has increased: between 1997 and 2007 30 thousand suicides of Indian farmers were recorded. (Vandana Shiva, 2007)

5. The consequences on farmers: the uprisings in South America and the reaction in the rest of the world

The extension of the UPOV Convention to developing countries, due to the rules of the WTO and the TRIPS agreement, has caused severe protests by farmers, especially in Latin America. These riots, which are taking place both in the streets and in the courts, have in some ways stopped the restless advance of the UPOV and multinationals in these countries.⁴

In **Chile**, after the passage on first reading, in 2010, of the UPOV Convention, civil society organizations continued to raise public awareness of the dangerous aspects of the act. The mobilization involved high-profile marches, Internet-based information campaigns, radio programs, TV interviews, information sessions in rural communities and universities. The impact of all this mobilization was to break the silence on the issue in Chile and to convince a majority of senators (21 of 38) to vote against the bill. Faced with this new situation, the government withdrew the bill, intending to postpone voting until after the November 2013 elections, when a number of its senatorial opponents will have retired.

The bill to amend the Seeds Act in **Argentina** is the fruit of active lobbying by Monsanto beginning in 2003. In 2012, the Minister of Agriculture Norberto Yahuar announced an amendment to the Seeds Act to protect investors. Civil society organizations reacted immediately. The National Indigenous Peasant Movement, Friends of the Earth, and GRAIN started a petition campaign which, by late November, had garnered the support of more than 500 civil society organizations and 3,500 individuals. In the early 2013, the Minister of Agriculture announced that the bill would not have been sent to Congress in an election year. However, he soon announced that the bill would be submitted to Congress right after the elections. Argentine civil society continues to monitor these developments closely and to act accordingly.

In **Colombia**, in April 2012, the Colombian Congress passed Bill 1,518, adopting the International Convention for the Protection of New Plant Varieties, thus complying with its obligation to protect the interests of agribusiness corporations under the *Free Trade Agreement* (FTA) with the United States. A number of organizations appealed to the Constitutional Court and, in December 2012, obtained a decision declaring Law 1,518 unenforceable. They argued that the government had

⁴ For more details on farmers’ riots in Latin America, please see GRAIN: <http://www.grain.org/article/entries/4808-seed-laws-in-latin-america-the-offensive-continues-so-does-popular-resistance>

failed to consult the indigenous and tribal peoples in regard to legislative or administrative measures affecting them directly, as required by the Article 6 of Convention 169 of the International Labour Organization (ILO). This decision caused consternation and a legal reaction by the United States, which considered these laws essential for the respect of the FTA. There is an interesting documentary on Colombian peasantry's upheaval: "9.70: la historia de la semilla privatizada," by the young director Victoria Solano.

In **Venezuela**, a bill to amend the Seeds Act is making its way through the legislative process and causing great concern among civil society organizations. The situation there is complex because the initiative inaugurates an intellectual property regime even as it takes the salutary step of banning GMOs. The GMO-free Venezuela campaign has been monitoring this bill and has called for "a ban on transgenic seeds in the country, a ban on any types of intellectual property rights or patents over seeds, and an expanded debate over the bill with a view to building an appropriate legislative framework in conjunction with the revolutionary popular collectives and movements."

In **Mexico**, with the entry into force of NAFTA, a sequence of laws were passed – first the Plant Varieties Act (1996), followed by the Biosafety Act (2005) and the Seeds Act (2007) –, whereby the Mexican legal system took a big step towards seed registration, certification, patenting, and privatization. It is a clear attempt to force farmers to use lab-created seeds and to criminalize the saving and exchange of native seeds. In 2012, a vast coalition of peasant and civil society organizations succeeded in halting the UPOV 91 amendments to the Plant Varieties Act.

In the rest of **Latin America and the Caribbean**, the situation varies depending on whether or not a Free Trade Act (FTA) has been signed with the United States. This is the case for Costa Rica, the Dominican Republic and Peru. As for the rest of the continent, while there are no active attempts to push through UPOV 91, the industry influence over government is growing.

Africa is the least affected area by seed laws, but a trend in that direction is beginning and the life of small farmers could worsen in the future.

In **Eastern Europe**, many countries are trying to harmonize their rules on seeds with those adopted in the European Unions; this "legal integration" is occurring between protests due to the potential dangers it can have on traditional crops .

In **Western Europe**, there are two kind of thought: those who want to *support the biotech industry* (and, with it, GMOs and intellectual protection on plants); on the other hand, those who want to *create a legal space for local and traditional varieties*. Europe has been the continent most affected by the application of seed laws; however, a new consciousness is emerging in the European countries, and many movements are acting in order to protect local varieties and biodiversity.

In **Indonesia**, the agricultural activities are regulated by the "Plant Cultivation System Law", adopted in 1992. Between 2005 and 2010 , more than a dozen farmers in Kediri and Nganjuk in Indonesia have been accused of robbing the seeds from large seed companies. The Constitutional Court of Indonesia called several articles of the law "unconstitutional" on the basis of which the farmers had been punished. That was considered a great victory for all Indonesian farmers .

Annex: the main international organizations that support local farmers

There are many organizations around the world aimed at supporting the struggle of local farmers against the growing agribusiness lobbies. All these organizations argue that protecting local farmers is a key factor in preserving biodiversity around the world. Among their main objective there are those of: declaring the seed “*a common good that belong to all humanity*”, and protect the right of farmers to select, produce and freely share their seeds.

Among the major organizations working in this field, there are:

Navdanya. Navdanya is a project of research founded in India in 1987 by the scientist and environmentalist *Vandana Shiva*. This project aims at establishing a new agricultural model, based on ecology, environmental sustainability, biodiversity, the protection for small farmers and the wise integration between scientific and traditional knowledge. These goals are first of all pursued through the creation and development of a complex system of “seed banks” based on native and ancient seeds. The project currently involves about *30 thousand farmers (500,000 people* if we consider all the activities of training and seed drawing). *Navdanya* has its own seed bank in a 45 hectares land in *Uttrakhand*, in the North of India; it has by now saved 5,000 plant varieties: 3,000 of rice varieties, 150 of grain, 150 of beans, 15 of millet and many other varieties of vegetables. It has supported the creation of other 111 seed banks in 17 states in India. In Italy, in Florence, there is the office of *Navdanya International* chaired by *Vandana Shiva*. *Navdanya International* is carrying out the mission of the Indian head office at an international level.

ETC Group. ETC Group is an international civil society organization (founded in 1970 by Pat Mooney, Hope Shand, and Cary Fowler) which works to address the socioeconomic and ecological issues surrounding new technologies that could have an impact on the world’s poorest and most vulnerable people. ETC Group investigates *ecological erosion* (including the erosion of cultures and human rights), the development of new technologies and monitor *global governance issues*, including corporate concentration and trade in technologies. It operates at the global political level and works closely with partner civil society organizations and social movements, especially in Africa, Asia and Latin America.

GRAIN. *GRAIN* is an international non-profit organization that works to support small farmers and social movements in their struggles for community controlled and biodiversity-based food systems. *GRAIN*’s support takes the form of independent research and analysis, networking at the local, regional and international levels, and active cooperation and alliance-building with social movements. Its story started in the early 1980s, when there was a growing concern on the loss of biodiversity. *Henk Hobbelink* and other researchers began studying this phenomenon and in 1990 founded *GRAIN (Genetic Resources Action International)*, with the head office in Barcelona (Spain). For more than 20 years, *GRAIN* has been an active player in the global movement to challenge corporate power over people’s food and livelihoods. One of the themes *GRAIN* is most famous for is Land Grabbing (that is the grab of fertile lands in poor countries by the big corporations of developed and emerging countries).

6. Conclusions

“*Agricultural Biodiversity*” is the term used to indicate the richness of the agricultural system, both in terms of plant species and varieties (inside the species). Now, more than ever, biodiversity is a key factor to ensure the food needed to feed the growing global population: historical and scientific evidence does prove that a larger genetic diversity in agriculture can better face the problems caused by *climate change* and the emergence of *new plant diseases and parasites*.

However, during the 20th century we have observed a gradual and substantial *loss of agricultural biodiversity*; the establishment of industrial agriculture that prioritizes the adoption of genetically uniform crops and the enhancement of the UPOV Convention (as well as its extension to developing countries due to the rules of the WTO and TRIPS) have played a crucial role in the genesis and the establishment of such a process. In fact, the international rules on seed marketability (based on the UPOV Convention) tend to exclude native and ancient varieties from the market, and strongly limit the possibility for farmers to save and share seeds. The risk of a further “genetic flattening” in agriculture is real and remarkable.

Why have the UPOV Convention and the Intellectual Property Protection on plants (Plant Variety Protection) been strengthened over time? Who is supporting them? The answer is the following: they are the *agribusiness multinationals* which are backing such a system; in this way, they have gradually monopolized both the market of seeds and linked markets (such as those of fertilizers and pesticides). The gradual and substantial increase of the economic power of these mega-corporations have been shown by the several reports released by ETC Group.

Therefore, on one side there are agribusiness multinationals which have increased their commercial power; on the other side, there are *small farmers* whose economic and social conditions have strongly worsen due to the establishment of the industrial agricultural methods: in most of the countries in the world, they are now substantially forced to buy corporation’s hybrid seeds, with a consequent increase in the costs of production. Peasants’ reactions have been different around the world: from the Indian genocide to the riots in Latin America.

However, over the last decades, we have also observed the emergence of some laudable organizations which work at support of this important social class (i.g., *Navdanya* in India, *ETC Group* in Canada and *GRAIN* in Spain). The struggle for conserving agricultural biodiversity, however, requires the participation of all citizens and populations around the world; local products should be prioritized in our choices of buying and we should support any initiatives for giving farmers *the possibility to save and share their own seeds*, as it has been done for centuries in the agricultural history.

The seed is a common good and cannot become an object of monopolization and a means for making profits!

BIBLIOGRAPHY

Dasmann, R. F. (1968), *A Different Kind of Country*. MacMillan Company, New York.

Etc Group, (2013a), *Putting the Cartel before the Horse...and Farm, Seeds, Soil and Peasants etc: Who Will Control the Agricultural Inputs?*.

<http://www.etcgroup.org/sites/www.etcgroup.org/files/CartelBeforeHorse11Sep2013.pdf>

Etc Group, (2013b), *Poster: Who Will Feed Us? The Industrial Food Chain or the Peasant Food Webs?*,

<http://www.etcgroup.org/content/poster-who-will-feed-us-industrial-food-chain-or-peasant-food-webs>

Etc Group, (2013c), Brazilian Commission to "Terminate" Seeds This Week,

http://www.etcgroup.org/sites/www.etcgroup.org/files/NR_BrazilianCommissiontoTerminateSeeds_131210.pdf

Etc Group, (2009), *Who will feed us?*

http://www.etcgroup.org/sites/www.etcgroup.org/files/ETC_Who_Will_Feed_Us.pdf.

Fowler Cary, Mooney Patt, (1990), *Shattering. Food, politics, and the loss of genetic diversity*, The University Arizona Press, Tucson.

Gatto Marino e Casagrandi Renato, (2003), *Dispense del corso di Ecologia*.

<http://olmo.elet.polimi.it/ecologia/dispensa/node63.html>

Grain, (2013), *Seed laws in Latin America: the offensive continues, so does popular resistance*.

<http://www.grain.org/article/entries/4808-seed-laws-in-latin-america-the-offensive-continues-so-does-popular-resistance>.

Grain, (2011), *Food and climate change: the forgotten link*,

<http://www.grain.org/article/entries/4357-food-and-climate-change-the-forgotten-link>.

Grain, (2010), *Global agribusiness: two decades of plunder*.

<http://www.grain.org/article/entries/4055-global-agribusiness-two-decades-of-plunder>

Grain, (2007), *The end of farm-saved seed? Industry's wish list for the next revision of UPOV*.

<http://www.grain.org/article/entries/58-the-end-of-farm-saved-seed-industry-s-wish-list-for-the-next-revision-of-upov>

Harlan, J.R., (1961), *Geographic, origin of plants useful to agriculture*, Germplasm Resources. American Association for the Advancement of Science, Washington DC, USA.

Harlan, J.R., (1970), *Evolution of cultivated plants*, Genetic resources in plants - Their exploration and conservation, Aldine, Chicago, USA.

Harlan, J.R., (1972), *Genetics of disaster*, Journal of Environmental Quality.

Harlan, J.R., (1975), *Crops and Man*, American Society of Agronomy, Madison, Wisconsin. La Via Campesina, 2013, *The global struggle for peasants seeds : a struggle for our future*,

<http://viacampesina.org/en/index.php/main-issues-mainmenu-27/biodiversity-and-genetic-resources-mainmenu-37/1522-the-global-struggle-for-peasants-seeds-a-struggle-for-our-future>.

La Via Campesina, (2013) , *Our Seeds, Our Future*, <http://viacampesina.org/downloads/pdf/en/EN-notebook6.pdf>

Lovejoy Thomas, (1988) *Conservation Biology*, Sinauer Associates. Sunderland, Massachusetts

- LTEconomy, (May 2014), *Seed rights*, Interview with *Pat Mooney*, (ETC Group, founder) ([Link](#)).
- LTEconomy, (May 2014), *Seed rights*, Interview with *Giuseppe Li Rosi*, (Sicilian Farmer, Terre Frumentarie) ([Link](#)).
- LTEconomy, (April 2014), *Seed rights* Interview with *Ramòn Vera Herrera*, (General Director of the magazine "Biodiversidad") ([Link](#)).
- LTEconomy, (April 2014), *Land Grabbing*, Interview with *Henk Hobbelink*, (GRAIN, founder) ([Link](#)).
- LTEconomy, (February 2014), "Focus - Why growth cannot last indefinitely", ([Link](#)).
- LTEconomy, (December 2013), *Degrowth*, Interview with *Erik Assadourian*, (Research-Director at the Worldwatch Institute) ([Link](#)).
- LTEconomy, (June 2013), "Focus - All about food losses ", ([Link](#)).
- LTEconomy, (May 2013), *Permaculture*, Interview with *David Holmgren* (Permaculture, co-founder; Holmgren Design Services, President), ([Link](#)).
- LTEconomy, (February 2013), "Focus: all about the Ecological Footprint", ([Link](#)).
- LTEconomy, (February 2013), *Ecological Footprint*, Interview with *Mathis Wackernagel*, (Global Footprint Network, President), ([Link](#)).
- Mora Camilo, Tittensor Derek P., Adl Sina, Simpson Alastair G. B., Worm Boris, (2011), *How Many Species Are There on Earth and in the Ocean?*, Plos Biology 9.
<http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.1001127>
- Navdanya International, (2009), *La legge del seme*,
<http://www.navdanyainternational.it/attachments/article/245/SEME.pdf>
- Pesce Lucio, (2008), *La Biodiversità*, <http://www.luciopesce.net/zoologia/crisi.html>
- Pnas, (2013), *Increasing homogeneity in global food supplies and the implications for food security*,
<http://www.pnas.org/content/early/2014/02/26/1313490111.full.pdf+html>.
- Scoppola Margherita, (2000), *Le multinazionali agroalimentari*, Carocci Editore.
- Seed Sovereignty - *Sowing the Future - Harvesting Diversity*, http://www.saatg.utkampagne.org/PDF/Sowing_the_Future_call_EN_web.pdf
- Shiva Vandana, (2012), *Story of Seeds*. (Trad. It. *Storia dei semi*, a cura di Gianni Pannofino, Giangiacomo Feltrinelli Editore Milano).
- Shiva Vandana, (2009), *Campi di battaglia. Biodiversità e agricoltura industriale*, Edizioni Ambiente.
- Shiva Vandana, (2007), *Dalla parte degli ultimi*, Slow Food Editore.
- Shiva Vandana, Pandey Poonam, (2006), *A New Paradigm for Food Security and Food Safety*, Navdanya, New Delhi,
- Shiva Vandana, (2005), *Earth Democracy*. (Trad. It. *Il bene comune della Terra*, a cura di Roberta Scafì, Giangiacomo Feltrinelli Editore Milano).
- United Nations, (1992), *Convention on Biological Diversity*.

<https://www.cbd.int/doc/legal/cbd-en.pdf>

Valivov Nikolai I., (1926), *Studies on the Origin of Cultivated Plants*. Institut de botanique appliquée, Leningrad.

Vavilov Nikolai I., (1935), *Theoretical principles of the selection of the plants*. Moscow – Leningrad.

Vavilov Nikolai I.. *Studies on the Origin of Cultivated Plants*. Institut de botanique appliquée, Leningrad, 1926

Wilson E. O., (1988), *Biodiversity*, National Academies Press.

Wilson E. O., (1992), *The Diversity of Life*, Harvard University Press.

LINKS

Biodiversidad - <http://www.biodiversidadla.org>

Convention on Biological Diversity - <https://www.cbd.int/doc/legal/cbd-en.pdf>

ETC Group - www.etcgroup.org

Grain - www.grain.org

La Via Campesina - <http://viacampesina.org/en/index.php>

Navdanya - <http://www.navdanya.org>

Navdanya International - www.navdanyainternational.it

Nagoya's Protocol - <http://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>

Pnas - www.pnas.org

Seed Sovereignty - <http://www.seed-sovereignty.org>

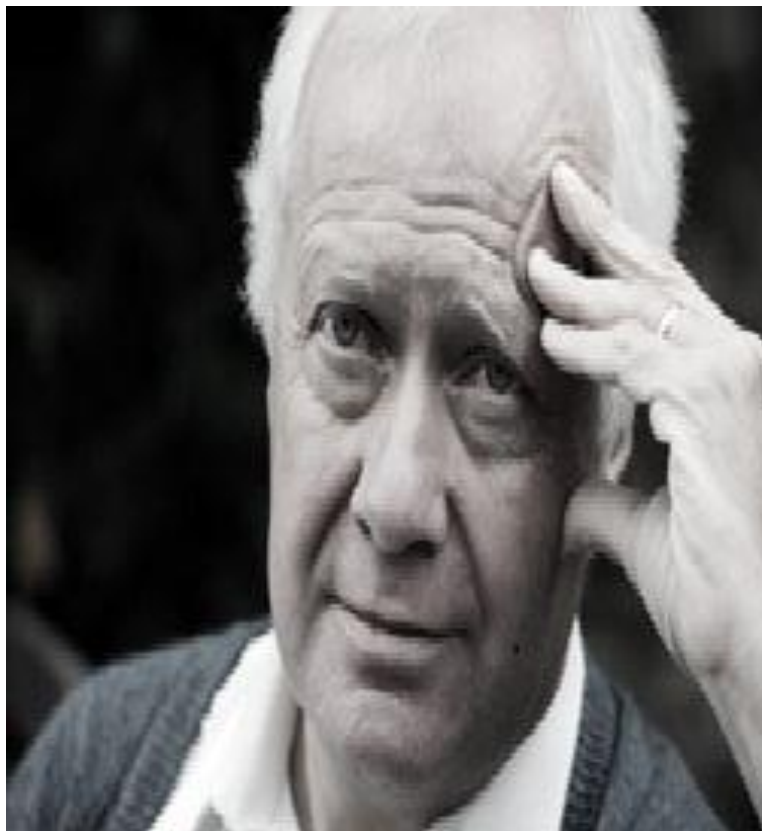
Terre Frumentarie - www.terrefrumentarie.it

Terre e Tradizioni - www.terretradizioni.it

UPOV Convention - <http://www.upov.int/upovlex/en/conventions/1991/content.html>



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Interview with Pat Roy Mooney*(ETC Group, cofounder and executive director)*<http://www.etcgroup.org/>

Premise: Since the second half of the nineteenth century, the world has been hit by a dangerous loss of “agricultural biodiversity”, both in terms of species (inter-species biodiversity) and existing varieties within the same species (intra-species biodiversity). One of the main driving factors of such a dangerous phenomenon is the increasing diffusion of industrial practices in agriculture. In fact, the use of a limited number of uniformed agricultural plant species, in defense of an industrialized and centralized high yield agricultural model, has led to a fatal genetic flattening in the seeds. However, several studies show that this process can’t ensure the genetic diversity the agricultural system need in order to address the following future challenges: *climate change, population increase, resistance to new diseases and insects*. Why is *biodiversity* so important for our planet? Why *the role of seeds* (and so the debate on them) is so crucial for our future? And why *the current international regulatory framework* on the market of seed is dangerous for biodiversity and the survival of small farmers? *Are big corporations really better than small farmers?* **Pat Roy Mooney**, ETC Group’s executive director and one of the greatest experts of agricultural biodiversity, answered to those and other questions.

Pat Roy Mooney: Pat Mooney has more than a four decades experience working in international civil societies, first addressing aid and development issues and then focusing on food, agriculture and commodity trade. In 1977, together with *Cary Fowler* and *Hope Shand*, Mooney co-founded the "RAFI" (*Rural Advancement Fund International*, renamed *ETC Group* in 2001). He received "The Right Livelihood Award" (the "Alternative Nobel Prize") in the Swedish Parliament in 1985 and "The Pearson Peace Prize" from Canada's Governor General in 1998. He has also received the American "Giraffe Award", given to people "who stick their necks out." Pat Mooney is the author or co-author of several books on biotechnology and biodiversity; One of his most important publications is "Shattering: Food, Politics, and the Loss of Genetic Diversity". He is widely regarded as an authority on the following issues: global governance, corporate concentration, intellectual property monopoly, plant genetic resources and agricultural biodiversity.

ETC Group: the ETC Group is a small international civil society organization which works to address the socioeconomic and ecological issues surrounding *new technologies that could have an impact on the world's poorest and most vulnerable people*. ETC Group investigates ecological erosion (including the erosion of cultures and human rights), the development of new technologies and monitor global governance issues, including corporate concentration and trade in technologies. It operates at the global political level and works closely with partner civil society organizations and social movements, especially in Africa, Asia and Latin America.

Question 1: You are one of the co-founders of the "ETC Group". Can you explain *what is ETC Group's mission*, what are *the topics* it is currently more focusing on, and, finally, *in which way it carries out its mission*?

Answer:

Our experience started back in 1977, with the establishment of the *Rural Advancement Foundation International (RAFI)*, then renamed *ETC Group* in 2001. Initially, our organization focused only on the *thematic of seeds* and on the impact of changes in agro-biodiversity on marginalized peoples, both producers and consumers. More than 30 years later, the ETC Group is still talking about seeds, but the world has changed and, with it, our subjects: new technologies have developed, economies have globalized, multinational companies have expanded their reach, wealth and capital are concentrated in the hands of fewer and fewer giant corporations. In particular, we are giving increasingly attention to the development of *new technologies* and their impact on the most vulnerable peoples. These new technologies include *nanotechnology and synthetic biology* (a kind of extreme genetic engineering that can have a serious negative impact on the planet system both in terms of biodiversity and climate change). We substantially carry out our mission in two ways: 1) by producing *information* (articles and reports) on the subjects we focus on; 2) by *collaborating with local civil societies* in their fight to protect small farmers and marginalized peoples' rights.

Question 2: Now, we are going to talk about "biodiversity" and the role of "seeds" in the agricultural system. First of all, let me start with one of your most important publications: "Shattering: Food, Politics, and the Loss of Genetic Diversity". It is widely regarded as one of the most comprehensive guides on the topic of biodiversity. Could you explain *what is biodiversity* and why it is so important for our planet to protect the *genetic diversity of plants*?

Answer:

Historical episodes and increasing evidences suggest that humanity cannot survive from big global changes (climate, new plant diseases, land erosion and so on) unless we have access to a wide diversity (both in terms of species and varieties) of livestock and plants. In that sense, the most terrifying figure is that *45% of all the private agricultural research is focused on just one-crop - maize*; and that means less access to diversity. Said that, we have a lot of historical examples that prove how dangerous are genetically-narrowed crops. Coming back in *Ireland in the 1840-1850s*, the entire crop of potato was destroyed by a single disease; 1 million Irish died and 2 million more fled the country; that happened because the crop had a narrow genetic base of potato. There are many other examples: the coffee-based economy in *Sri Lanka* was practically destroyed by a leaf disease that spread throughout the plantations from the mid 1850's to 1870; *in the U.S. in 1970*, the *Southern corn leaf blight (SCLB)* reached epidemic status and destroyed about 15% of the corn belt's crop production. These examples simply show how vulnerable is an agricultural system poor in biodiversity.

Question 3: Said that. What is, in your opinion, the *state of biodiversity around the world*? What are the countries which are registering the major loss of biodiversity and why?

Answer:

Well, the widest loss of biodiversity has taken place in *Europe* and in *North America*, simply because those are the zones which have experienced the major diffusion of industrial agricultural practices. However, in my opinion, the biggest threat to biodiversity comes from Central America, Ethiopia and South-East Asia. These countries are strongly threaten by the diffusion of industrial agricultural practices and Genetically Modified Crops (GMC). It is, in particular, the case of South East Asia, where GM Rice is about to be introduced commercially; but also Mexico is under the threat of Genetically Modified maize (GMO).

Question 4: What about *Land Grabbing*? Is it contributing to the loss of biodiversity?

Answer:

I think it will, but is not the main cause! Of course, the Land Grabbing phenomenon (that happens when lands in poor countries are acquired by rich countries or big corporations, often without consulting local peoples) has risen in the past few years; so it and its consequences on local communities must be closely monitored. However, in my opinion, the biggest threat to biodiversity is not Land Grabbing itself, but the intellectual property policies which encourage the diffusion of commercial agricultural varieties and GMOs, included the so called Terminator* crops.

* Terminator technology refers to plants that have been genetically modified to render sterile seeds at harvest - it is also called Genetic Use Restriction Technology or GURTS.

Question 5: Let's go on with Biodiversity. What is "[The Convention on Biological Diversity \(CBD\)](#)" and how does it function?

Answer:

Signed by 150 government leaders at the 1992 Rio Earth Summit, the *Convention on Biological Diversity* (CBD) entered into force on 29 December 1993. It has three main objectives: 1) the conservation of biological diversity; 2) the sustainable use of the components of biological diversity; 3) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Actually, we initially opposed it, it was hastily constructed and fostered the idea of intellectual property over genetic diversity, favoring big companies and rich countries at the expense of developing countries and peasant farmers. However, over the time, there has been an improvement in the ways the *Convention* protects biodiversity: steps have been done in terms of drawing attention on the thematic of biodiversity and on the dangerous role that the use of biotechnologies and GMOs have in agriculture.

Question 6: Now, let's talk about the "seed market". How has the seed market changed over the past decades?

Answer:

The seed market has experienced a big process of concentration over the past forty years. Back in the 1970s, no single company had even 1% of the global commercial seed market and there were over 7 thousand different sources of seeds (public and private) around the world. Today, only 3 companies (Monsanto, Syngenta and DuPont) realize 54% of all global seed sales; one, Monsanto, owns 27% of the global market. Moreover, if you look at the top 6 companies (Monsanto, Syngenta, DuPont, BASF, Bayer, Dow), they not only control 60% of the seed market, but also 95% of the pesticide market. Why those companies have experienced such an increase in their market share? First of all they have a big influence on politics and governments. So, national and international laws (included the *UPOV* convention) strongly support them in their efforts in gaining control over the food system; in particular, the regulatory framework on the *intellectual property rights* over plant varieties favors the diffusion of technologies that, because of the big cost in research, can be developed only by big corporations.

Question 7: You have just mentioned the "UPOV", which represents the international regulatory framework on the production, sharing and commercialization of seeds. Can you explain *how does it work* and what are its *main implications* for big corporations, small farmers and the agricultural system as a whole?

Answer:

The *UPOV* (*Union internationale pour la Protection des Obtentions Végétales*) is an international convention signed by 71 countries for the protection of new plant varieties, by a system of "property rights". Since its birth in 1961, the *UPOV* has established the following goals: 1) increase *genetic diversity*; 2) give farmers *more opportunities*; 3) increase *plant breeding*; 4) bring in *new species* in the food system; 5) *end the world hunger*. Fifty years later, none of these goals have been achieved. It is true, since the 1960s, the commercial seed sector has produced 80 thousand unique varieties under the intellectual property protection; but "59% of these new varieties are flowers and other non-food plants." Actually, if you look at the food sector, not a single new species has been

introduced in all the period considered. On the other hand, in the same period, despite market difficulties, peasant farmers have produced “2.1 million plant varieties” and these varieties are in 7 thousand different species. They have added diversity to the food system. In conclusion, the *UPOV convention* is promoting a wrong system, a system based on the culture of *intellectual property rights*, *monopolization* of the food supply chain and the *marginalization* of the real source of diversity which is represented by peasant farmers.

Question 8: Many studies, media-Reports and documentaries suggests that, with the monopolization of the seed market by big corporations and the industrialization of agriculture, *the cost of production (seeds, fertilizers, pesticides, machineries) for small peasants is becoming unsustainable*, to the point that the number of suicides among small farmers has drastically increased in the past few years, especially in India. *Are the conditions for small farmers really worsening? Are the governments and policy makers seriously considering that phenomenon? What they should do?*

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Answer:

Without doubt, small farmers, over the past 40 years, have experienced a strong worsening in their economic conditions. There are many causes behind that: 1) *the monopolization* of the seed market and the food system (so the increased power of big corporations at the expense of small farmers); 2) *Land Grabbing* (so peasant local farmers lose access to their land); 3) *worsening market conditions*. Those events have affected almost equally all parts of the world; however, the reactions from small farmers are different and depend on the country's culture: in some countries, like India, many farmers have opted for the suicide; in other countries, peoples prefer to fight for the protection of their rights.

What are doing governments? I don't think governments are protecting the interests of small farmers. “What governments really want is to get people off the land”: many studies suggest that by 2050, at least 77% of the world population will be living in cities. So governments are acting in the opposite way. Is it the right strategy? I don't think so. As I said before, small farmers represent the only solution for the future challenges we are going to face and, for this reason, should be supported.

Question 9: In 2013 ETC Group published an interesting Report on the importance of preserving the practice of *free sharing of seeds* among farmers: “[Tunis 2013: If we rely on corporate seed, we lose food sovereignty](#)”. What is “*Food Sovereignty*” and why the use of corporate seeds means a loss in food sovereignty? Could a farmer use *non-patent seeds* for commercial or non-commercial purposes?

Answer:

“Food Sovereignty” is a moving definition. It has become wider and stronger since the international farmers organization “[Via Campesina](#)” first introduced it. “Food Sovereignty”, first of all, means putting food at the center of any policy on “planet sustainability”. It advocates for a stronger relationship between farmers and consumers, as well as farmers and land (and, more in general, natural resources); Although Via Campesina has done an amazing job in order to expand the concept around the world, it is sometimes still used in a distorted way by some international

organizations and politicians. Food Sovereignty is closely linked to the thematic of seeds, as, among the agricultural factors (seeds, land and water), seeds are the easiest factor to monopolize. The monopolization of the seed market means less Food Sovereignty.

In some countries a farmer is allowed “theoretically” to use *non-patent seeds*. For example, in Canada and many parts of Europe, farmers “can” use non-patent seeds, but, in reality, they don’t: in the markets only patent-seeds are sold and sometimes there are only Genetically Modified seeds.

Question 10: ETC Group is closely monitoring the state of the “2007 bill” in the Brazilian Congress aimed at ending Brazil’s ban on *Terminator seeds* (see [Suicide at the Carnival? Terminator is back in the Brazilian Congress](#)). Why stopping this Bill is so important for the global agricultural system?

Answer:

Well, back in 2006, there was [a big effort by big multinationals to overturn the moratorium of the United Nations on terminator seeds in place since 2000](#). Some organizations, including the ETC Group, struggled against that attempt. In that struggle, we were supported by the Brazilian government which, in 2007, introduced a legislation which banned the use of Terminator seeds in Brazil. Now, Brazil, in order to defend its international reputation, is trying to allow the use of Terminator seeds in its country. Our concern is that the bill (aiming at ending the ban) can pass in a time between July 2014 (when the world cup will be taking place) and October 2014 (during the Brazilian elections); so the meeting on the Biodiversity Convention expected to be held soon after in Korea would represent the occasion for Brazilian diplomats to change the terms of the U.N. Moratorium on Terminator seeds in order to make their bill respectful of it. In that perspective Brazil will open the doors to allow the use of Terminator seeds around the world. This is the real threat!

Question 11: In general, what is *the current state of GMOs* in the world? Why GMOs are so dangerous?

Answer:

There are 27-28 countries around the world which, under certain conditions, allow the use of GMOs. However GMOs, since their introduction about 20 years ago, haven’t had the success big companies hoped: they include only few kind of crops (substantially *maize*, *soybean* and *canola*) and haven’t expanded in many countries. One of the main reasons behind their flop is their enormous cost. The introduction of a GMO variety could cost about *136 million dollars* to a company, while the introduction of a conventional variety on average costs only *1 million dollars*.

GMOs are very dangerous for two main reasons: 1) They allow companies to *monopolize* the seed market; 2) it is a technology *badly constructed*: 20 years ago little startup companies, pressed by venture capitalists, introduced a very *immature technology* into the market without a real preparation. However, now the biggest threat to the agricultural system doesn’t come from GMOs themselves; it comes from technologies similar to GMOs, to which media don’t give enough

attention, but are as dangerous as GMOs for both consumers and the entire agricultural system as a whole.

Question 12: In September 2013, ETC Group published a study "[*Who Will Feed Us? The Industrial Food Chain or the Peasant Food Webs?*](#)", which demonstrated that the Industrial Food Chain uses 70% of the world's agricultural resources to produce just 30% of our global supplies, while the Peasant Food Web provides 70% of the global food supply, using only 30% of agricultural resources. So, *what is the real usefulness of the industrial food chain?* And what we really need to feed the growing population around the world and reduce the impact of the agricultural system on climate change?

Answer:

The industrial food chain is very expansive and causes a big waste of money: it has a retail food bill of roughly *8 trillion dollar per year*. Moreover, per every dollar we spend (buying and using food), we spend another 50 cents to mitigate the damages caused by using its food. It is not only a question of money: from "the field to the fork", about 50%* of the food produced is wasted; finally, it's making rich societies obese and sick! It is difficult to imagine a system worse than this one; it is simply a disaster! We need to re-gain control over our food system. We have to support peasant farmers which represents the only system able to feed the entire world and, in particular, poor and hungry peoples. Peasant farmers' ecological footprint is lower than the industrial system's one: As showed in the study cited above, *they produce more food with less resources*, they consume less water and energy and are more flexible.

*The standard estimate of wasted food ranges between 33% and 40% without taking into account food wasted because of overconsumption. If you accept that somewhere between 15% and 25% of food consumed in industrialized countries is wasted because it is over-consumed, then it is not hard to boost the total food loss from 40% to around 50%.

Question 15: Summing up, in the last decades the power of big agricultural corporations in the world has increased, and, with it, the monopolization and industrialization of many phases of the global food supply chain; at the same time, small farmers are losing power and this is a serious threat for preserving a sustainable agricultural system. What is, in your opinion, *the future scenario for the agricultural system*, and what are *the main factors and trends* this scenario depends on?

Answer:

In my opinion, there are substantially two scenarios:

- 1) The non-desirable scenario: this is the scenario favored by most governments and U.N. agencies. *It prioritizes the industrialized food system*. According to them, *food production* must be increased by 50% between now and 2050; *access to energy and water* must be increased by 70% in the same period; finally, *meat and dairy consumption* must be increased by 70% (and that would be catastrophic in terms of health, ecological footprint, and climate change). In my opinion, these targets are simply impossible to achieve, and any efforts to do it will worsen our world ecosystem.

- 2) The desirable scenario: it is the only chance we have in order to face the ecological crisis as well as reduce the world hunger. It means: *supporting peasant farmers and increasing their access to lands and diversify*; having a more decentralized system, where peasant farmers can sell directly their products to consumers. It is a system where energy needs and the use of chemicals and fertilizers are drastically reduced.

In conclusion, “we have two possible scenarios, but we have only one choice: the second one!”

Interview with Ramòn Vera Herrera

(GRAIN, Researcher; <http://www.grain.org/>;

Biodiversidad, http://www.biodiversidadla.org/Autores/Ramon_Vera_Herrera)



Ramòn Vera Herrera: *Ramòn* is the overall editor of *Biodiversidad*, a quarterly magazine edited and designed in México in collaboration with 10 Latin-American counterparts. He works actively with the rest of GRAIN's Latin America team in advancing GRAIN's programme in the region. In addition, he edits the Mexican monthly *Ojarasca*, translates international writers for the Mexican newspaper *La Jornada* and is actively involved in the struggles of indigenous peasants in his country.

GRAIN: *GRAIN* is a small international non-profit organisation that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems. It was founded in the 1990 by *Henk Hobbelink*.

Biodiversidad: *Biodiversidad* is a quarterly Latin American magazine published through a coordinated effort involving *GRAIN* (in Chile, Argentina and México), *REDES-AT* (Friends of the Earth Uruguay), *La Via Campesina Seeds Campaign* (worldwide), *Acción Ecológica* (in Ecuador), *Red de Coordinación en Biodiversidad* (in Costa Rica), *Acción por la Biodiversidad* (in Argentina), *CLOC Vía Campesina* (worldwide), *Sobrevivencia-AT* (in Paraguay), *Centro Ecológico* (in Brazil), *Grupo Semillas* (in Colombia) and *ETC Group* (in México). It deals with the defence of agricultural

biodiversity and the conditions of the peasant, indigenous and local communities in Latin America.

Question 1: You have been working with the international non-profit organization GRAIN since 2009. What are *GRAIN's main objectives*?

Answer:

GRAIN is devoted to promote the control of local communities over their own (traditional and contemporary) food systems through the custody and exchange of their own ancestral native peasant seeds, and thus in the backing up these local communities in their defence of their territories, their self-government and their food sovereignty. GRAIN is keen on producing information to make all these communities aware of what they face vis-à-vis the corporations, governments and international organisms. GRAIN also works at the grassroots level, with workshops and collaborations to forward the aforementioned objectives.

Question 2: You are also the overall editor of *Biodiversidad*. Could you explain what is the *mission* of this magazine and what are *its main current topics*?

Answer:

Biodiversidad is thought of as a tool to link reflections, testimonies, experiences, research, and general information of how corporations, governmental dependencies and international organisms deeply affect with their actions the life and conditions of many different communities that struggle for their subsistence –that is, their livelihoods and food sovereignty –, while taking good care of the material, natural world with which they deeply interact all the time. This taking care is so important, and is so embedded in the material culture of peoples and their communities that is vastly disregarded or directly despised by policy-makers and corporative actors. *Biodiversidad* wants to address this universe of interactions between communities, their environment (their territories), and the corporations, governments and international organisms, so to reinforce them in the different struggles they get involved in their resistance to corporation control. *Biodiversidad* is *distributed in hand*, because it is seen not as a detached magazine but as a direct linking tool among communities, regions, struggles, and movements. Thus, it is widely read in the peasant world, either indigenous or non-indigenous.

Question 3: Now we are going to talk about “*seeds*”. Multinationals are strongly pushing towards *the privatization of seeds* in order to monopolize this market. Is this a bad thing? Why?

Answer:

This is obviously a very terrible thing! Seeds shouldn't be taken out of context. Of course, there is no one who oppose their selling, but it is important that seeds are the ever-changing result of thousands of years of careful handling and collective management. Seeds directly reflect relations. They are the knots of many diverse paths, they are crossroads of many people who care about them as being the most ancient key to new life –the concentrated potential of mutual nourishing,

livelihood, food sovereignty, and material independence. That is why so many peoples consider them “*sacred*”.

The privatization of seeds is a direct attack on the traditional and contemporary possibility of independent food systems. It is a direct erosion of the possibility of biodiversity because any privatization, any private control imposed on seeds custody and exchange disrupts the infinite transformation of seeds that is present in peasant traditional agriculture. Any patent, any kind of intellectual property right is an effort to stop the transformation of any variety, something that is impossible, and an effort to exert control of this transformation. Genetically Modified (GM) seeds are one of the ultimate control efforts (a genetic fetter with a bar code attached) to erode independent food systems and finally wipe them out.

This attack is so deep and so vast that the entire peasant world gets hit. The whole life of the communities is damaged, because it is a very fundamental attack on subsistence, on the possibility the communities have of achieving food sovereignty by their own means.

Question 4: Why *biodiversity* is so important for us?

Answer:

Biodiversity is one of the fundamental strengths of life. And it is mutually reinforced with cultural diversity. Many biologists and anthropologists coincide in their way of picturing material life as the joint result of biological and social factors, and, talking in general, we can say that biodiversity is always possible due to the cultures that foment it, and vice versa. Cultural diversity is reinforced by the degree of biodiversity they foster.

Question 5: Now *the regulatory framework* on the production, sharing and commercialization of seeds is rather complex. On one hand, there is “*the UPOV convention*” (lastly revised in 1991) which gives big protection to the varieties of seeds produced by big multinationals; on the other hand, in some countries the *constitutional courts* are recognizing the rights of local minorities in having their own seeds. Could you explain in simple words what are *the critical elements* of the regulatory framework on the “*seed market*”? In which way the UPOV convention help multinational in monopolizing the market of seeds and increasing their profits, and badly affects local farmers?

Answer:

Yes, it is rather complex and with many subtleties, but the main point is that all these conventions, all Constitutional reforms on seeds, or the seed laws now being enforced in many countries, all regulations, standards and norms on the issue, are aimed at *promoting intellectual property rights*, patents, and other documents that protect the private right to keep, use and trade with certain varieties, which, of course, in the short term is resulting in a huge monopoly of the big companies dedicated to this effect. They protect their right to impose “*technological packages*” that pair lab-seeds with agrochemicals, they promote *authoritarian crop intensification programs*, and of course these regulations strive to impose a *dependency* on any producer that is growing maize, or rice (for example). Through this lab-seeds' dependency, through these imposed crop-intensification programs, they directly attack the subsistence strategies by which communities had solved their

livelihood for many centuries. The ultimate effect is that people cannot live from the land and end migrating, vacating the land and making their territories prone of being pillaged or grabbed.

But their utmost power is really very fragile. Seeds are not things, they are complex weavings of relations and the transformation of seeds cannot be stopped by decree. So the corporations need to be sure that peasant seeds won't prevail. The only way of doing it is trying to enforce compulsory registries and certification systems (of a so called ideal individual that represents a so called variety). This is of course another way of eroding the vast universe of seeds in a few examples of their vast transformation potential. In the long run, all these "seed laws" will backfire against their promoters.

Question 6: What are, in your opinion, *the countries* around the world where international seed laws and trade agreement have had *the most negative impacts*, in particular in terms of biodiversity degradation, farmers' impoverishments and social degradation?

Answer:

This has been a continuous attack, and in many countries this has resulted in very extreme results. *India* is one example of the effect of lab-seeds and crop-intensification programs, with the thousands of suicides committed by desperate peasants. *Paraguay* has suffered even a "coup d'état" to enhance the role of multinational corporations that are seed-giants, promoting GM crops and extensive industrial monocultures. *Europe* suffered the first, and made the owners of rights truly new feudal lords exacting direct money from the laymen growing of varieties to which they have a title. In *France*, even, they have nonsense such as the "voluntary-compulsory" payment for the use of some seeds or vegetal materials. This is so because the so-called owner cannot, of course, show that the seed being planted is from the exact variety he or she has the right (due to the extreme variability normal to the infinite transformation of seeds), so he imposes the payment as a way of control. But the laymen that planted their own variety, cannot show that this variety is not the one of the so called owner, so they voluntarily pay in order not to be further disturbed by the landlord during the season.

In the not so long run, the monopolies are affecting the overall markets of food. 82% of all seeds traded commercially have some kind of intellectual property right. Ten corporations control 77% of the market. Monsanto, Syngenta and Dupont, alone, control 47% of it. The norms intend to turn compulsory that every seed is registered and to have a certificate that it is bought (that it is acquired) through the industrial corporative channels that are controlled by these few hands. The most negative effect of these laws is that they end "criminalising" the keeping, using and exchanging of any seed that doesn't fulfil these preconditions. This is said very plainly and easily but it entails attacking one of the most ancient strategies in the history of humanity. This strategy has made the food biodiversity we know nowadays, available for everyone, solving the subsistence of many million people for at least eight thousand years.

Question 7: As overall editor of *Biodiversidad*, you are mainly specialized on seed and biodiversity conditions in *Latin American countries*. Could you kindly explain what are *the critical points* to address on the topic of seed rights and biodiversity preservation in these countries?

Answer:

I am not specialized in seeds or in the biodiversity conditions in Latin American countries. On the contrary, all the people involved in the magazine are trying to maintain an integral vision so we can relate or link one aspect to the others. What is the relation between Land-Grabbing, change of the use of soil, deforestation, imposing industrial methods of agriculture, lab-seeds (and their laws and regulations attached), the poisoning of the environment (water, air, soil, animals, plants, people), the erosion of subsistence strategies, the eviction of thousands of persons from their territories, the growth of cities, the marginalisation of life in them, and the extractivist projects by which the corporations loot the vacant territories? We believe there is a vicious circle in all these various aspects of the attack against peasants and their territories. And seed laws are part of the legal framework put in place to achieve this.

One very strong example of this legal framework comes from *the Mexican Federal Law of Production, Certification and Commerce of Seeds (2007)* that contemplates exactly the high amounts in fines and even jail, if the law is “broken”. The criminalisation we are talking about is really very strong in this case.

Question 8: Over the last decades in many *Latin American countries*, local people and organizations, have strongly been fighting in order to protect their rights in producing, sharing and commercialize their own seeds (see “GRAIN, [Seed laws in Latin America: the offensive continues, so does popular resistance](#)”). Why in these countries does the thematic of seeds seem to be more sensitive than in other countries around the world?

Answer:

I think, in Latin America, the point is that people, the communities, are really keen on resisting this entire offensive. All these laws and regulations are really felt as what they are: “huge threats against the livelihoods of communities, a direct attack on the future, a direct erosion of local knowledge and ancestral strategies, a threat against the possibility of producing their own food, by their own means, in their own terms.” This is a threat against autonomy; a threat against the defence of their ancestral territorial life!

Question 9: In which *Latin American country* do you think there is the most dangerous situation in terms of *risks for land biodiversity and social uprising*?

Answer:

There are many countries in which there is such a dangerous situation. The danger is so diverse that it might change from country to country. México, Guatemala, Haiti, Honduras, El Salvador, even Costa Rica with its so-called happy country white-washed by the media. Colombia, Bolivia, Venezuela, Ecuador, Argentina, Paraguay. The dangers are there. Even in Canada now, the government and the corporations are so disrespectful of territorial rights that are insisting on attacking the Indian communities when they insist on “fracking technologies” and in the extraction of shale oil and gas.

Question 10: What do you think is *the best agricultural model* in order to preserve our environment and, at the same time, to feed the rising global population?

Answer:

The peasant traditional and contemporary versions linked to “*agroecology*” have proved to be a real alternative that may cool the earth (as *Vía Campesina* puts it). In this peasant agriculture, or peasant production of food (not all of it is growing food), there is collecting or gathering, hunting, fishing, livestock breeding, cattle raising, yard animals, there is a strong trait of taking care of many different details all year long. This assumption of responsibility is unique and it represents the most generous endeavour ever assumed.

Interview with Giuseppe Li Rosi

(Terre Frumentarie, Farmer, Sicily; <http://www.terrefrumentarie.it/>;
Terre e Tradizioni, Member and Chairman, <http://www.terretradizioni.it/>)



Giuseppe Li Rosi: Giuseppe Li Rosi is a Sicilian farmer; he runs the farm, "Terre Frumentarie". After a degree in "languages", he has changed his life, devoting it to agriculture; he is leading the family's company that has a story of three generations. Li Rosi's farm is very peculiar: he is growing *ancient Sicilian grains* with organic method; he has done it for about ten years, with the intent to protect them from extinction and enhance biodiversity. Giuseppe Li Rosi cultivates cereals and then sell or distribute them and their derived product at a local, national and international level. He was president of the *Stazione Sperimentale di Granicoltura di Caltagirone*, a research center which houses 49 ecotypes of local Sicilian grains. He is the main character of the documentary film "*La clé de la cité du volley grain*" (*The stolen key of the city of grain*) produced in Belgium by Jean -Christophe Lamy and Jean - Paul Vranken.

Terre Frumentarie: The farm "Terre Frumentarie" is located in Raddusa, in Sicily, between the provinces of Catania and Enna. The farm covers an area of 210 acres of land that is at about 350 meters over the sea level ; this land is exclusively managed with organic techniques. Giuseppe Li Rosi, the owner, has dedicated most of Terre Frumentarie's land to the cultivation of Sicilian ancient grains; in particular Terre Frumentarie focuses on five kind of grains:: *Margherito* (also called *Bidi*), *Timilia*, *Senatore Cappelli*, *farro lungo* or *Strazzavisazz*, and the wheat *Maiorca*. There are

also five acres of prickly pear and an olive grove. Moreover, the farm has been housing, since 2004, a field experimental catalog of 5,000 square meters, set up and managed by the *Stazione Sperimentale di Granicoltura di Caltagirone*, in which 40-50 varieties of indigenous grains are preserved.

Question 1: You are the founder of the Sicilian farm "*Terre Frumentarie*". This farm is very peculiar: instead of growing modern commercial grains, it grows Sicilian ancient grains, using traditional and environmentally friendly methods. Can you better explain what's *the core business of your company*? What made you decide to use this peculiar agricultural model instead of the industrial ones?

Answer:

My decision to produce only local Sicilian grains and enhance agricultural biodiversity in my lands has strongly shaped *Terre Frumentarie's* activities. These activities now basically consist of three elements: 1) make the populations of wheat distinct from each other; 2) use traditional techniques to enhance genetic improvements; 3) make our products marketable.

Therefore, firstly, I had to resume practices such as the "*Ammannato*" and the "*epurazione*" (purge), which are *selection or cleaning techniques* aimed at conserving the characteristics of the distinct populations of wheat, preventing them from the contamination from other varieties or species. Secondly, I had to allocate part of the land to *traditional experiments* (not made in laboratory) for genetic improvement, those used by farmers over thousands of years to thrive and develop an extraordinary biodiversity. Finally, I had to go a step forward: *transform the crop into finished marketable products* and *catch funds* for the activity of biodiversity preservation. I always say that "biodiversity must be eaten to be saved."

What dragged me into this "relatively" "new world" was a child reading: "*Terra, pianeta che sanguina*" (*Earth, the planet that bleeds*) by Teresio Bosco, 1972. This book impressed me so much as a child that, when I became adult, I realized that agriculture is one of the fundamental pillars for the preservation of life on Earth. I realized that industrialized production systems derived by "the Green Revolution" are destructive for both lands and farming families. They are a dangerous attack against the whole humanity.

Question 2: What are the *main differences* between ancient grains and the commercial ones and why consumers should prefer flour and products made from ancient grains? What kinds of ancient grains do you grow in your farm?

Answer:

Using local seed grains or any other local plant species is like entering a totally different world. It is like observing the agricultural reality through other eyes; you live in a different way. "You don't destroy anything"; you do respect land, air, insects, birds, bacteria, microbial flora, and yourself. You produce less (yields per hectare are halved), but you extract more nutrients from the earth: the sole of the ancient grains is higher and their deep roots reach minerals, not reachable by modern commercial wheat. In other words, yours are higher-quality products. But there is another

important factor which make ancient grains preferable for consumers: “gluten”; their gluten does not cause digestive problems; we have been eating these grains for thousands of years and our gut enzymes can digest its molecules without assimilation problems. Many people, with Gluten Sensitivity, declare that, by eating products made from local grains, don't have digestive problems.

So what grains do we grow? We cultivate the *Timilia*, that is a very special grain and is very versatile: with it, we can make pasta, bread as well as cakes and biscuits. We also grow the *Majorca* wheat and *Strazzavisazzi*, which seems to be the oldest in Sicily.

Question 3: Due to your work, you are often referred to as the "Guardian of Seeds". Apart from market objectives, *why, in your opinion, it is so important to protect ancient and native seeds?* Since you started your activity, have you observed a *loss of agricultural biodiversity?* What are the causes?

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Answer:

Biodiversity is the result of a planetary experience based on millions of years of changes and evolution. It is the container of all codes necessary for the production of food. Thanks to its infinite number of variables, it's the only insurance against climate change (the higher biodiversity, the higher is the adaptability to climate change). Biodiversity is more precious than any other treasure. Its preservation is one of the most important conditions for the survival of life on this planet. In our daily life, each of us put great care in guarding the keys of his house and the code of his credit card, or in protecting his children from any pains, because his children represent his future. Well, we should know that “biodiversity is the future of all humanity”.

But biodiversity means also *freedom* and *food sovereignty*, and these two concepts clash with the interests of those few big corporations (men) who want to make money by monopolizing the food and agricultural markets. These corporations are trying to marginalize natural models of production, accusing them of failure and inadequacy. They have pushed all European governments in issuing laws against traditional production systems and, together with universities, they are strengthening the use of chemicals in agriculture. They are strengthening two systems of mass destruction: *nitrate ammonium* and *herbicides*.

Question 4: Currently, what is *the situation in Italy* about native seeds? Are there any other companies like yours? What's the *trend*: towards a further standardization of seeds or a return to tradition and biodiversity? Are there differences between North and South Italy?

Answer:

Well, in Italy we are observing a “big awakening”. Concern with the environment and sustainable agriculture is no longer an isolated issue and a reverence for nature is growing in both the countryside and cities. Many farmers are introducing hard and soft grains, as well as, a great variety of fruit plants and animals in their activity. They are becoming more inclined to biodiversity. Meetings and courses on sustainable/biodynamic agriculture and permaculture are proliferating day by day and several groups of young people are developing *urban gardens*; in short, the concept of healthy agriculture is also penetrating cities.

Something is changing also at a policy level. "Recover the contact with the countryside." That is one of the objective of the European Union's policies. Over the past 60 years, we have forgotten how much Nature is important for us; We have to understand that Nature is the only place where modernity can be developed!

So, are there other farms which grow ancient grains? Yes, and many other are going to start. As for our experience, we are a farm very inclined to networking. We have given our support to other 35 farms in Sicily; now they use *Timilia* seeds in about 500 hectares; we have also involved two processing companies (for making products) and two institutions as the *University of Palermo* and the *Agriculture Station of Caltagirone* (in our experimental activities). In the *Agriculture Station of Caltagirone* we are growing "germ-plasm" to be used by farms that want to make products for the market. Using ancient grains and the practice of seed sharing reflect what all farmers want: "more freedom in managing their business!"

On the contrary, big corporations (expression of few interests) are now the only subjects which push for standardized seeds; they want to convince both farmers and consumers that their system represent the best solution to solve future production problems; but that is not true: in reality theirs are old and inadequate systems. They are going to flop; their systems are economically and environmentally unsustainable: 1 industrial agricultural farm closes every 20 minutes!

Are there differences between North and South Italy?

Therefore, we are observing a return to biodiversity-based agricultural models. In this process I don't see any substantial differences between North and South Italy: throughout the entire Italian territory there is a growing enthusiasm. However, it is worthwhile to highlight that Italy and in particular Southern Italy are a great source of Biodiversity: Italy owns 50% of all the European biodiversity and Sicily 50% of Italian biodiversity (that is a quarter of European Union's total biodiversity). Therefore, South Italy is the land where a new process can start: a process which restore genetic resources, to be spread in as many farms as possible; a process that can oppose the development of those bad practices, like the use of foreign hybrids and GMOs that are destroying our agricultural biodiversity.

Question 5: *Vandana Shiva* in India has created several "seed banks" in the context of the project "Navdanya". Can you explain to us what is "seed sharing"? Do you know experiences like this in Italy?

Answer:

In India, multinational companies have caused serious problems to agriculture; the establishment of industrial systems, based on the adoption of chemicals and GMOs, has seriously limited the use of local seeds and has caused hundreds of suicides among poor farmers. *Vandana Shiva* has created a movement which defends the rights of farmers and supports the liberalization and sharing of local seeds. In Italy, *Navdanya International* is going to establish a memorandum of understanding to create the Bank of seeds, the University of the Earth or the Festival of peri-urban agriculture.

Moreover, in Italy there is a working group, called *Semi Rural Network* (in operation since 15 years ago); it is recognized at the national and European level and is a member of the *European*

Coordination for Farmers' Seeds. With its daily work and strong capabilities, it has supported the recovery of biodiversity, first of all by enhancing the practice of seed sharing.

Besides, some Italian regions seem to be very sensitive to the theme of biodiversity. Six regions, including Sicily, have a regional law for the protection and enhancement of agricultural diversity; there are special commissions which receive applications for the registration of endangered varieties that need to be endorsed and spread. (note: I was one of the main supporters for the realization of the Commission in Sicily when I was in charge of the Special Commission for the Stazione di Granicoltura).

Question 6: *International laws* that rule the properties on seed varieties (i.g. the *UPOV Convention* and the *TRIPS*), together with *international trade agreements* and lobbying activities from *agribusiness corporations* (which want to monopolize seed and food markets) are seriously threatening small farmers, especially in India and Latin America (where several local riots and judicial trials have occurred). Have all these factors also affected Italy's farmers? In particular, in which way have these factors affected your farm?

Answer:

The European Union (EU) has enacted a seed law that favors industrial agriculture; indeed, according to this law, EU funds for agriculture can be delivered exclusively to farms that use seed varieties registered in *national seed lists*. Such seeds do not belong to biodiversity; they belong to corporations, private seed companies or universities! Accordingly, using local seeds does mean losing European funds. Moreover, the purchase price of registered seeds includes the payment of royalties used to fund research centers. Finally, even a ban has been placed on the use of local varieties. The final results are: 1) seed varieties not recognized in national registers are disappearing; 2) the "millennial" practice of seed sharing between farmers is now "illegal." Now, only seeds coming from "lab-genetic improvements" can be sold; plants coming from such seeds need to be "pumped" with chemical fertilizers and defended from the "weeds" (*read nature*) through the use of *phyto-sanitary products* (*read poisons*).

Therefore, my decision to use local varieties clashed with these laws; in other words, I'm a "criminal". But, working in absentia has only slowed down the development of my business: it has not stopped nor diverted it. But...

Question 7: Often, *patented seeds* and *Genetically Modified Organisms* (GMOs) are considered the path to the "future", the main solution to the following challenges: how to feed a growing population and how to face climate change. Can local seeds and a larger biodiversity better address these issues?

Answer:

The growing global population (and the debate on the capability to feed it) has given room to build the "*Nova Planetary Fear*"; now big corporations are taking advantage of this fear; they are proposing GMOs as the most appropriate solution to that problem. They are creating a new

market in order to make stable profits. But what do GMOs really represent? They are nothing more than the exaltation of patent seeds; they are an attempt to overcome the failure of the patented seeds and the Green Revolution, which have disconnected farmers from nature and built an agriculture extremely vulnerable to climate change. Researchers are searching the solutions to this failure into the DNA of plants rather than by deepening the knowledge in how Nature really works. GMOs are not the answer to agricultural sustainability. GMOs have already caused strong damages in *Argentina* (financial crisis in the nineties), in *India* (erosion of biodiversity and mass suicides) and so on.

Actually, the way to sustain agriculture lies in the knowledge of Rural Civilizations, now obscured by an “overwhelming and arrogant science” which has built its “poetic methods” by using “only 5%” of the immense Peasant knowledge. Let’s stop for a moment and try to give an answer to the following questions: How did our ancestors preserve agriculture’s capacity over the past 9000 years? Have they relied on some research centers to tame wild plants? How did they create thousands of varieties of apples, wheat, rice, bean, each of them suitable for every microclimate or soil? Now there is only one variety for hundreds of latitudes and it depends on *therapeutic methods* from the agricultural science to survive. Scientist are looking for homogeneity, standardization and certification. That is a big mistake. It is not coherent with Natural principles; “Nature” is the expression of diversity, variability, evolution; Nature takes changing shapes: its shape is like that of a fire! Therefore, the first step towards sustainability is to understand these clear differences between industrial and natural principles in agriculture. Only by adopting models respectful of natural principles, we can effectively address the needs of a growing population. In my opinion, those men who are looking for a solution different from this one “are not earth-men.”

Question 8: Several studies (see the Report of the United Nations, *Trade and Environment Review 2013*) state that small-scale farmers and the return to traditional agriculture are the only way for an environmentally sustainable agriculture and to feed the growing population. What do you propose in order to *promote a return to traditional agriculture and support small-scale farmers* around the world and especially in Italy?

Answer:

Let’s me talk about my last innovative experience, thanks to which my farm was used as a case study by the *Food and Agricultural Organization* (FAO). Three years ago I started to adopt a method for genetic improvements completely opposed to those adopted by modern science; it is called “*Evolutionary Genetic Improvement*”: it uses a mixture of 5,000 varieties and thousands of crossbreeds in order to cause the propagation of variants. This large diversity have all the elements needed for making a seed suitable to any fields in any parts of the world. By adopting this method, within a short period of time, the production capacity grows by 50% and become more resistant (thanks to its higher adaptability) to climate change. We also call this method “*Liquid Agriculture*”, as it adapts to the farm as a liquid to the shape of its container. So, a sustainable agriculture needs the “right seeds” and an “higher awareness” of the land.

Then, there is the question of market; firms that doesn’t have marketable products cannot exist. In that sense, the demand side plays an important role: consumers should ask for healthy products and be ready to spend more for them. The problem is that industry has pushed down both the

price and the quality of products and now consumers are accustomed to spend less. They should be made in condition to understand the value behind eating higher-quality (and healthier) products. By this way, they will recognize a premium price to such products.

Question 9: Currently, many people are rediscovering the importance of agriculture and looking for a sustainable lifestyle, that is in harmony with natural cycles. A new phenomena is emerging: many young graduates are coming back to agriculture. That was also your path. *What advice would you give to these new generation of young farmers?*

Answer:

Young farmers should have the "thirst" for knowledge! They should, for a time, turn off internet and go in search of "elderly farmers", those who hold the knowledge that cannot be found in books. In fact, much of the agricultural knowledge belongs to oral traditions, often neglected by academic institutions and modern science. So, "Go in search of the agricultural history; Look for the vocation of your territory!" That is the most important message I want to give to this new generation of young farmers. During this research process, they will certainly find the starting point of their own story, their mission, their own role on this planet. It is true, during their pattern they will have some problems, but I think that those people who have the strength to come back to agriculture, also have the energy for facing those problems. However, my final message is the following: "Consider yourself as *a small thing in a bigger project*; try to interactively collaborate with the forces that stand behind (and govern) Nature. Then, Nature will compensate you!"

Question 10: What are your *plans* for the future?

Answer:

In Sicily, we have already created a network of 35 companies for the production of local genetic resources. In *Tuscany* we have started a similar project, while in *Friuli* and *Marche* studies are already in place in order to bring there our experience. Our plans also include a beautiful project in *Lesotho*, in its ten provinces; there we are going to introduce the "*Evolutionary Genetic Improvement*" (EPB) in order to recover the wheat production capacity severely damaged by climate change; the revenues of this initiative will be allocated to social projects. The model is simple: draw on local genetic resources from germ-plasm banks and spread them throughout the territory. Ultimately, what we are trying to do is to improve and refine our "*Liquid Agriculture*" method; we want to create a new agricultural model which can be applied at a global level. "We want to sow, propagate and evolve!"

Land Grabbing: Development or Anti-development?

Written By
Dario Ruggiero⁵

May 2014 – www.lteconomy.it/en

“Land Grabbing reduces local employment and, the people employed fall in miserable labor conditions. In our thinking, this is not development; it is anti-development.”

Henk Hobbelink, April 2014

“...the development of Oil Palm plantations and other bio-fuel crops in poor countries to feed cars in the North is not the solution for the energy crisis; the real and effective solution is to reduce energy consumption..”

Henk Hobbelink, April 2014

“We want it to be our plantation. We need land now. Our village is starving.”

Patrick Chi, resident of the Ekong Anaku Village, South-East Nigeria (GRAIN, December 2013)

“I am not telling a story out of a blue but I am speaking out of the tears that came as a result of our land that was grabbed. What makes me as Ochen to enthusiastically stand against land grabbing is that the displaced people are not given another place where they can also proceed with life.”

Ochen Solomon, Ugandan schoolboy (GRAIN, April 2013)

“Africa Land Grab is turning the African continent into a slave plantation and we, Africans, slaves in our own land.”

Stop Africa Land Grab, “The African People’s Land Grab Declaration”

⁵ **Dario Ruggiero** has a degree in Economics; he works as an economist and is the founder of the website www.lteconomy.it/en.



Source: Hungarian Spectrum - <http://hungarianspectrum.wordpress.com/2012/06/23/land-grabbing-fidesz-style/>

Dedicated to "Henk Hobbelink" and "GRAIN" for their work in making us aware of the reality behind foreign investment in poor countries



Henk Hobbelink



GRAIN

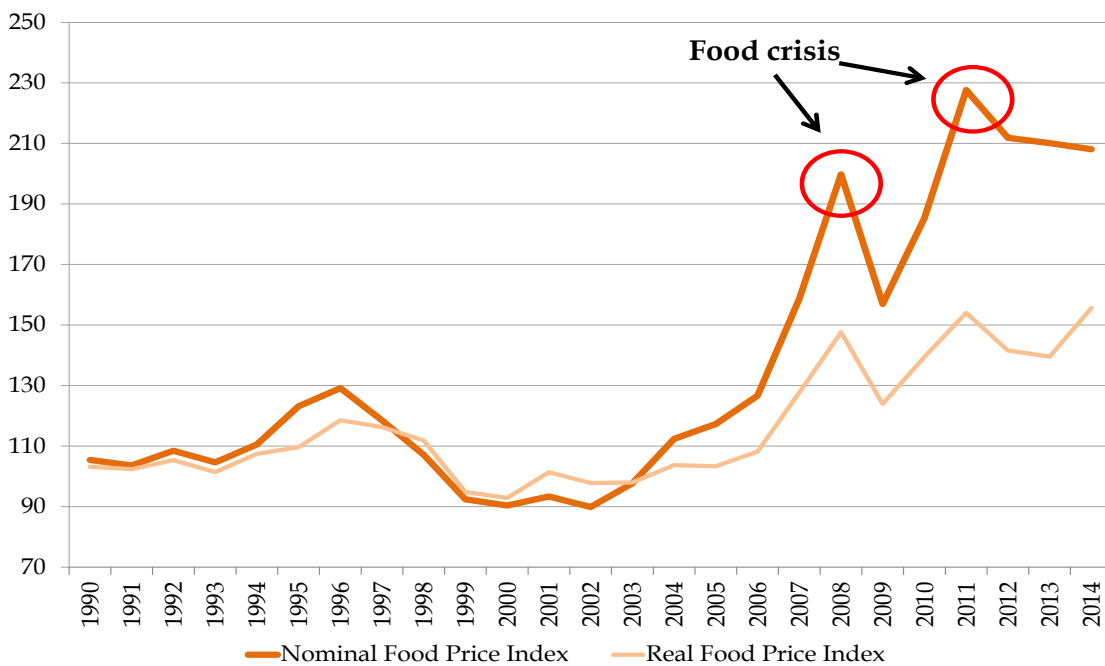
1. Land Grabbing: when it started and its size

In 2008 the non-governative-organization (NGO) GRAIN published a Report ([The 2008 land grab for food and financial security](#)), on the phenomenon known as *Land Grabbing*. According to the GRAIN’s report, some relatively wealthy countries and private investors, driven mainly by the 2008’s *food* and the *financial crisis*, have fastened the appropriation of fertile lands in poorer countries, mainly at the expense of local farmers. GRAIN stated that at that time there were two triggering factors: the search for *food security* and the search for *financial profits*.

With regards to the first factor (the search for food security), after the 2008’s food crisis, when the price of basic products raised by 40% in a year (followed by even a major increase between 2010 and 2011), some countries (basically food-products-importers), in the attempt to lower the risk of raising food bills, have decided to buy fertile lands in other countries. It is the case of Saudi Arabia, Japan, China, India, Korea, Libya, and Egypt. According to the *Land Matrix dataset*, *Land Grabbing deals* have increased over the last years, especially in 2009, when they hit a maximum.

Graph 1 – Food crisis in the past decade

(Food Price Index* 1990-2014)

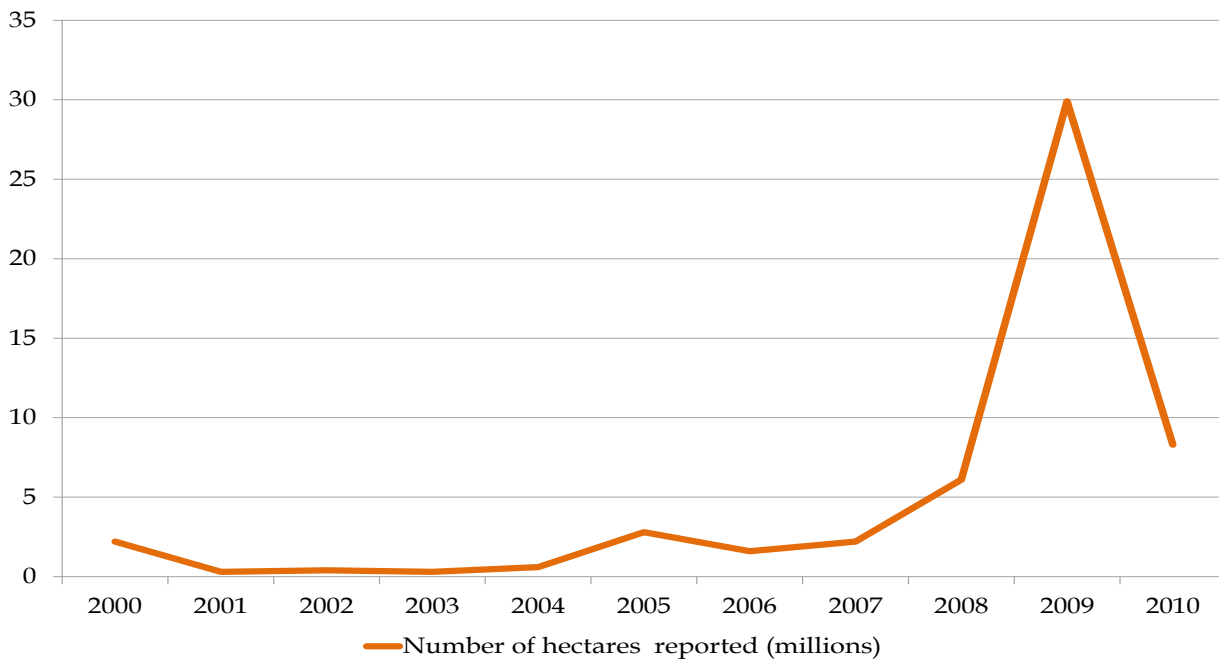


* The FAO Food Price Index is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices (representing 55 quotations), weighted with the average export shares of each of the groups for 2002-2004.

Source: LTEconomy elaboration on FAO data

Graph 2 - Land Grabbing between 2000 and 2010

(Deals, in millions of hectares)



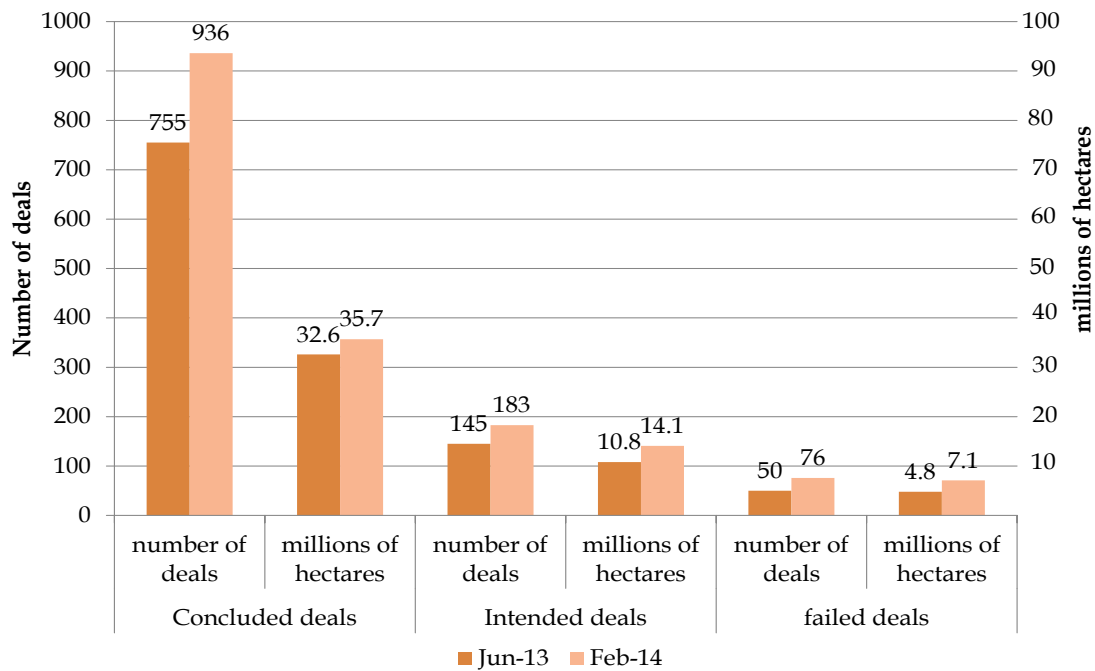
Source: LTEconomy elaboration on International Land Coalition data (January 2012)

As at June 2013 there were 755 deals in total, amounting to 32.6 million hectares; Since then, according to the *Land Matrix dataset*, new transnational deals have been added and previous information has been updated.⁶ In particular, with reference to the latest *Land Matrix newsletter* (February 2014) there have been observed 181 new deals in the category “concluded deals” that stand at 936 concluded deals (the number even rose to 949 with information available at May 2014), 38 new deals in the category “intended deals” that as for February 2014 stand at 183 intended deals, 26 new deals in the category “failed deals” that stand at 76 failed deals. In terms of aggregated sizes, as of February 2014, concluded deals amounted to a total of 35.7 million hectare of area under contract (with announced intentions of 58.8 million hectare). Concluded deals have thus increased by almost ten per cent from 32.6 million hectare in June 2013. Intended deals covered an area of 14.1 million hectare (compared to 10.8 million hectare in June 2013). A significant increase was also reported for failed deals (from 4.8 to 7.1 million hectare). Finally, as for May 2014 (when this article went to press), the aggregated size of concluded deals amounted to a total of 35.9 million hectare.

⁶ The estimate published in the June 2013’s newsletter is lower than the previous estimates, as it concerns exclusively medium-low-income countries.

Graph 3 – Recent trends in Land Grabbing deals

(Number of deals and in millions of hectares)



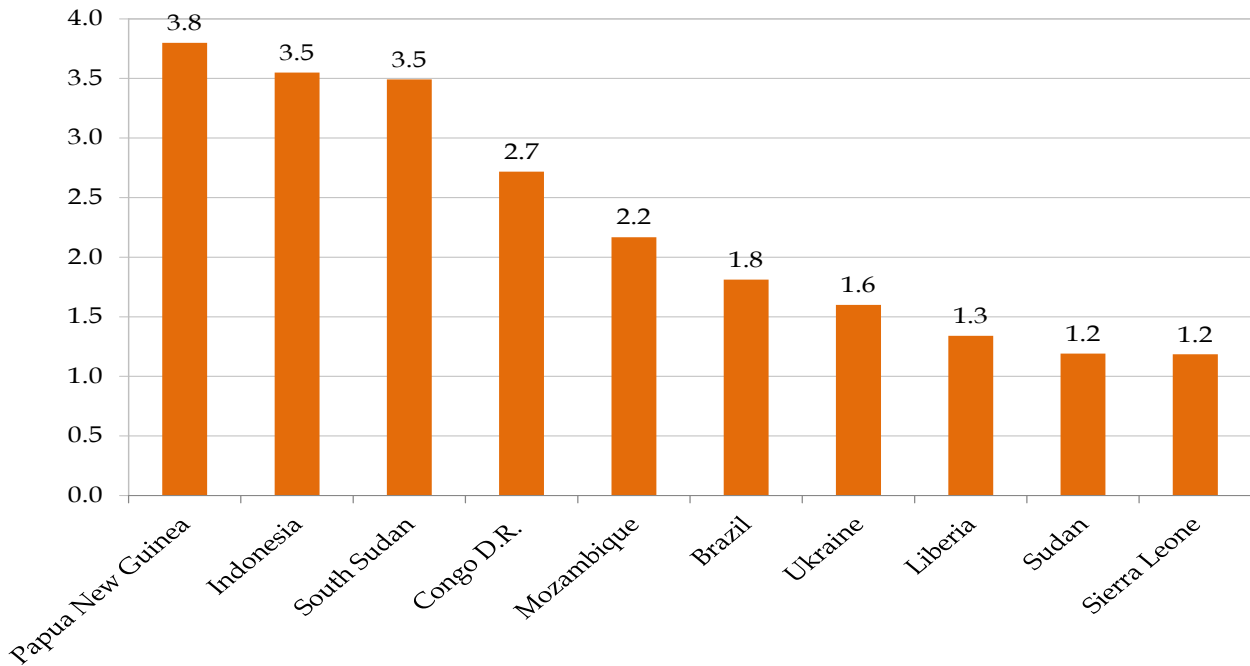
Source: LTEconomy elaboration on Land Matrix data (February 2014)

Looking at the top **10 target countries**, we find the same countries as in the last newsletter (June 2013) with minor changes in the order. New-comers are *Brazil* and *Ukraine* – the first South American respectively Eastern European countries among the top 10 – that replace Ethiopia and Madagascar (now on place 11 and 19 respectively). The two countries with the largest areas under contract are Asian countries (*Papua New Guinea* and *Indonesia*), followed by three African countries.

The main drivers of land-acquisitions in the Land Matrix database are related to *agricultural production with the cultivation of food crops* being the most important investment intention with 331 concluded deals amounting to a contracted area of 9.6 million hectare. Of these, 233 projects have started production on 5.2 million hectare (contract size, not actual production). The second most important driver are *biofuels* with 183 deals on 7.5 million hectare of which 119 projects have started production on 4.0 million hectare. *Non-food agricultural commodities* make up 110 deals of which 54 are operational. The majority of these deals are *rubber plantations* (60 per cent) but they also comprise *cotton* and products for the *cosmetic industry* (e.g. palm oil). 34 projects concentrate on livestock, all of these are operational. Besides agriculture, *forestry* (92 deals of which 78 deals have started production) and *tourism* (12 deals of which 7 are operational) can be identified as drivers. For 53 cases, there are no precise information on the intention of the investment.

Graph 4 - Land Grabbing: The top 10 target-countries

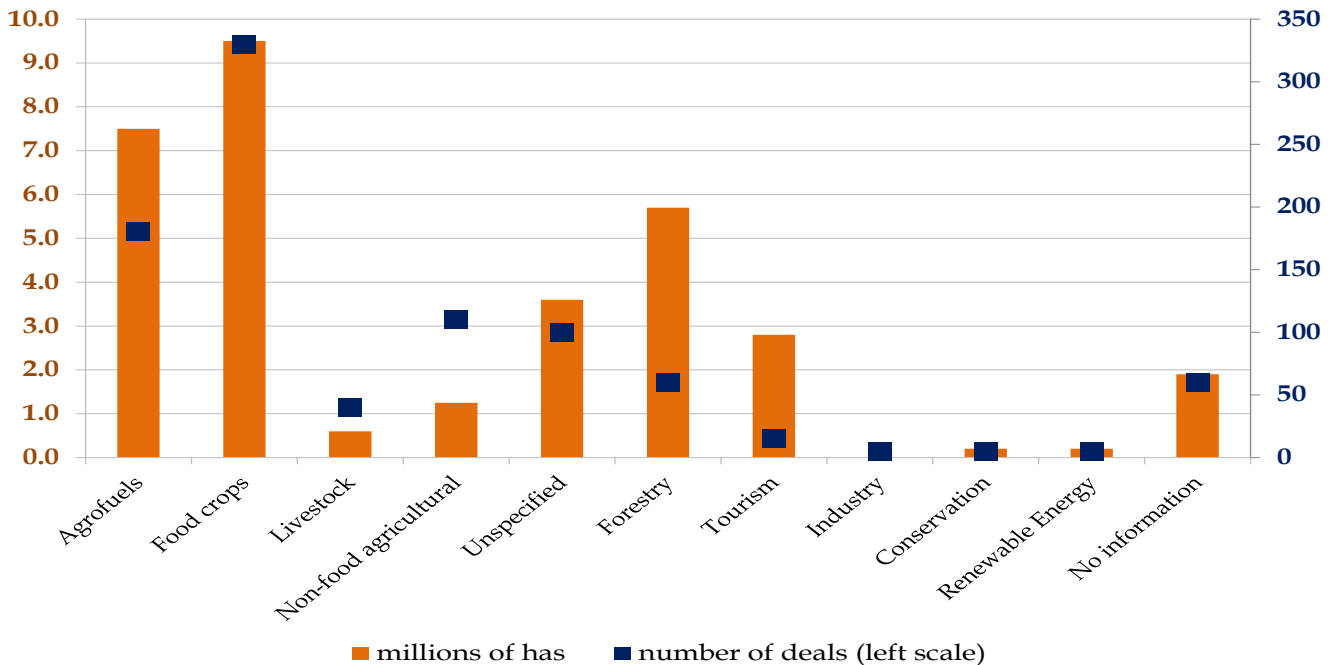
(Land deals, millions of hectares)



Source: LTEconomy elaboration on Land Matrix data (data extraction: May 2014)

Graph 5 - Land Grabbing main drivers

(Millions of hectares and number of deals)

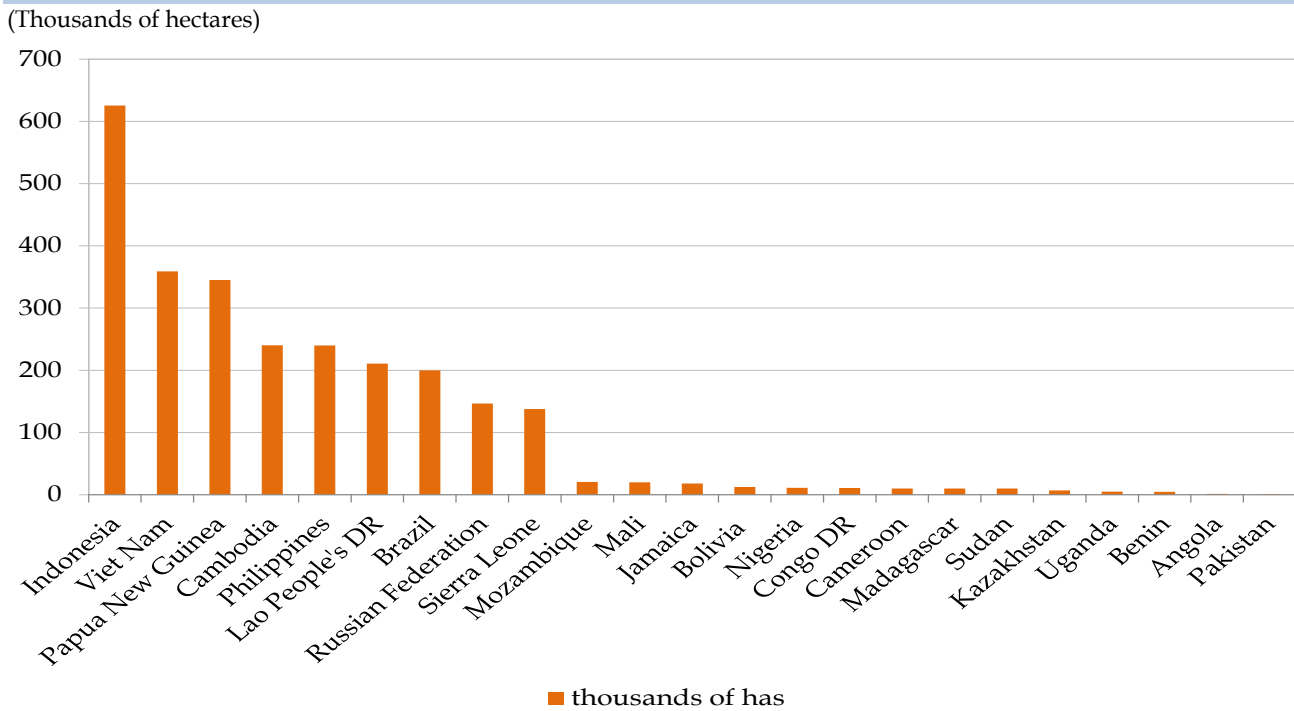


Source: LTEconomy elaboration on Land Matrix data (February 2014)

The causes behind the strategy of *increasing food security* depend on the specificity of the countries that have adopted them. Let's consider **China**. This country is self-sufficient in terms of food production, but its population is enormous and several arable lands are gradually giving way

to industrial-sites; moreover, water management is subject to increasingly pressure by economic development. It follows that *food security* is becoming one of the first priorities in China’s agenda. Actually China’ strategy of outsourcing the production of food abroad started before 2008. Under this strategy, China has signed about 30 deals with its “friend-countries” in the past years. These deals involve the provision of fertile lands to China in exchange for technology transfer and infrastructure development. China has outsourced food production in both Asian and African countries. Most of Chinese offshore farming is dedicated to the cultivation of *rice, soybeans and corn*, along with agro-fuel products (sugar cane, cassava, sorghum, etc ...). The rice produced abroad invariably means hybrid rice, grown from imported Chinese seeds, and Chinese farmers and scientists are enthusiastically teaching Africans and others to grow rice “the Chinese way”. As local farmers don’t know exactly if the rice is to feed their own people or the Chinese, a lot of resentment has been building up against local governments’ strategy to undersell their lands.

Graph 6 - Chinese investment in offshore lands*



* All projects since 2000 are included, excluded those inside China or abandoned.

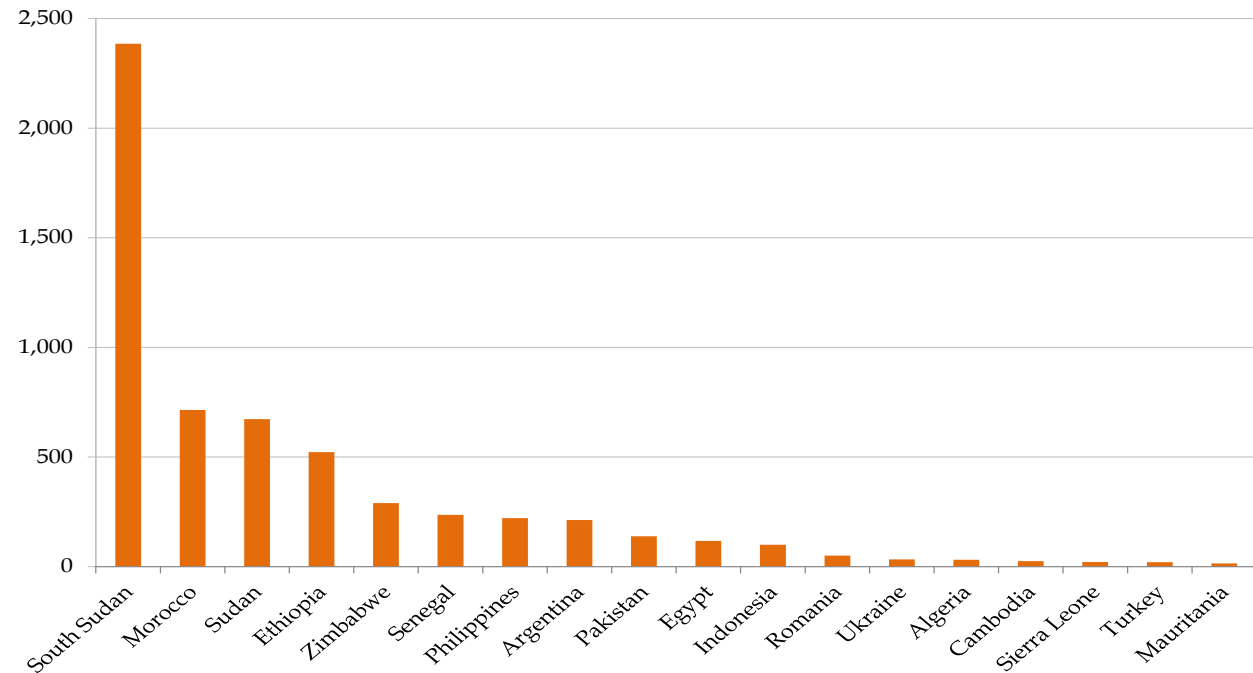
Source: LTEconomy elaboration on Land Matrix data (data extraction, May 2014)

Now let’s consider food security strategy in **Gulf States** (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates). As nations built in the desert, they have scarce soil and water with which to grow crops or raise livestock; however they have enormous amounts of oil and money, which gives them powerful leverage to rely on foreign countries for their food. Nevertheless, recent food crisis, together with a weaker dollar in relation to euro (most of food imports comes from countries in the euro area) has caused a big increase in their financial expenses for food imports: Their food import bill ballooned from US\$8bn to US\$20bn in the 2003-2008 period. Since most of the population in these countries is largely made up of low-wage migrant workers , Gulf States must ensure low food prices. In order to reduce their vulnerability to new

food crisis, these countries have signed deals by which they will supply capital and oil contracts in exchange for guarantees that their corporations will have access to farmland and be able to export the produce back home. The most heavily targeted states are, by far, *Sudan and Pakistan*, followed by quite a number in *south-east Asia* (Burma, Cambodia, Indonesia, Laos, Philippines, Thailand and Vietnam), *Turkey, Kazakhstan, Uganda, Ukraine, Georgia, Brazil* .

Graph 7 - Gulf States' investments in offshore lands

(Thousands of hectares)



Source: LTEconomy elaboration on Land Matrix data (data extraction, May 2014)

Let's now consider the other cause behind the Land-grabbing phenomenon: *financial speculation*. Climate change, soil destruction, the loss of water supplies and the plateauing of mono-cultured crop yields are bearing down as big threats to our planet's future food supplies. This translates into forecasts of tight markets, high prices and pressure to get more from the land. Land is becoming a *scarce resource* and, therefore, a source for gains. This has triggered a flow of private investments towards this sector. Throughout 2008, an army of investment houses, private equity funds, hedge funds and the like have been snapping up farmlands throughout the world. The most targeted countries are: *Malawi, Senegal, Nigeria, Ukraine, Russia, Georgia, Kazakhstan, Uzbekistan, Brazil, Paraguay*, even *Australia*. They have all been identified as offering fertile land, relative water availability and some level of potential farm productivity growth; The time horizon investors are talking about is, on average, 10 years, with projected annual rates of return of 10-40% in Europe or up to 400% in Africa.

The boom in land grabbing from governments and private investors underline some clear trends: 1) *governments' confidence on food markets is falling*, therefore, in order to minimize the risk of raising "food-bills" they are acquiring lands abroad where they can raise their own food; 2) *fertile lands are becoming a scarce resource* and, therefore, they are a source of gains for private investors and

financial speculators; 3) *local farmers are progressively losing the right to cultivate their own land for their local food needs. In poor words, several populations are literally dispossessed of their lands and are losing the right to make decisions on their destiny and that of the lands where they live.*

2. Some key points on Land Grabbing: Economic development or “antidevelopment”?

The first point to clarify when talking about Land Grabbing is the question of “Economic development”. With reference to *West and Central Africa*, big corporations, their lobbies, international organizations and Land Grabbing supporters, say that foreign investments in these countries bring *economic development and occupation*. In reality, the evidence shows that this is not true. In particular, according to the “*Calabar Declaration*”, an agreement signed by several organizations that work in support of small farmers, “where multinational companies have engaged in implementing large-scale monocultures, they have left misery and poverty.” The question is simple: often foreign investment take over the land where before used to live thousands of people and work several local farmers. Then this new big farm uses less workers and more machines: employment falls! Moreover, not all the employees in the new firm are local people: there are some jobs which unskilled local people are unable to do; they need western skilled people. Finally, these local workers are under-paid and live in misery conditions. The net result of a foreign investment is often: “less employment, underpaid workers and people unable to produce their food and feed themselves. ”

“It is true, when these companies take control of farmland in poor countries, they bring machineries, new skills and employ some people. But the evidence suggests that the amount of people employed is much less than the amount of people that used to live and work there before the investment: *the net result is a loss of employment*. Besides, part of this new employees come from abroad, in order to do skilled jobs that local people are unable to do. Finally, the unskilled local employees, very often, get *wages below the minimum levels*: we have seen in many countries, in particular in Ethiopia and in Sudan, that people are paid less than 60-80 cent per day (less than 1 dollar, that is the threshold established by the World Bank to define the line of poverty in the world). Summing up, Land Grabbing reduces local employment and, the people employed fall in miserable labor conditions. In our thinking, this is not development; it is *anti-development*.”

Henk Hobbelink, GRAIN, Founder,
Interview with LTEconomy (April 2014, www.lteconomy.it/en)

Another point to clarify concerns the relation between foreign investment and the necessity to address the current and future crisis, such as the “food crisis” and the “energy crisis”. Again, big corporations and their supporters argues that these investments are the key to face the growing *energy needs* in Western countries and the growing demand of food to feed the increasing global population. That’s not true again. The energy crisis is something more related to an overconsumption of energy in Western countries as well as inefficiencies in the production and consumption of energy. In order to solve the energy crisis, Western countries, together with emerging countries, have to work on the side of the energy demand rather than on the supply side. It is the consumption of energy and the inefficiencies in the industry and household sectors which must be reduced; we cannot use land in Africa to produce Oil Palm in order to feed cars in

Western countries! This is an absurdity. Similar conclusions emerge with reference to the other challenge: *the growing demand of food*. It's true, according to the major projections, in 2050 global population will reach about 9 billion people (2 billion people more than now); but it is also true that there is a growing evidence that small farmers are more efficient and productive (if we use the amount of land, not people employed as denominator of the index) than big farms (Vandana Shiva, Reurgence & Ecologist, March-April 2014); UNCTAD, 2013); the pattern to feed more people is not industrial agriculture; it is "agro-ecology" and that also means more skilled small farmers around the world. Besides, with an impellent global food crisis we cannot go on in using land in Africa for bio-fuels! Finally, according to the Food and Agriculture Organization (FAO), about 1/3 of the food produced get waste from the production to the consumption phase (FAO,2011).

"In our opinion, the way of how the industrial food system is expanding is not the right way to better manage nutrition and energy needs in the world; the industrialization and internationalization in agriculture is imposing a system organized on a much more exploitation of people and resources. In the case of bio-fuels, the development of Oil Palm plantations and other bio-fuel crops in poor countries to feed cars in the North is not the solution for the energy crisis; the real and effective solution is *to reduce energy consumption*. Moreover, [many studies show that the production of biofuels is exacerbating the climate crisis, not solving it.](#)"

Henk Hobbelink, GRAIN, Founder,
Interview with LTEconomy (April 2014, www.lteconomy.it/en)

So what is the *real reason behind this foreign investment* in agriculture and *what are the real consequences for local people*? Profit! Big corporations and investment houses invest in these poor countries only in order to make profits, regardless the usefulness of the investment for local peoples. A clear example of that is "Karaturi". Karaturi Ltd, the Kenyan flower production unit of Karaturi Global (India), after years of exploitation of local resources and tax evasion is now on the verge of collapse, and Africans are paying the price. Karaturi workers and their children are not the only portion of the Kenian population that are paying the consequences of such a collapse. Karturi Ltd has been used by Karaturi Global in order to increase its profit and cash flow. But that is not the only case; almost all investments are driven by profit. Profit is the "condition sine qua non" for such investments that in some cases are made in order to produce food (prevalently for exports markets) and in other cases to produce Oil Palm or other crops in order to feed the bio-fuel industry. These investments are not made in order to enrich local communities! In conclusion, even if foreign investment in agriculture were made in "transparent conditions" (by now almost all such investments have been conducted without an appropriate consultation of local people) there is the problem of worsening conditions for local communities: they lose their land, they get under-paid jobs, they lose their primary source of food. This is "Anti-development", not "development".

3. Focus on the biofuel sector - Land Grabbing for biofuels

Land Grabbing for the production of raw material (oil palm, sugarcane, jatropha and so on) is highly hitting countries such as *Sierra Leone* (sugar cane), *Guinea* (jatropha), *Brazil* (sugar cane), *Indonesia* (sugarcane and oil palms), *Colombia* (oil palms). The entire list of countries affected by

Land Grabbing for biofuel interests is available at GRAIN's website; Totally the hectares of land grabbed used for this purpose is about *17 billion*.⁷

Predictions are that global demand for biofuels will hit *172 billion litres by 2020, up from 81 billion litres in 2008*. At current production levels, that would mean *an additional 40 million hectares of land* would have to be converted to growing crops for bio-fuel.⁸

The market of biofuel is dominated by three main customer: *the US, the EU and Brazil*. Together they account for *80 percent of global biofuel consumption*, and this is not predicted to change anytime soon. Of the three, *the EU* is the only one that relies heavily on imports of feedstock (crops brought to Europe for processing into biofuels) as well as food imports to replace European oilseeds that are diverted to biofuel production. *In 2008, the EU imported around 41 percent of its biofuel feedstock needs*. Europe is also where the biggest increase in demand is expected to come from over the next decade. The EU-27 mandate, a new proposal by the European Commission, sets a 2020 target for consumption of biofuels equivalent to more than 40 Mtoe (million tonnes oil equivalent).

The EU would have to devote 21 million hectares to biofuel production to meet its 2020 demand at current yield levels. That's nearly double the total area planted to oilseeds in the EU in 2012 – more than the entire area of arable land in Italy and Spain combined. *No doubt the EU will have to source an increasing share of its biofuel crops from elsewhere to reach its targets*.

Cheap *palm oil* is the obvious substitute. Oil palm plantations in the tropics yield four times more biodiesel per hectare than European oilseed crops, and it would be possible to meet the EU's entire 2020 demand for food crop-based biofuel from *5.5 million ha* of oil palm plantations. Establishing these plantations, however, is no small undertaking. Oil palms only grow in *tropical areas* near the equator, greatly limiting where expansion can take place. *Indonesia* continues to be a main area of expansion, with two thirds of new plantations being carved out of rain forests. A more recent target for expansion is in the forests and agricultural lands of *West and Central Africa*.

Soybeans are the other major crop imported into the EU for biofuels. Most of any added production for 2020 would likely come from *Argentina* and other countries in the *Southern Cone of Latin America*. But soybean plantations are not nearly as productive as oil palm, producing only 0.31 toe/ha of biodiesel. To satisfy the EU's 2020 five percent target for **food crop-based biofuels**, from soybeans alone it would require the planting of nearly *70 million ha* in Latin America.

The EC's new rules on biofuel production to meet 2020 standards state that 5% of raw materials must come from **non-food crops**. One of the few economically viable options that could meet the supply needs of the EC directive is *jatropha*.

Jatropha went through an investment boom in the mid-2000s. It was portrayed as a miracle crop that could be grown on marginal lands with few inputs to produce plenty of oil for biofuels. Many companies and government programmes were launched, but the reality soon sunk in. It turned out the crop was like any other commodity crop – high yields, at least high enough to make the big

⁷ See the entire article on GRAIN: <http://www.grain.org/article/entries/4653-land-grabbing-for-biofuels-must-stop>

⁸ According to United Nations Environment Programme (UNEP), 35.7 million ha were used for biofuel production in 2008. UNEP predicts a somewhat higher figure of 80 million ha by 2020, an increase of 44.3 million ha over 2008, and some studies go as high as 116 million ha by 2020, and even 1,668 million ha by 2050. See UNEP, ["Towards sustainable production and use of resources: assessing biofuels," 2009 \(pdf\)](#)

projects economical, required lots of water, decent soils and the use of plenty of fertilisers. By December 2012, there were *over 130 land grabs for jatropha production registered around the world*, adding up to over nine million hectares.⁹ Many of these projects seemed unlikely to ever get off the ground. But the EC's new proposal could change that by establishing a massive new market for biofuel from non-food crops, meaning jatropha would not have to compete against more productive alternatives such as oil palm.

The debate around "sustainability" of biofuels should not obscure the simple reality that it is not possible to develop enough biofuel crops to meet today's targets without displacing communities, undercutting food production and chopping down forests. Tacking a "sustainable" tag onto some of the supply does nothing to change this overall equation.

Beyond the land grabs, another nasty consequence of the surging demand for biofuels has generated more attention: *its impact on food prices*. Biofuels eat up over a third of coarse grain production in the US, the world's largest exporter, and 80 percent of oilseed production in the EU, the world's second largest importer.

Finally, there is the problem of the population's nutrition: best estimates are that demand for food will increase by 70-100 percent by 2050. The world will have to meet this new demand under much more difficult circumstances. Already the amount of arable land per capita has decreased from 0.41 to 0.21 hectares since 1960, and this land is increasingly degraded, with around 25 percent of the world's agricultural land now classified as highly degraded. Climate change will make things worse, pushing the total "drought disaster affected" areas of the world from a current 15.4 percent of global cropland to 44 percent by 2100.¹⁰ *Using the world's precious farm lands and water sources for the production of fuels for cars is plainly irresponsible.*

"...In particular, we deeply oppose "irrational" deforestation, like the one made for producing *bio-fuels*: probably, the environmental impact of cleaning forest to give space to "palm oil" for bio-fuels production is hundred times greater than simply using mineral petroleum."

Oliver Tickell, The Ecologist, Operational Editor,
Interview with LTEconomy (December 2013, www.lteconomy.it/en)

*Annex - Italy's National Action Plan for Renewable Energy: What implications for Land Grabbing in Africa?*¹¹

The Italian state has earmarked 200 billion euros as incentives for the production of electricity from renewable sources over the next 20 years (2013-2032).

To implement the 1997 Kyoto Protocol, the European Parliament and Council approved in 2009 the Directive 2009/28/EC on the promotion of energy from renewable sources. This directive set two binding targets for 2020. The first was to reach 20% of the EU's energy consumption from

⁹ See the list of Land Grabbing for Jatropha at <http://www.grain.org/article/entries/4653-land-grabbing-for-biofuels-must-stop>

¹⁰ Potsdam Institute for Climate Impact Research and Climate Analytics, "Turn Down the Heat: Why a 4°C Warmer World Must be Avoided", a report for the World Bank, November 2012.

¹¹ For more details on this topic see GRAIN's article: "Who is behind Senhuile-Senethanol?" <http://www.grain.org/article/entries/4815-who-is-behind-senhuile-senethanol>

renewable sources, allowing each Member State to fix their specific national target (17% in the case of Italy). The second was to reach 10% of the EU's transport energy consumption from renewable sources (biofuels). As required by the Directive, in July 2010, Italy notified the European Commission of its "National Action Plan for Renewable Energies", which was set into national law through Legislative Decree No. 28 of 2011.

In this context, since 2007-2008 more than 20 Italian companies have laid their eyes on hundreds of thousands of hectares of agricultural land all over the globe, mostly in Africa.

Table 1 - Italian land grabs for biofuels in Africa Target country

	Company	Planned investment (US\$ min)	Planned land area (ha)	Crop
Algeria, Cameroon, Egypt, Equatorial Guinea, Ghana, Morocco, Mozambique, Senegal, Togo	Agroils		250,000	jatropha, rapeseed, sunflower
Angola	ENI	350	12,000	oil palm
Benin	Green Waves		250,000	sunflower
Congo Brazzaville	ENI	350	70,000	oil palm
Congo Brazzaville	Fri-EL Green Power		40,000	oil palm
Ethiopia	Fri-El Green Power	7.2	30,000	jatropha, oil palm
Ethiopia	Nuove Iniziative Industriali		40,000	jatropha
Guinea	Nuove Iniziative Industriali		710,000	jatropha
Kenya	Nuove Iniziative Industriali		50,000	jatropha
Madagascar	TRE-Tozzi Renewable Energy	300	100,000	jatropha
Madagascar	Delta Petroli	70	30,000	jatropha
Madagascar	Troiani & Ciarocchi		100,000	jatropha
Mozambique	Aviathrough Aviam Ltd	16	10,000	jatropha
Mozambique	Seci Api Biomasse	15	6,300	jatropha
Mozambique	Bioenergy Italia SpA	20	120	jatropha
Mozambique	Moncada Energy Group Srl	27	15,000	jatropha
Mozambique	Moncada + Petromoc	15	10,000	
Mozambique	MedEnergy Global	85	10,000	oil palm
Mozambique	Società Fondiaria Industriale Romagnola	60	8,600	sugar cane
Mozambique, Sierra Leone	CIR Group	4	45,000	oil palm
Nigeria	Fri-EL Green Power		100,000	oil palm
Senegal	Nuove Iniziative Industriali		50,000	jatropha
Total		970	1,987,020	

Source: GRAIN

4. The Calabar Declaration: an agreement against the expansion of Oil Palm Plantations

Members of communities affected by industrial monoculture oil palm plantations, including peasant movements, as well as other civil society organisations from Africa, Europe, the Americas and Asia, met from 2-5 November 2013 in Calabar, Cross River State, Nigeria to sign the following declaration:¹²

¹² See the entire article at GRAIN website: <http://www.grain.org/article/entries/4831-the-calabar-declaration>

Having:

- Shared testimonies and analyses related to the living conditions of rural communities affected by industrial oil palm monocultures;
- Shared experiences on monoculture oil palm and other types of monocultures implemented in all countries present at the meeting;
- Analysed the consequences of the rapid and brutal expansion of monocultures promoted by multinational companies in different communities and countries;
- Analysed the strategies and mechanisms for Land Grabbing and the invasion of multinational companies into different communities;

Having found that:

- Where multinational companies have engaged in implementing large-scale monocultures, they have left misery and poverty;
- Governments, on all continents, provide support to these companies, and many among them profit from the misery of their compatriots;
- Thousands of hectares of forest are destroyed every day to the benefit of monocultures, including oil palm;
- Communities are dispossessed of their land to the benefit of multinational corporations or speculative investors who manipulate governments, the police, or the entire judicial system of the countries they enter;
- Hundreds of people are imprisoned or killed every year for demanding their right to land, livelihoods and survival; and their lands, once transformed into monocultures, are militarised;
- Peasants are forced to work in slave conditions on their own land and buy food that once they produced;
- Voluntary initiatives and certification schemes such as RSPO (Roundtable on Sustainable Palm Oil) and REDD (Reducing Emissions from Deforestation and Forest Degradation) are inadequate to provide lasting solutions for the problems they claim to resolve;
- Conventions and legislation guaranteeing community rights are often violated by the different states in the slashing and grabbing of communities' land;

Considering that:

- Monoculture tree plantations are not forests;
- Communities are not objects that can be moved or manipulated at will;
- Communities have the right to dignity and to raise their voice;
- The RSPO is not a mechanism to halt the massive expansion of monoculture oil palm plantations and the ever-increasing demand for palm oil to meet excessive consumption, including for agrofuels. Also REDD is not a mechanism to solve the impacts of climate change.

Reaffirm:

- Our support for all communities repressed by the policies of the powerful and to those who defend their land rights as indigenous peoples and peasant communities;
- Our commitment to demand that the governments of our countries ratify and respect the declarations and relevant international laws that protect the rights of communities and indigenous peoples;
- Our opposition to land and forest grabbing for monocultures and other projects including REDD;
- Our appeal to our governments to halt and control the expansion of large-scale monocultures, and to support community- based, including traditional, economic activities.
- Our determination to fight for food sovereignty and food security of communities;
- Our commitment to build alternative and appropriate solutions that go beyond mechanisms like RSPO and REDD;
- Our commitment to save the environment instead of having it transformed into hell on earth;
- Our commitment to be the voice of the voiceless wherever their voice needs to be heard;
- Our commitment to use all non-violent means necessary so that community rights are respected.

Signatures:

African Dignity Foundation – Nigeria

Boki Rainforest Conservation & Human Development Concern – Nigeria

Climate Cool Nigeria

Community Forest Watch Nigeria

RRDC (Rainforest Resource and Development Centre) – Nigeria

[ERA/Friends of the Earth](#) – Nigeria

[GREENCODE \(Green Concerns for Development\)](#) – Nigeria

[IVE \(Jeunes Volontaires pour l'Environnement\)](#) - Côte d'Ivoire
[Brainforest](#) - Gabon
[Green Scenery](#) - Sierra Leone
[SDI \(Sustainable Development Institute\)](#) - Liberia
 FCI (Foundation for Community Initiatives) - Liberia
[GRABE](#) - Benin
 COPACO (Confédération Paysanne du Congo DRC) and La Via Campesina Africa
[FERN](#) - UK
 Green Development Advocates - Cameroon
 Struggle to Economize Future Environment-SEFE - Cameroon
[WALHI](#) - Indonesia
[SPI](#) - Indonesia
[GRAIN](#)
[WRM](#)

In synthesis in the Calabar declarations, the signers **confirm** that “Land Grabbing” and the diffusion of monocultures at the expense of local communities are very dangerous and brings *misery and poverty*; such a phenomena is *supported by governments* and often implies the *destruction of thousands of hectares of forests*. In particular, *local communities are often dispossessed of their land, without a transparent process, to the benefits of big multinationals*, and people who demand their right to land are often imprisoned. Moreover, where Land Grabbing occurs, *peasants are forced to work in slave conditions on their own land and buy food that once they produced*; initiatives such as the RSPO (Roundtable on Sustainable Palm Oil) and REDD (Reducing Emissions from Deforestation and Forest Degradation) are *inadequate* to provide lasting solutions for the problems they claim to resolve; finally, conventions and legislation guaranteeing community rights are often violated. Said that, the signers of the Calabar declaration **reaffirm**: *their support to local communities in their fighting for land rights, their commitment in demanding government to ratify declarations an international laws that protect the rights of communities and indigenous peoples, their opposition to land and forest grabbing for monocultures, their appeal to their governments to halt and control the expansion of large-scale monocultures, their commitment to build alternative and appropriate solutions that go beyond mechanisms like RSPO and REDD, their commitment to save the environment, their commitment to use all non-violent means necessary so that community rights are respected.*

5. What is “Food Sovereignty”? - Land Grabbing and “Food Sovereignty” in West and Central Africa¹³

What is food sovereignty and why Land Grabbing violates it?

Food sovereignty is a concept developed by “Via Campesina” (an international farmers organization) in 1996 as an alternative to neoliberal policies and the industrial model of production. It signifies *the right of peoples, nations, or unions of nations to define their agricultural and food policies* without outside interference, and is inclusive of all stakeholders concerned by the food question.

¹³ For more details on this subject see the following article by GRAIN: “Land grabbing and food sovereignty in West and Central Africa”, 19 September 2012, <http://www.grain.org/article/entries/4575-land-grabbing-and-food-sovereignty-in-west-and-central-africa>

"Food Sovereignty includes:

- *prioritising local agricultural production in order to feed the people, access of peasants and landless people to land, water, seeds, and credit.* Hence the need for land reforms, for fighting against GMOs (Genetically Modified Organisms), for free access to seeds, and for safeguarding water as a public good to be sustainably distributed;
- *the right of farmers (and) peasants to produce food and the right of consumers to be able to decide what they consume, and how and by whom it is produced;*
- *agricultural prices linked to production costs:* they can be achieved if the countries or unions of states are entitled to impose taxes on excessively cheap imports, if they commit themselves in favour of a sustainable farm production, and if they control production on the inner market so as to avoid structural surpluses;
- *the populations taking part in the agricultural policy choices;*
- *the recognition of women farmers' rights, who play a major role in agricultural production and in food."*

-
La Via Campesina, Porto-Alegre, 2003

The possibility of any of the above goals being realised is threatened by Land Grabbing, since the land in question is almost always put into industrial agriculture, regardless of whether it's foreign or domestic interests doing the grabbing. In the following box there are *some examples of Land Grabbing in West and Central Africa.*

Some examples of Land Grabbing in West and Central Africa

- **In Cameroon**, in 2006, a subsidiary of the *Shaanxi Land Reclamation General Corporation* (a.k.a Shaanxi State Farm) named *IKO* signed a **US \$120 million investment agreement** with the government of Cameroon, thereby *acquiring the Nanga-Eboko rice farm and a 99-year lease on a further 10,000 hectares*, including 2,000 ha in Nanga-Eboko (near the rice farm), and 4,000 ha in the neighboring district of Ndjoré.
- **In Guinée**, the American corporation *Farm Lands of Guinea Inc (FLGI)* controls over 100,000 ha that it uses to produce *corn* and *soy* for exports or agro-fuels production. In addition, FLGI has been entrusted by the government with prospecting for an additional 1.5 million hectares to lease to other investors – a contract on which it earns a 15% commission.
- **In Côte d'Ivoire**, *SIFCA* has 47,000 ha of *oil palm* and *sugarcane* plantations. In 2007, *Wilmar and Olam* (Singapore-based agribusiness trans-nationals) created a joint venture, *Nauvu*, to acquire a 27% stake in *SIFCA*, the country's largest sugarcane and oil palm producer.
- **In Sierra Leone** in 2010, the Swiss firm *Addax* took control of 10,000 ha to produce *sugarcane* for ethanol starting in 2013. In 2011, *SOCFIN*, a subsidiary of the French *Bolloré* group, rented 12,500 ha for *oil palm* production. Vietnamese firms are getting ready to launch major rice and rubber projects, which will obtain Chinese financial backing in 2012.
- **In Senegal**, *Saudi Arabia* is growing *rice* to take home to its own citizens, while an Italian firm is producing biofuel for European exports. International investment company *Foras* is involved in a major rice production project and is also setting up vertically integrated poultry production near Dakar, with a projected capacity of 4.8 million birds per year.
- **In Mali**, *Libya and Saudi Arabia* are growing *rice* for exports as well as *sunflower* and *jatropha* for agro-fuels. The *Libyan deals* include one signed in May 2008 by the Qaddafi and Malian governments giving *Malibya*, a subsidiary of the *Libya Africa Investment Portfolio*, a renewable 50-year lease on 100,000 ha of land in the territory governed by the Office du Niger. As for *Saudi Arabia*, *Foras* has completed a pilot study on 5,000 ha obtained as part of a long-term lease in the area governed by the Office du Niger. *Foras* wants to expand this to 50,000-100,000 ha, the first stage in an even larger project aiming to produce rice on 700,000 ha in various African countries.

- **In Congo**, South African groups are growing *rice*, *corn*, and *soy*, some of which goes to feed poultry. "Congo Agriculture" is a corporation set up by South African agribusiness interests to establish large-scale farms in Congo-Brazzaville. The corporation obtained 80,000 ha from the government under a 30-year lease, 48,000 of this in the district of Malolo. In December 2010, Agence France Presse reported that the government of Congo-Brazzaville had signed an agreement with *Atama Plantation*, a Malaysian company, granting concessions on a total of 470,000 ha in the northern region of La Cuvette and the northwestern region of Sangha. Atama has announced its intention to grow *oil palm* on 180,000 ha under these concessions.
- **In the Democratic Republic of Congo**, *oil palm* is being grown for biodiesel.
- **In Gabon**, foreign investors are growing *rice* for export to Persian Gulf countries, while *oil palm* for biodiesel is being grown on behalf of Singapore.
- **In Benin**, Chinese interests are growing *vegetables*, *corn*, and *sugarcane* for exports to the home country, according to Bodéa Simon, Administrative Secretary of Synergie Paysanne. China National Complete Import and Export Corporation Group (COMPLANT) operated as a Chinese foreign aid office until 1993; today, it is traded on the Shenzhen Stock Exchange and its main shareholder is the State Development & Investment Corporation, the largest state-owned holding company in China. In 2010, a subsidiary of COMPLANT named Hua Lien International announced its intention to set up a US \$5 billion venture with COMPLANT and the China-Africa Development Fund to implement ethanol production in several African countries.

Target Country	Investor Country	Main companies involved	Amount of land involved	Object of production
Cameroon		Shaanxi Land Reclamation General Corporation	10,000 hectares in Nanga-Eboko and 4,000 ha in the district of Ndjoré.	- rice
Guinée	U.S.	Farm Lands of Guinea Inc (FLGI)	100,000 ha	- corn and soy for exports or agro-fuels production
Côte d'Ivoire	Singapore	Wilmar and Olam through SIFCA	47,000 ha	- oil palm and sugarcane plantations
Sierra Leone	Switzerland, France	Addax, SOCFIN, a subsidiary of the French Bolloré group	10,000 ha 12,500 ha	- sugarcane for ethanol - oil palm production
Senegal	Saudi Arabia, Italy	Foras (not totally)		- rice to take home to its own citizens - bio-fuels - rice
Mali	Libya and Saudi Arabia		100,000 ha 5,000 ha	- rice for exports as well as sunflower and jatropha for agro-fuels
Congo	South Africa, Malaysia	Congo Agriculture (S.Africa), Atama Plantation (Malaysia)	80,000 ha 470,000 ha	- rice, corn, and soy, some of which goes to feed poultry - oil-palm
Gabon	Persian Gulf countries, Singapore			- rice for export to Persian Gulf countries - oil-palm for biodiesel is being grown on behalf of Singapore.
Benin	China	China National Complete Import and Export Corporation Group (COMPLANT)		- vegetables, corn, and sugarcane for exports to the home country

Source: LTEconomy on GRAIN

Summing up, in general, these investments are characterized by *discretion or even secrecy*, since the subject is politically and socially sensitive. Of the 416 cases of Land Grabbing identified at the time the article went to press¹⁴, 228 were in Africa. Some commentators have claimed that these contracts are "win-win," in that they are designed to protect cash flows and the agricultural model they perpetuate. For others, Land Grabbing is clearly being done against the interests of local people. Therefore, they mobilize resistance against it, putting forward food sovereignty as the real solution to the food crisis.

¹⁴ 19 September 2012

Table - Percentage of farmland controlled by foreign agri-food interests in West and Central Africa	
Country	Land area leased or sold to foreign investors for agri-food production
Benin	236,100 ha
Gabon	415,000 ha
Ghana	907,000 ha
Guinée	1,608,215 ha
Liberia	1,737,000 ha
Mali	372,167 ha
Nigeria	542,500 ha
Republic of Congo	670,000 ha
Dem. Republic of Congo	401,000 ha
Senegal	460,000 ha
Sierra Leone	501,250 ha

* Land agreements with foreign investors as a percentage of country's agricultural land area (FAO figures for 2009), where "arable land" means areas used for temporary cropping, temporary pastureland, market gardens, family gardens, and temporary fallows; "farmland" includes arable land, permanent cropland, and permanent pastureland; and "total area" means the total area of the country, including internal waterways but not coastal waters. Figures are rounded.

Source: GRAIN

6. Policies against Land Grabbing: the real effects of "Land ceilings"

Over the last few years, governments, legislators and political elites in a number of countries have been trying to calm anger and debate over Land Grabbing by setting legal limits on foreign direct investment (FDI) in land. These limits take various forms:¹⁵

- In some countries, governments are imposing *ceilings* on the amount of farmland foreigners may acquire. *Argentina* and *Brazil* have recently moved in this direction.
- In other countries, political leaders are introducing *bans* on foreigners getting farmland. The president of *Hungary* recently pushed a decree through parliament which states that foreigners will not be allowed to buy land when a moratorium on land sales to foreigners is lifted in 2014.
- Elsewhere, *other kinds of restrictions* are being set up. In *Algeria*, where the state owns much of the land, a new law was recently adopted to introduce more private ownership of agricultural land. Foreigners, however, will not be allowed to acquire farmland except as *minority shareholders*, in partnership with domestic firms. This same kind of limitation was included in the *Democratic Republic of Congo's* 2012 land code.

Why may such restrictions be ineffective?

Will these restrictions make a difference, especially for small-scale food producers struggling to feed their families and communities? It is unlikely, for a number of reasons:

- **Ownership versus rent:** In many cases, the restrictions being set up *apply only to the purchase of land*. Investors can easily shift to other forms of control over land for their projects, such as *leases or concessions*. Even if and when consent comes into play, a long-term

¹⁵ To find out more on this topic see GRAIN's article: "Land ceilings: reining in land grabbers or dumbing down the debate?" at <http://www.grain.org/article/entries/4655-land-ceilings-reining-in-land-grabbers-or-dumbing-down-the-debate>

lease, which could span several generations of a community's life, has the same impact as a permanent transfer of ownership. Politicians are playing a game with words, saying they are addressing the problem (by restricting ownership) when they are not (by allowing long-term leases).

- **Foreigners can hide behind nationals:** For larger deals, foreign companies can *open up domestic subsidiaries or shell companies*, or go into a *joint venture* with local companies and appear as a national entity. Such practices are widespread, from *Thailand* (where it is called the nominee system) to Brazil (where the front entity is called an orange). These practices are not necessarily illegal, but they do mean that laws clamping down on "foreign" ownership may not have a huge impact.
- **Restrictions on investment can hijack the debate:** In many cases where political elites seek to introduce limits on foreign investors as a way of controlling land grabbing – usually with a lot of nationalistic or pro-sovereignty flair – they can actually *reduce the debate at the national level* to one of "foreigner = bad", while *evading the more fundamental question of what kind of agriculture, food security or rural livelihoods strategy* is being promoted and supported.

Limiting foreign direct investment in land is not a bad thing as such. But it would be better to take *a more holistic approach* and come up with new land policies within a broader recasting of agricultural and rural development strategies that include *genuine agrarian reform programmes* oriented toward *food sovereignty*.

7. Some recent news on Land Grabbing

Karuturi, the iconic land-grabber, flops

Karuturi Ltd, the Kenyan flower production unit of Karuturi Global, is in *financial collapse* and been put under receivership. This is one of the case that better explain the negative points behind the "Land Grabbing" phenomenon.

Karuturi Ltd, has stopped paying its workers and suppliers since many months. So on 11 February 2014, *CfC Stanbic Bank* in Nairobi took over the Karuturi farm in Naivasha. The new managers will assess the true financial situation of the firm, and settle the company's outstanding debts, which reportedly exceed *US\$ 5 million*. Until now, the flower farm in Naivasha was responsible for *three-quarters* of the Karuturi's annual global earnings.

Bangalore-based Karuturi Global Ltd is one of the largest foreign agribusiness conglomerates in Africa. *In 2007*, it began expanding its operations to *Kenya* and *Ethiopia* to take advantage of generous tax breaks and cheap land, water and labour. *It soon became the world's largest cut rose exporter*. Now, this leading example of foreign direct investment in African agriculture is on the verge of collapse, and Africans are paying the price. Karuturi workers and their children are not the only portion of the Kenian population that are paying the consequences of such a collapse: Karuturi owes the Kenyan government millions of US dollars in unpaid taxes.

On the other hand, in *Ethiopia*, the Anywaa and other communities that were violently displaced from their lands without consultation to make way for Karuturi's farming operations have lost their livelihoods and been living in exile without proper compensation.

In conclusion, international community must stop their “not questionable” support to such egregious corporate in the name of "foreign investment", or "development", as, in the case of Karaturi, who benefited more from the investment were Karatury’s owners, while local population directly or indirectly are suffering for the insane and unfair use of their lands.

Sierra Leone farmers reject land grab for oil palm plantation

Pujehun District, in southeastern Sierra Leone, was badly affected by the civil war which ended in 2002. Today, the district is one of several parts of the country where the government is seeking to attract foreign investment to set up industrial oil palm plantations. *But local communities are rejecting the handing over of large tracts of land to foreign companies.*

Two companies – *Socfin*, the local subsidiary of a Luxembourg-headquartered corporation controlled by the *Bolloré group*, and India-based *Siva Group/Biopalm Star Oil* – have between them acquired rights to an area of nearly 90,000 hectares across five chiefdoms in the district.

The affected villagers say no proper consultations were held to enable community members to understand the deal before they were required to sign documents, and many are refusing to give up their lands.

Stolen land: Nigerian villagers want their land back from Wilmar

There is a struggle between the **Ekong Anaku Village**, in southeastern Nigeria, and *Wilmar International* over a land of 10,000 ha.

The *Ekong Anaku Village* in southeastern Nigeria lies in one of the countries' few remaining tropical rainforests. Conservation groups and the federal government wanted it conserved as a *reserve*. The villagers were keen for the extra protection against illegal logging, but they were worried about losing access to the *hunting, foods and medicines the forest provides* them and to lands that future generations would need for farming. So in 1992 they made a *deal with the government*. They agreed to allow the conversion of a 10,000 ha section of their traditional forest into a reserve. In exchange, the government promised to provide programmes for agroforestry and rural development and credit for small farms and businesses.

Ten years after, however, the governor of Cross River State gifted the same lands to a company owned by Nigeria's president at the time, *Olusegun Obasanjo*, who planned to convert the 10,000 ha of forest into a *large scale oil palm plantation*. It lacked the capacity, and in 2011 sold the lands (acquired for free) to **Wilmar International**, which controls 45 percent of global production of palm oil. With the support of the *Rainforest Resource Development Centre (RRDC)*, the *Ekong Anaku villagers have been fighting to get their lands back* ever since. Wilmar, however, has already established a large oil palm nursery and has cleared some lands for planting.

The villagers are open to developing *some form of partnership with Wilmar* on the existing plantation lands. According to *Linus Orok*, one of the resident interviewed, the villagers have three basic demands: the existing plantation must be operated as a *partnership*; there can be *no expansion*

beyond the areas that have already been cleared for planting; and, the government must identify and provide the village with *an alternative area of land of equal size where they can farm*.

Even if the communities do succeed in getting some form of partnership with Wilmar, *there's no guarantee that they will benefit from it* (see the [documentary film on Wilmar's operations in Uganda](#)).

Leaked ProSAVANA Master Plan confirms worst fears

ProSAVANA is a programme between **Japan, Brazil and Mozambique** to support agricultural development in Northern Mozambique. According to the copy of the Master Plan leaked to civil society on April 2013, the programme will cover an area of over *10 million hectares* in 19 districts within 3 provinces of Northern Mozambique - Nampula, Niassa, and Zambézia. Over *4 million people* live and farm in this area, which has been dubbed the *Nacala Corridor*.

The entire process of developing the ProSavana programme and its Master Plan has been characterised by *a complete lack of transparency, public consultation and public participation*. While agribusiness corporations have been part of government delegations to investigate business opportunities in the Nacala Corridor, the 4 million farmers living in the affected area have received no information about the intentions shown in the Master Plan.

ProSAVANA is presented as a development/aid programme but the leaked version of the Master Plan makes it clear that it is simply a business plan for the corporate takeover of agriculture in Mozambique. This boils down to two main directives:

1. **Push farmers out of traditional shifting cultivation** and land management practices into intensive cultivation practices based on commercial seeds, chemical inputs and private land titles. It is clear that the real objective behind these efforts to push farmers into intensive cultivation is to *privatise the land and make it more available to outside investors*. It also allows investors to bypass negotiations with communities to access lands. It is also described as a means to "create an environment of cooperation and integration between the small scale farm and new investors."
2. **Push farmers into contract farming arrangements with corporate farms and processors:** the Master Plan divides the Nacala Corridor into zones, and defines which crops should be grown in these zones, where and how they should be grown, and by whom they should be grown (small farmers, medium farmers or corporations). Within these zones, the plan lays out several projects for the production of commodities, *some of them based exclusively on large corporate farms*, others based on a mix of large or medium farms and contract production arrangements with small farmers. *Some of the projects within the plan will provide large areas of land to investors. Corporations will benefit from several Special Economic Zones (SEZs) that are proposed in the plan. In these zones, companies will be free from paying taxes and customs duties and will be able to benefit from offshore financial arrangements.*

Since the planning for ProSAVANA began in 2009, many foreign investors and their local partners have already acquired large parcels of land in the programme area, leading to numerous conflicts over land with local communities.

In conclusion, the Master Plan, in its current form, *would destroy peasant agriculture by wiping out farmer seed systems, local knowledge, local food cultures and traditional systems of land management.* It will displace peasants from their lands or force them on to fixed parcels of land where they will be obliged to produce under contract production for corporations and to go into debt to pay for the seeds, fertilisers and pesticides required. It is telling that only one of the seven clusters in the Master Plan is aimed at small scale farmers and family food production. *Corporations are the big beneficiaries of this Master Plan.* They will get control over land and production and they will control the trade of the foods produced, which will be exported along the roads, rail lines and Nacala port that other foreign corporations will be paid to construct with public funds from Mozambique and Japan. Foreign seed, pesticide and fertiliser companies will also make a killing from this massive expansion of industrial agriculture into Africa.

Conclusions

As foreign governments and corporations lease and purchase large tracts of arable land across the globe, in Africa, such large-scale land acquisitions or 'land grabs' have allegedly provided the grievance behind protests, riots, coups, and other conflict from Mali to Madagascar. People want their land back. Any aid or investment from abroad must respect local wellness without damaging traditions and culture. Land Grabbing will only increase the severity of the current climate, ecological, food and migration crisis. Thanks to much to GRAIN for its work on this topic!

BIBLIOGRAPHY

Allan T., (2012), "Can Improving Returns to Food-Water in Africa Meet African Food Needs and the Needs of other Consumers?", In *Handbook of Land and Water Grabs in Africa*, a cura di T.Allan, Londra, Routledge.

Assadourian Erik, (2012), "The Path to Degrowth in Overdeveloped Countries", in *State of the World 2012. Moving Toward Sustainable Prosperity*, The Worldwatch Institute.

Baudrillard Jean, (1976), *La società dei consumi. I suoi limiti e le sue strutture*, Bologna.

BBC, (January, 2012), "Ethiopia forces thousands off land - Human Rights Watch."
<http://www.bbc.co.uk/news/world-africa-16590416>

De Castro P., (2011), *Corsa alla terra*, Roma, Donzelli.

Deininger K., Byerlee D., (2011), *Rising Interest in Global Farmland: Can It Yield Sustainable and Equitable Benefits?*, Washington, World Bank.

FAO, Food Price Index data.
<http://www.fao.org/worldfoodsituation/foodpricesindex/en/>

FAO, (2011), *Global food losses and food waste*.
<http://www.fao.org/docrep/014/mb060e/mb060e00.htm>

FAO,(2009), *The Resource Outlook to 2050: By how much do land, water and crop yields need to increase by 2050?* FAO Expert Meeting: "How to Feed the World in 2050", FAO, Rome, Italy.

Farmlandgrab, (May 2014), "New Alliance for Food Security and Nutrition in Africa raises concerns."
<http://farmlandgrab.org/post/view/23511-new-alliance-for-food-security-and-nutrition-in-africa-raises-concerns>

Farmlandgrab, (May 2014), "Protecting water and land from grabbers. For a new water ethic."
<http://farmlandgrab.org/post/view/23505-protecting-water-and-land-from-grabbers-for-a-new-water-ethic>

Farmlandgrab, (May 2014), "Small community in Liberia stands strong against land grabbing."
<http://farmlandgrab.org/post/view/23503-small-community-in-liberia-stands-strong-against-land-grabbing>

Farmlandgrab, (May 2014), "Anti SAVANA: A program that could affect the lives of millions of peasants in Mozambique."
<http://farmlandgrab.org/post/view/23500-anti-savana-a-program-that-could-affect-the-lives-of-millions-of-peasants-in-mozambique>

Fotopoulos Takis, (1999), *Per una democrazia globale*, Elèuthera, Milano.

Gorz André, (1992), *Capitalismo, socialismo, ecologia. Orientamenti, disorientamenti*, Roma.

GRAIN, (February 2014), "Karuturi, the iconic landgrabber, flops."
<http://www.grain.org/article/entries/4885-karuturi-the-iconic-landgrabber-flops>

GRAIN, (January 2014), "Sierra Leone farmers reject land grab for oil palm plantation."
<http://www.grain.org/article/entries/4849-sierra-leone-farmers-reject-land-grab-for-oil-palm-plantation>

GRAIN, (December 2013), "Stolen land: Nigerian villagers want their land back from Wilmar."
<http://www.grain.org/article/entries/4844-stolen-land-nigerian-villagers-want-their-land-back-from-wilmar>

GRAIN, (November 2013), "Who is behind Senhuile-Senethanol?"

<http://www.grain.org/article/entries/4815-who-is-behind-senhuile-senethanol>

GRAIN, (November 2013), "The Calabar Declaration."

<http://www.grain.org/article/entries/4831-the-calabar-declaration>

GRAIN, (April 2013), "Ugandan schoolboys reflect on land grabbing."

<http://www.grain.org/article/entries/4702-ugandan-schoolboys-reflect-on-landgrabbing>

GRAIN, (April 2013), "Leaked ProSAVANA Master Plan confirms worst fears."

<http://www.grain.org/article/entries/4703-leaked-prosavana-master-plan-confirms-worst-fears>

GRAIN, (February 2013), "Land grabbing for biofuels must stop."

<http://www.grain.org/article/entries/4653-land-grabbing-for-biofuels-must-stop>

GRAIN, (February 2013), "Land ceilings: reining in land grabbers or dumbing down the debate?"

<http://www.grain.org/article/entries/4655-land-ceilings-reining-in-land-grabbers-or-dumbing-down-the-debate>

GRAIN, (September 2012) "Land grabbing and food sovereignty in West and Central Africa."

<http://www.grain.org/article/entries/4575-land-grabbing-and-food-sovereignty-in-west-and-central-africa>

Human Right Watch, (January, 2012), "Ethiopia forces thousands off land - Human Rights Watch."

<http://www.hrw.org/news/2012/01/16/ethiopia-forced-relocations-bring-hunger-hardship>

International Land Coalition, (January 2012), *Land rights and the Rush for Land*.

http://www.landcoalition.org/sites/default/files/publication/1205/ILC%20GSR%20report_ENG.pdf

Jackson Tim, (201), *Prosperità senza crescita. Economia per il pianeta reale*, Ambiente, Milano.

Klein Naomi, (2008), *Shock economy. L'ascesa del capitalismo dei disastri*, Rizzoli, Milano.

Land Matrix, Land Grabbing data.

<http://www.landmatrix.org/en/>

Latouche Serge, (2012), *Per un abbondanza frugale. Malintesi e controversie sulla decrescita*, Bollati Boringhieri, Torino, (titolo originale: *Vers une société d'abondance frugale. Contresens et controverses sur la décroissance*).

La Via Campesina, (February 2014), *2013 Annual Report*.

<http://viacampesina.org/en/index.php/publications-mainmenu-30>

La Via Campesina, (November 2013), *Seeds and Peasant autonomy*.

<http://viacampesina.org/en/index.php/publications-mainmenu-30>

La Via Campesina, (July 2013), *From Maputo to Jakarta : 5 Years of Agroecology in La Via Campesina*.

<http://viacampesina.org/en/index.php/publications-mainmenu-30>

La Via Campesina, (June 2013), *Land is life*.

<http://viacampesina.org/en/index.php/publications-mainmenu-30>

La Via Campesina, (2012), *Revisiting Vietnam Rice : moving towards industrialization*.

<http://viacampesina.org/en/index.php/publications-mainmenu-30>

LTEconomy, (May 2014), *Seed rights*, Interview with Pat Mooney, (ETC Group, founder) ([Link](#)).

LTEconomy, (May 2014), *Seed rights*, Interview with Giuseppe Li Rosi, (Sicilian Farmer, Terre Frumentarie) ([Link](#)).

LTEconomy, (April 2014), *Seed rights* Interview with Ramòn Vera Herrera, (General Director of the magazine "Biodiversidad") ([Link](#)).

LTEconomy, (April 2014), *Land Grabbing*, Interview with Henk Hobbelink,(GRAIN, founder) ([Link](#)).

LTEconomy, (February 2014), "Focus - Why growth cannot last indefinitely", ([Link](#)).

LTEconomy, (December 2013), *Degrowth*, Interview with Erik Assadourian,(Research-Director at the Worldwatch Institute) ([Link](#)).

LTEconomy, (June 2013), "Focus - All about food losses ", ([Link](#)).

LTEconomy, (May 2013), *Permaculture*, Interview with David Holmgren (Permaculture, co-founder; Holmgren Design Services, President), ([Link](#)).

LTEconomy, (February 2013), "Focus: all about the Ecological Footprint", ([Link](#)).

LTEconomy, (February 2013), *Ecological Footprint*, Interview with Mathis Wackernagel, (Global Footprint Network, President), ([Link](#)).

Masullo Andrea, (1998), *Il pianeta di tutti. Vivere nei limiti perché la terra abbia un futuro*, EMI, Bologna.

Pallante Maurizio, (2011), *La decrescita felice*, GEI Gruppo editoriale italiano s.r.l., Roma.

Stop Africa Land Grab, "The African People's Land Grab Declaration."
<http://www.stopafricalandgrab.com/add-your-name-to-the-declaration/>

The Worldwatch Institute, (2013), *State of the World 2013: Is Sustainability Still Possible?*

Times of India, (May 2014), "Land grab in Chandigarh's periphery : High court appoints amicus curiae."

UNCTAD, (2013), *Trade and Environment Review 2013*.
<http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=666>

UNEP, (2009), *Towards sustainable production and use of resources: assessing biofuels*.
http://www.unep.org/pdf/assessing_biofuels.pdf

Vandana Shiva, (2014), "Small is the new big", *Reurgence & Ecologist*, March-April 2014.

World Economic Forum, (2013), *Global Risk 2013*, Switzerland.

LINKS

Stop Africa Land Grab - <http://www.stopafricalandgrab.com/>

Et maintenant nos terres - http://www.maintenantnosterres.com/index_EN.html

Global Footprint Network - <http://www.footprintnetwork.org/en/index.php/GFN/>

FAO - <http://www.fao.org/home/en/>

International Land Coalition - <http://www.landcoalition.org/>

UNEP - <http://www.unep.org/>

Land Matrix - <http://www.landmatrix.org/en/>

La Via Campesina - <http://viacampesina.org/en/>

Oxfam - <http://www.oxfam.org/en/grow/landgrabs>

Farmland Grab - <http://farmlandgrab.org/>

Transnational Institute - <http://www.tni.org/category/tags/land-grabbing>



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Interview with Henk Hobbelink Interview with Henk Hobbelink

(*GRAIN*, Co-founder and Coordinator; <http://www.grain.org/>)



Henk Hobbelink: *Henk* is an agronomist by training. In the 1980s he worked with farmers in Peru on sustainable pest management and after that he worked with Dutch and European NGOs drawing attention to the importance of agricultural biodiversity for the future of farming. In 1990, he co-founded *GRAIN*, and over the past two decades has helped the organization grow into an international collective that works to support small farmers and social movements in their struggles for community-controlled and biodiversity-based food systems. *Henk* is the coordinator of *GRAIN*, and as such is responsible for the overall functioning of the organization as well as conducting research, writing and outreach activities.

GRAIN: *GRAIN* is a small international non-profit organization that works to support small farmers and social movements in their struggles for community controlled and biodiversity-based food systems. *GRAIN*' support takes the form of independent research and analysis, networking at the local, regional and international levels, and active cooperation and alliance-building with social movements. For more than 20 years, *GRAIN* has been an active player in the global movement to challenge corporate power over people's food and livelihoods.

Interview with Henk Hobbelink

Question 1: You are the co-founder of GRAIN. Can you explain *what is GRAIN's mission*, what are *the topics* it is currently more focusing on, and, finally, *in which way it carries out its mission?*

Answer:

GRAIN was founded about 20 years ago in response to some negative events which were badly affecting the shape of the global food system: 20 years back, some large corporations started their campaign to take control over the world seed supply; but, more importantly, as small farmers were losing centrality in the food system and transnational industries were gaining power, the sustainability of the global food supply (especially in terms of biodiversity, local nutrition and land fertility) was seriously at risk. Said that, currently, GRAIN is focusing on four main issues. The first one is to look at the role (and the impact) of *multinational corporations* in the food supply. The second one is to monitor (and face) the phenomena of “*Land Grabbing*”. Another issue concerns “*seed diversity*”; it is very important for peasant farmers and the world food supply, but now seed diversity is disappearing and progressively controlled by a handful of multinationals; GRAIN strongly supports groups which fight against the privatization of seed production and, at the same time, proposes alternative sustainable system for the seed market. Finally, the fourth area GRAIN is working on is *the link between the food system and climate change*: the food system has become the major contributor to the climate crisis; [GRAIN's researchers calculated](#) that between 44% and 57% of all the greenhouse emissions come from the food system today; this is because it makes an intensive use of chemicals (pesticides and fertilizers) and is responsible for most of the deforestation; but a great chunk of emissions comes also from a massive use of Transportation: in the international food system that has been created, the food must be transported and frozen, causing more pollution and CO2 emissions.

GRAIN is a very small (10 people) and decentralized organization: most of its people and collaborators live and work in different countries around the globe (Africa, Asia, America and Europe) and closely collaborate with local social organizations. In that sense GRAIN is a “networking organization”. In practical terms, GRAIN pursues its goals in two way: the first one is by *publishing a lot of researches and articles*; the second one is by *closely collaborating with local social organizations and farmers* (in their legal fights against big corporations) in order to build the effective capacity needed to better and really realize the “change” in the way the agricultural system works.

Question 2: Now, we are going to talk about “*Land Grabbing*”. In 2008 GRAIN was the first organization which raised the alarm of Land Grabbing ([see the Report](#)). Could you explain *what does exactly mean “Land Grabbing”*, *why* are rich countries and big corporations so interested in fertile lands and what are *the main positive (if there are) and negative effects* of this practice?

Answer:

Well, in 2008 there were two important events that triggered the race to Land Grabbing: *the food crisis* and *the financial crisis*. With regards to *the food crisis*, in 2008 food prices everywhere around the world were on the rise and a number of countries, which rely prevalently on imports to feed their population (e.g., The Gulf countries and China), were severely affected by the increase in the prices of food. So, these countries decided to buy fertile lands abroad (especially in Africa) in order

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to directly grow food for their own market, instead of going on with importing food abroad (a strategy suggested for many decades by the World Bank). As for the *financial crisis*, with the collapse of the housing market, big financial companies and investment houses started to look for a “safe haven” where they could invest and easily make a lot of money. They found it in the “farmland”: in fact, with the exacerbation of climate change, farmland is becoming increasingly scarcer, as well as, a strategic asset for companies; in other words, its value is destined to grow up. With regards the *implications* of Land Grabbing, we do not find any positive effects. On the negative side, instead, there are a lot of implications. Where Land Grabbing happens, local communities are removed from their lands and local farmers lose the land to produce their food. All that brings to: *less livability and security* of the places affected, *an abuse of the local communities’ human rights, a reduced capacity in producing food and feeding local populations, miserable labor rights* (for the people that works for the big corporations) and so on.

Question 3: When a foreign investment could be considered as Land Grabbing? And what are *the main actors involved* in the process?

Answer:

Land Grabbing is not a new phenomenon. It goes on since the times of colonization. What is new are the actors involved (big corporations and investment houses) and the geopolitical consequences of Land Grabbing. The worst (and most diffused) form of Land Grabbing is when a foreign investment is conducted in a *non-transparent way* and *without any process of consultation and discussion* with local communities about their future and the future of their land. However, also an investment that is based on a transparent agreement between the corporation and the host government should be considered as a Land Grabbing investment. In fact, also in this case local people and farmers are removed from their land with all the negative consequences in terms of housing, nutrition, work and, more in general, human rights. Such investments bring richness to corporations while local people are dispossessed of their home.

Question 4: GRAIN is working very hard on the matter of Land Grabbing through the publication of several and highly detailed articles and the building up of a dedicated website (<http://farmlandgrab.org/>). Could you give us the main data on *the size of the phenomena* and what are *the countries mainly involved* in the practice (both investor and target countries)?

Answer:

Well, it is very difficult to give the exact measure of Land Grabbing. Over the past few years the [World Bank has come out with reports](#) putting the size of the phenomena between 50 and 80 million hectares of farmland bought in the last half-decade. Others put this figure much higher. Just to give you an idea, according to the majority of the estimates, the amount of land grabbed is close to *half the amount of all European farmlands*. Most of that land belongs to poor countries in Africa: Ethiopia, Kenya, Uganda, Tanzania, Mozambique etc.. But Land Grabbing is also taking place in some Latin American countries (such as Argentina and Brazil) and in Asia. As regards to the investors, Land Grabbing is a very mixed phenomena: we find countries like the Gulf States

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and China, as well as, big investment companies coming from either London, Chicago, New York or India, Brazil and Malaysia.

Question 5: The content of production in the land acquired by big corporations can differ widely. From *food to exports, or bio-fuels*, which do you think is *the most common object of Land Grabbing*?

Answer:

What is important for big corporations is *to make money*, regardless the object of their investment. So the land can be used to produce food, for exports, for agro-fuels or even to use it as a way to get carbon credits; it doesn't matter; the important thing is to make profits. An example is given by the Indian company "Karuturi", specialized in the business of flowers: it produces flowers in India as well as in Kenya, but it has also decided to include food in its assets and, for this purpose, it has got a huge amount of land from the Ethiopian government; this food is used for export market! As for agro-fuels, we are registering a large expansion of Oil-Palm plantations around the world as it is very cheap to produce and can be used for making biofuels. However, also part of flower or sugar-cane plantations are used to produce ethanol.

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Question 6: In 2012, GRAIN published an interesting Report that connects the thematic of Land grabbing with the increasing power of big corporations' in the agro-business and recent economics trend: [Who will feed China: Agribusiness or its own farmers? Decisions in Beijing echo around the world](#). *China and India* are the countries (among the so called "emerging" ones) with the biggest population. Could, in your opinion, the evolution these two countries are registering (towards a more industrialized economy) further exacerbate the phenomena of "Land Grabbing"? And *how should this problem be tackled*?

Answer:

Firstly, it is important to recognize that China and India are not only the countries with the biggest populations in the world, but also the ones with the biggest number of farmers (about half of the global number) and, in particular, of small farmers. Said that, the article mentioned in the question raises the following point: China is progressively building an industrial food system, but that damages severely small farmers; China is increasingly importing soybean from Latin America and maize from the United States to feed its growing animal industry. In that way, small farmers in China are facing a strong competition from the cheap components coming from abroad. As a result, they are becoming less profitable and are losing lands.

So what's the solution to this problem?

For us the solution is simple: it comes from what the international farmers organization "Via Campesina" calls as "Food Sovereignty". It is an agricultural policy (to apply at both the countries and international levels) which helps small farmers in producing food and gaining access to the land; Food Sovereignty prioritizes local farmers instead of international markets and ecological agriculture instead of industrial agriculture. Only in this way we can produce the food necessary to feed the growing global population.

Question 7: GRAIN has recently published a series of interviews (with local communities) about *resistance to the expansion of industrial oil palm plantations in West and Central Africa*. Could you sum up the results coming out from this initiative? In particular, what are the countries and the companies mainly involved and the state of art in each country?

Answer:

Oil Palm plantations are causing a lot of mobilization from local communities in Central Africa. In the past decades, Oil Palm was traditionally produced in two countries: Indonesia and Malaysia; in those countries it has been used as an alternative to vegetable oils. However, in the last 5 or 10 years, in the context of Land Grabbing, Oil Palm plantations have been expanded rapidly in *Latin America* and in *Africa*. As a result, now there are a lot of local communities, especially in *Cameroon*, *Liberia*, *Sierra Leone* and other *Central African* countries which are struggling for their land. Basically, GRAIN is meeting with social organizations in order to interchange experiences and help local communities struggle against Oil Palm plantations. An example of success in this kind of mobilization comes from *Cameroon*: a U.S. company, Herakles was going to start Oil Palm plantations in an area of about 20 thousand hectares; but thanks to the local, national and international mobilization, the project was stopped.

Question 8: With reference to *West and Central Africa*, big corporations, their lobbies, international organizations and Land Grabbing supporters, say that foreign investments in these countries bring *economic development and occupation*. Is that true? Apart from local communities rights, are this investments really beneficial in terms of economic development?

Answer:

In our experience no! It is true, when these companies take control of farmland in poor countries, they bring machineries, new skills and employ some people. But the evidence suggests that the amount of people employed is much less than the amount of people that used to live and work there before the investment: *the net result is a loss of employment*. Besides, part of this new employees come from abroad, in order to do skilled jobs that local people are unable to do. Finally, the unskilled local employees, very often, get *wages below the minimum levels*: we have seen in many countries, in particular in Ethiopia and in Sudan, that people are paid less than 60-80 cent per day (less than 1 dollar, that is the threshold established by the World Bank to define the line of poverty in the world). Summing up, Land Grabbing reduces local employment and, the people employed fall in miserable labor conditions. In our thinking, this is not development; it is *anti-development*. The only way to bring a real agricultural development in these countries is to redistribute land to small farmers instead of doing the opposite as it is happening now with Land Grabbing.

Question 9: But, are foreign investment in agriculture more *productive* than local small farmers?

Answer:

Most people think that big industrial farms are more efficient and productive than small farms. It is a big misunderstanding! In academic, scientists have found a result known as "*the productivity*

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paradox": they have observed that small farms are much more productive (in terms of what they produce from the same amount of land) than big corporate farms. The reason is simple. It is clear that a family with a little land at disposal, will use it in the best efficient way and without leaving any room unused; they produce a diversity of food and, at the same time, preserve the landscape, the fertility and productivity of their land. On the other hand, big corporations are only interested in the return on their investment. In order to achieve that goal, they try to keep the cost of production at minimum levels (so paying less wages to labors) and export almost the totality of the food they produce. In such a way, local people lose access to local food and their nutrition worsens. That is no the solution to stop hungry, food crisis and famine around the world!

Question 10: In November 2013 GRAIN, together with other organizations, signed [The Calabar Declaration](#), an agreement against the business of Oil Palm in poor countries. Could you give us more details about *the intentions, the contents and the practical effects* of this agreement on the specific thematic of Land Grabbing?

Answer:

The agreement was drafted in order to articulate *a new level of cooperation between the organizations and local communities* involved in the battle against Land Grabbing, specifically against the expansion of the Oil Palm sector in Africa. Practically, the agreement supports the cooperation, coordination and exchange of experiences between organizations settled in different countries of Africa. In the Calabar Declaration it is described *how these organizations see the problem, what solutions they propose and what they are going to do* about it. Finally, the signing organizations have promised their *commitment* to work together in order to *mobilize supports at an international level* and better coordinate all the actors involved in the struggle against Land Grabbing in Africa.

Question 11: Summing up the finding of our discussion: 1) Land Grabbing is mainly driven by the need of better manage nutrition and energy needs in developed and emerging countries; 2) Land Grabbing is a tool for big corporations for increasing their profits; 3) on the other hand, big corporations and international organization strongly consider foreign investment as a way to bring economic development in poor countries; 4) behind Land Grabbing there are agreements made in a non-transparent way and that often don't take into accounts rights and interests of local communities. Now the world is going to face a big challenge: *how to feed a growing population*. Is Land Grabbing the right solution to that problem? If not, what do you propose about?

Answer:

Let me focus on the first point you have just mentioned. In our opinion, the way of how the industrial food system is expanding is not the right way to better manage nutrition and energy needs in the world; the industrialization and internationalization in agriculture is imposing a system organized on a much more exploitation of people and resources. In the case of bio-fuels, the development of Oil Palm plantations and other bio-fuel crops in poor countries to feed cars in the North is not the solution for the energy crisis; the real and effective solution is *to reduce energy consumption*. Moreover, [many studies show that the production of biofuels is exacerbating the climate crisis, not solving it](#).

So, what does GRAIN propose?

We have to support the development of small skilled farmers around the world. Unfortunately, at the moment, these small farmers are struggling against many odds: the policy against them, the prices against them, the market and the large corporations against them. All these things must be stopped. We have to create a sustainable agricultural model; “supporting more skilled small farmers” is the only way we can do it!

Question 12: Finally, since GRAIN was founded 20 years ago, has the *sensitivity of governments* towards small farmers increased? Or are they still encouraging big corporations? *What will be the future of Land Grabbing?*

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Answer:

The answer to this question depends on how much optimistic or pessimistic you are about the future scenario. On the negative side, over the past decades there has been *an increase in the power of big corporations* in all areas of agriculture; this is partly due to the growing support they receive from most of the governments around the world: these governments have written (and are writing) laws that mainly favor the consolidation of the corporations’ power and allow them to pollute more instead of reducing their emissions. In particular, as for Land Grabbing, the World Bank and other international agencies are increasingly pushing poor countries to write legislations that favor the selling of lands (to the benefits of big corporations). However, on the positive side, in the past few years there has been *a tremendous increase of local mobilization in poor countries* that is asking for a new food system, a system based on “food sovereignty”, that gives answers to the needs of small farmers and supports the creation of direct local markets. Moreover, in Italy, Spain and many other European countries there has been *a surge in movements which strongly support the creation of local markets as well as the consumption of healthy and ecological food*. These movements are suggesting a new model for producing food around the world. This is, in my opinion, a very encouraging sign and can be the start for a new food system, a system which will be able to feed all the global population, reduce poverty and break down global greenhouse emissions.

