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La Via Campesina

La Via Campesina: Our Seeds, Our Future

20 Years
La Via Campesina
International Peasant Movement

La Via Campesina:
Our Seeds, Our Future

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Cover photo: *Winnowing lettuce seeds in Schlintern, Austria*

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Seeds hold a special place in the struggle for food sovereignty. These small grains are the basis for the future. They shape, at each life cycle, the type of food people eat, how it is grown, and who grows it. Seeds are also a vessel that carries the past, the accumulated vision, and knowledge and practices of peasant and farming communities worldwide that over thousands of years created the basis of all that sustains us today.

Seeds were not created once, remaining the same thereafter. They are not things, but part of a constant process of recreation. As such, people struggle over them and over different visions of farming and agriculture. About 100 years ago, a process began that aimed to change agriculture according to an industrialized vision of life. This process transformed food production in many areas of the world. The modification of seeds was at the heart of the transformation, enabling the homogenous and oil-dependent crops that dominate in industrial agriculture today.

Despite the industry's dominance and continuing efforts to marginalize and even criminalize small-scale peasant and family farming, we find that our seeds have deeper roots. Everywhere, seeds are being reclaimed and brought back as a central part of life in communities, even in cities. They are the basis for a sustainable, healthy and just agriculture. The following pages spotlight some of the daily struggles for our seeds and the places where they take place. They show the seeds of women and men peasants and family farmers in Asia, Africa, Europe, Australia and the Americas, as well as the exchanges, resistances, discoveries and solidarities of the peoples and agri-cultures that weave the fabric of La Via Campesina, and the fabric of our future.

The terms in **bold** can be found in the Glossary.

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Small-Scale Farmers and Peasants Worldwide are the Last Defence against the Destruction of Seeds

La Via Campesina

Peasant and farmers' seeds are under threat of extinction. If we do not change the course history is taking, our children will not be able to produce their own food. Peasant, local, community, subsistence and family farming still produce 75% of the food that is consumed on the planet, and 90% of non-mechanized non-motorized farmers of the world produce the majority of their seeds themselves. This situation is intolerable to transnational corporations, which have decided to put an end to it. They have already carried out this program in rich countries where some "improved" industrial varieties, almost identical to one another, have replaced the great diversity of peasant and farmers' seeds in the fields. Now they want to extend this policy to the rest of the world:

- first, by opening up all borders to the subsidized products of industrial agriculture from rich countries, and allowing them to ruin peasants and small farmers who practice family farming;
- then, by usurping the land and water that are essential for crops;
- and finally, by prohibiting all peasant and farmers' seeds and replacing them with **patented** industrial seeds.

The successful struggles against GMOs have shown that small-scale farmers and citizens of the world can kill this program. The labelling obligation allows many countries to reject unwanted seeds. But new patents on non-labelled transgenic seeds are conquering our fields. Multinational corporations are using them to take over all of the world's seeds. Whoever controls the seeds controls the right to food, food sovereignty, and the political sovereignty of the people. That is why La Via Campesina has taken the oath to never let our seeds fall in the hands of a few greedy companies.

The diversity and variability of peasant and farmers' seeds against the standardization of industrial seeds

Selected and reproduced by family farmers in their fields, peasant and farmers' seeds adapt on their own to the diversity and variability of the soil, climate, and farming practices, as well as to local food and cultural needs. Their diversity and variability are key to this local adaptation which is constantly renewed. "Improved" industrial varieties, on the other hand, are standardized to adapt everywhere to the same technological package, without which they are incapable of growing: fertilizers and chemical pesticides, large machines, and extensive land development works that destroy the soil, the trees and available water reserves. Furthermore, this whole technological package is petroleum based.

Prohibiting small-scale farmers from exchanging their peasant and farmers' seeds because they are not standardized according to industrial regulations means the ruination of peasants and farmers, and their replacement by petroleum energy. We currently have, on the one hand, an industrial agriculture that consumes more energy than it creates. Since this kind of agriculture depends on petroleum, it warms the planet, destroys the soil, and contaminates our water, air and environment. To replace petroleum with bio-fuels and other industrial plant transformation processes would only warm the planet more.

On the other hand, there are millions of landless farmers and peasants, and of unemployed, who want nothing more than to replace petroleum energy by dedicating their work to a type of small-scale and organic farming that is nutritious, healthy, money efficient and capable of cooling the planet. With many farmers this type of farming produces more food than industrial farming on the same surface of land. But without peasant and farmers' seeds, there is no small-scale family farming. The huge diversity of these seeds allows them to adapt, without chemical inputs, to the diversity of the environment and climate variations.

The industry wants to replace this diversity with certain "improved" varieties that require everywhere the same chemical fertilizers and pesticides, and the same machines that replace small-scale farmers and peasants in the fields. But the industry cannot produce its "improved" seeds without drawing on the heritage of peasant seeds. This is why it has mobilized states to collect these seeds - at the same time that it works towards prohibiting them in the fields - and to lock them up in **gene banks** made available to the industry. The industry also knows that the millions of peasants who practice subsistence farming do not have the money to buy these "improved" seeds and the associated technological package. The only reason it has not extended its prohibitive laws on peasant and farmers' seeds to them is so they can continue to renew the small amount of genetic diversity the industry nonetheless needs.

The peasants and farmers who have lost their local seeds cannot select new ones with standardized commercial seeds, which are all "drugged" with fertilizers and pesticides. But they can still look for seeds among their colleagues who practice small-scale and subsistence farming. In spite of the multiple obstacles, they can also attempt to recover the local seeds of their parents from refrigerated banks, in order to select them and adapt them to the small-scale farming of today.

Genetic transformations: health risks and the usurpation of our seeds

The industry is now manipulating plants with new technologies of molecular biology to make them produce insecticides or tolerate herbicides; these two kinds of plants are the two GMOs most commonly found. And for tomorrow, the industry promises the creation of seeds resistant to a lack of nitrogen or salt, or an excess of water, or drought. On the one hand, peasants and family farmers do not accept these dangerous seeds because they pose health risks to humans and the environment. They know GMOs are not healthy and, whenever possible, they feed their communities with their own seeds. On the other hand, they also fight against GMOs because the patents that go along with them destroy the food sovereignty

of the peoples of the world. Patent policies are but a way of destroying the independence of small-scale farmers and peasants. GMOs and patents contaminate our fields and then prohibit us from using our own seeds.

To produce the GMOs of the future, transnational corporations believe that they can do without live seeds, and that they no longer need to preserve their capacity to germinate in order to give birth to plants, because they can resort to the frozen corpses in the large Doomsday gene bank in Svalbard, Norway. This is why they have decided to let national gene banks die and to try to impose everywhere their **Monsanto Laws** (see box, UPOV 91 and the "Monsanto Laws", p.16), with the purpose of eliminating the millions of peasant and farmers' seeds that still survive in the fields of small-scale and subsistence farming.

Farmers all over the world fight for life

But life is always stronger than those who seek to outwit it. The new industry genes are affected by insects, fungi, microbes or resistant weeds, in less time than it takes to create other ones. The race to appropriate all seeds only leads to death. Only peasants and small-scale farmers are capable of offering an alternative to this suicidal program, by carrying on with their work of conserving, selecting, reproducing, exchanging and distributing local seeds. This collective effort is mushrooming all over the world in "seed houses and barns, and local centres for peasant and farmers' seeds managed by communities".

If the know-how of farmers and peasants in selecting and conserving seeds disappears as older people pass away, our children will be left at the mercy of multinationals. If small-scale practitioners do not, starting today, go and retrieve from still accessible refrigerated banks the seeds of their parents which are required for new selections, then these seeds will no longer be available tomorrow. This is why La Via Campesina is developing its seed campaign along two axes:

1) by exchanging know-how from farmer to farmer, and organizing collectively to produce and conserve locally our own seeds intended for small-scale farming and organic farming;

2) by fighting against the Monsanto Laws, and enshrining in the laws of each country and at the global level the recognition of the inalienable rights of peasants and family farmers to conserve, use, exchange, sell and protect their seeds.

This book presents some of the positive projects and experiments carried out on different continents by the organizations of La Via Campesina. These experiences form the basis for public policies for the conservation and sustainable use of plant **genetic resources,** and for the application of the rights of farmers and local communities, as defined in articles 5, 6 and 9 of the FAO Seed Treaty. If the Treaty and other international institutions do not insist on them being respected, then La Via Campesina and its allies will ensure they are carried out country by country.

Celebration in honour of seeds during an agroecology gathering in Paraná, Brazil

From Farmer's Hand to Farmer's Hand: How Korean Women Farmers are Protecting Native Seeds

Korean Women Peasants Association (KWPA)

Native seeds and women farmers
An old Korean proverb says: "Even though the farmer dies, she dies with her head on the seeds." For women farmers in Korea, seeds are more than a source of food. They are a history and culture that have been handed down by our ancestors.

Women farmers who produce and nurture life enjoy respect and admiration for their role in protecting peasant seeds. But this role is increasingly challenged by transnational corporations. This is why the Korean Women Peasant Association (KWPA) is struggling for women farmers to take back these essential rights. To this end, we have created the Native Seed Movement.

KWPA and the native seed movement
KWPA works together with La Via Campesina in the common struggle to protect peasant seeds. Protecting our seeds is part of the larger food sovereignty movement.

In 2006, Korean women peasants launched the United Farm Plot Movement. First, an exchange took place between North and South Korea, in which women farmers planted native seeds, creating the Inter-Korean Exchange Fund. Our work continued in 2007 with a focus on locating native seeds, learning about seed work in other countries, and learning more about traditional Korean seeds. That same year, East and Southeast Asian women farmers gathered for an International Seed Forum. The goal was to develop a system to protect native seeds in the different countries.

In 2008, approximately 1,000 square metres of land in two locations was planted with native seeds. A seed farm was established to scale up production. KWPA members also started discussions and education about the importance of peasant seeds. Beyond women farmers, we wanted to reach out and involve non-farmers too.

Educating consumers
One of our efforts to expand interest in seeds started in 2008, when the Korean government began importing large amounts of **genetically modified** maize for use in food production. Given these imports, Korean citizens had no choice but to consume this risky maize, whether they wanted to or not.

KWPA responded with a new project, in cooperation with environmental groups. The goal was to block imports of GM corn flour. But we also wanted to substitute

peasant maize for genetically modified varieties. Working with civil society groups, women farmers planted and exchanged native maize seed. We received so much encouragement that we decided to expand the movement under the banner of "Ten Thousand Won of Happiness". Anyone who wanted to support native seeds could invest ten thousand won ($9 USD). In exchange people received products made from peasant seeds. Some of the money also went to a fund for preserving traditional seeds.

Conserving seeds within the community: native seed farms
KWPA also runs native seed farms. The goal of these farms is to plant traditional peasant seeds more efficiently and collectively. A native seed farm is a field where native seeds are planted, for subsequent distribution to farmers. The first farm was established in 2008. Today we have native seed farms throughout the country, in all 15 major cities and provinces.

In each native seed farm, 20 to 30 different varieties of threatened seeds are planted and farmed according to traditional methods. The women farmers in each district cultivate collectively.

The planting and harvesting in these fields is only intended to increase seed quantities, and not to produce crops. The seeds are distributed among the women farmers of the region. Farms also promote seed exchanges and share knowledge. Research and seed festivals are an important part of the work of the farms. These seeds are not industry products. They are planted and raised by farmers.

One woman peasant, one peasant variety
An important part of KWPA's work is the "one woman farmer, one native seed" program, in which each member is responsible for at least one variety of native seed. The seeds are conserved in family plots and the harvested seeds are also shared with other women farmers. But responsibility does not only extend to seed conservation. It also involves raising awareness about the fact that supplying seeds is not the task of companies, but the right of every farmer.

In the beginning, we were frustrated because we did not know where to find the disappearing native seeds. We needed a structured movement to locate them. Working together, native seed experts and KWPA members searched for native seeds in their own regions. They found that 90% of the people who still preserved traditional peasant seeds were women farmers, but that the majority of them were already elderly. Our goal was not only to find the seeds, but also to learn more about their qualities, their cultivation methods, and the history of their uses.

Jeju Island is a good example of our systematic local efforts. Here, KWPA has been conducting native seed research for the past year and is about to publish a book on the experience. The book showcases Jeju's native seeds and describes the women farmers who have been caring for them. It also presents the seeds' characteristics and cultivation methods. We want to produce similar guides for all major areas of Korea.

When materials are created on the history and experiences with Korean native seeds, people become interested not only in these seeds, but also in farming more generally, and finding out what farmers do. This is true native seed research, carried out by peasants.

Festivals for native seeds

We have held native seed festivals for women peasants who save seeds but also for non-farming citizens who have joined or may want to join the struggle. Seeds from the previous year are brought from all over the country to be displayed, exchanged and distributed at the festival. Farmers share their experiences and give presentations on how to care for seeds and on their work with non-farmers. The stars of the festival are the women farmers, the citizens who care about seeds, and of course the seeds themselves.

Working with farmers and seeds is very special work. When teaching other farmers about the importance of seeds, many understand very quickly. They say "Of course. That's how we used to farm." They are excited to work with native plants again.

The process of educating consumers is similar. As we give lectures directed at consumers, they say, "I didn't realize that Korea had lost its seed rights." Or they ask us, "What can we do about this?" Many have joined our struggle.

Seed exchanges in Hamahn, in the southern province of Kyungsang, Korea

Climate change and new challenges
Environmental changes grow more serious with every passing year. Native seeds are stronger in combatting the effects of climate change. Nevertheless, we are experiencing new challenges that are difficult to overcome.

For example, there were only 30 days of sunshine from December 2009 to March 2010. Snow and ice affected all the peach blossoms. Heat waves and excessive rain drove up the price of Chinese cabbage that we use to make the Korean staple food, *kimchi*. The price of cabbage reached 15,000 won (approx. $13 USD) per head, causing widespread discontent. In September of the same year, typhoon Kompasu ripped through our fields, causing the lowest rice yields in 30 years. Other crop yields also dropped by about 20 %.

Although we are experts at producing food, we proud women peasants could only throw up our hands in the face of these record-breaking climate irregularities. We realize that we are experiencing severe changes to our climate for the first time. Environmental changes such as these have not occurred within living human memory and they put peasant seeds at risk.

Stopping our dependence on the industry
Starting to farm again with native seeds is a learning process. Usually farmers do not know the distinctive characteristics of these peasant seeds, so they go through a process of trial and error.

For example, for the first time in their lives, women farmers are planting native maize. Having only ever planted industrial strains, they first worried when the maize did not grow tall. Fortunately, some older women remembered that the native corn did not grow as tall. Also, they did not know the exact time at which to harvest. Therefore, each day they would peel back the husk a little to check on the grains. When they waited too long to harvest it, the maize did not soften upon cooking, causing problems for consumers.

How to explain this? When farmers buy seeds in a store, they simply ask when to plant and when to harvest. They follow the instructions of the seed companies. Therefore they stop observing the plants for themselves. The example of maize shows that dependence on the industry has caused farmers to forget how to farm adequately. The farmers' eyes could no longer see the right time for harvesting.

This problem is the result of farmers who become dependent on purchasing seeds, fertilizer and other chemicals, and even microbial cultures in organic farming. The result is a loss of knowledge, resources and autonomy.

Learning from other farmers
Going back to traditional farming is not always easy. Even experienced farmers do not know how to work with native seeds at first. We have many questions about native seeds, but also many new stories. There are so many stories that we have conversations about them far into the night, and still we do not finish telling them

all. These experiences are unique and valuable. We are beginning to write down the stories of women farmers, which we share with our neighbours.

Protecting our native seeds is also a fight against industrial farming technologies that are incompatible with them. We are confronting **UPOV** regulations that have been in effect in Korea since 2012. Also, the Korean Ministry of Agriculture is promoting **GMOs**, and we are faced with the problem of genetically modified maize that contaminates our food maize. These are only some of the many threats to our work on seeds.

We can only protect our seeds by learning from other farmers and reproducing seeds ourselves. Some people encourage the preservation of seeds through refrigeration in banks, but KWPA believes that it is more important to preserve seeds through planting. We are in the process of establishing a native seed distribution centre so that farmers can grow native crops at any time. The goal is to operate native seed distribution centres in every region of Korea. In these centres farmers can obtain and exchange seeds, and share information about their care. When the seeds are harvested, they can be brought back to the distribution centres to be passed on to other farmers. In this way, native seeds can grow.

KWPA is reclaiming the seed rights of peasants, the best weapon for producing without chemicals. And women farmers continue working with non-farmers to find, select, and protect our native seeds. These are not only the seeds that will create food sovereignty. They are also the seeds to create a new society.

Mozambique: One Experience in Recovering, Reproducing, Selecting and Conserving Native Seeds

National Farmers Union of Mozambique (UNAC) and the Movement of Small Farmers of Brazil (MPA)

The farmers of Mozambique are developing a peasant native-seed system through an exchange between the National Farmers Union of Mozambique (UNAC) and the Movement of Small Farmers of Brazil (MPA), both members of La Via Campesina. The experience is the result of internationalism and solidarity among small-scale farmers, as well as of the peasant identity of social justice movements, in the framework of the campaign "Seeds: Heritage of the People for the Good of Humanity".
The experience involves more than 4,500 women and men farmers from the associations and cooperatives of the Union of Agricultural Cooperatives of Marracuene (UCAM), situated in the province of Maputo. More than 100 of these family farmers have direct contact with this activity.

Concerned about the question of the food sovereignty of Mozambicans, UNAC began looking for partners to strengthen the farmers' production systems, through the recovery, reproduction, selection and conservation of native seeds. In 2008, recognizing the experience of MPA of Brazil in the production of native seeds and the practice of small-scale farming, the directors of UNAC proposed an exchange that began in 2012.

The farmers of Mozambique and colonial seeds
Before the colonial period, the seeds used by Mozambican farmers were native and produced within the community. With the invasion of the Portuguese since the 16th century, plantation agriculture introduced new, non-essential, non-food crops in Mozambique, including sisal and cotton. In this process, much of the labour force was made up of slaves. This led to a drop in the number of autonomous farmers involved in the production and reproduction of food crops, as well as to the disappearance of various varieties of native seeds.

With independence in 1975 and the expulsion of the Portuguese colonists, Mozambican peasants entered a new phase. They now had their own *machambas* (cultivation areas). However, the male population, which had been forced to work for the settlers during colonization, had lost the culture of working their own land. This prompted many Mozambican men to seek work in gold and diamond mines, mostly in South Africa.

With the departure of the Portuguese settlers and the beginning of the civil war in 1976, Mozambique plunged into a serious food crisis, due mainly to the situation of Mozambican family farmers, who lacked infrastructure and equipment, and had

limited access to seeds. With the intensification of the civil war, many farmers had to leave their *machambas* and flee to the cities and towns. At the time, many varieties of crops were destroyed, as it was no longer possible to collect and store the seeds.

During the period of the civil war, the Government created SEMOC (Seeds of Mozambique), in order to produce improved seeds for farmers, but this initiative was not successful. It is only after 1992 and the end of the war that farmers began to re-occupy the land and resume food production. At the time 90% of the seeds used in agricultural crops in Mozambique were indigenous and 10% from commercial varieties.

The recovery and reproduction of seeds

The experience of strengthening peasant production systems through the recovery and reproduction of seeds, in the framework of the exchange between MPA and UNAC, represents a new dimension. Until then, farmers produced their own seeds, but made no distinction between a field for seed cultivation and a field for food production. This form of production, mainly in open pollinated crops, as in the case of maize, causes damages. This occurs, for example, when farmers only extract seeds from a few plants, causing a decline in the productive potential of the variety.

This program aims not only to recover, reproduce, select and conserve the seeds of native species through political and technical training on farming production systems focused on the question of seeds, but also to create a group of leaders, technicians and farmers who can bring continuity to these practices.

Four crops were defined as working species: maize, *nhemba* bean, peanut and cassava, with a total of ten varieties of these crops. When complete, the program will have established a seed selection and production field for each variety. The fields are situated close to the headquarters of the Farmers Union of Marracuene (UCAM) and to four community-based associations or cooperatives, defined according to the species and varieties cultivated by each of them. Both the headquarters of UCAM (in the province of Maputo) and the associations have communal land, which allows for the involvement of a greater number of family farmers in the establishment of the fields. UCAM is made up of 38 associations and community-based cooperatives.

Working with seeds again

Based on the plans, cooperatives and associations were visited to begin the training process together with the farmers, and the areas where the fields were to be established were visualized. Political and technical training was carried out that included discussions on the criteria for defining the species and varieties of crops that were already produced by the association, those at risk of extinction, those most important for food, and those with an easy market for surpluses.

The chosen criteria were that the seeds should be made available by the members of the local farmers' associations, and that a minimum of three members would

then save the seeds. This way the farmers can conserve enough diversity within a single variety. After defining the species and varieties, the location and size of the fields were defined using criteria such as collective areas of good natural fertility, and the isolation of the crops. The size of the fields was determined based on the need for seeds of each association or cooperative, and with the knowledge that part of the seeds would serve to create a seed house at UCAM's headquarters.

Sowing started in September 2012, with the first rains, and ended in December of the same year. Some of the fields were sowed using techniques already used by the farmers. The "seed by seed" (grain by grain) technique was also used in the case of maize. The weeding (control of spontaneous plants) was done manually, with the use of hoes. While weeding, thinning out was also done where necessary.

The harvests occurred in two stages. In the first stage, a massive **selection** was carried out – to be done at the time of ripening – in which the best plants were harvested, to serve as the base for the seed field of the following crop. In the second stage, the rest of the field was harvested, already dry. Following a selection of ears, plants and pods, this harvest was reserved for the food production of the next crop.

After the harvest and selection, the threshing, drying, cleaning/treatment, and storage of the seeds were all carried out. The farmers received the technical support of comrades from MPA and from UCAM's rural development team, who made visits to monitor the sowing, germination, development, flowering, harvest, threshing and drying, cleaning/treatment and storage.

Growing cabbages, Matola Province, Mozambique

After a year of sharing, learning and cultivation

The success of this experience is shown in the results of the first year of work. More than 100 farmers received political and technical training on the peasant systems of seed production. A study group was created on these systems, focused on the issue of seeds, with UCAM leaders and experts in rural development, and small-

scale farmers from 11 associations and community-based cooperatives. All of the fields were established in collective areas, which allowed for more learning and exchange between farmers. Of the ten fields anticipated in the planning, seven were established: two each with maize, peanut and cassava, and one with *nhemba* bean.

One part of the seeds produced in the fields was given to the members who participated in the work so they could use it for their next crops in their *machambas*, and the other part was earmarked for the seed house that is being set up at UCAM's headquarters. This way, the seeds will be available for the associations and cooperatives that will participate in the seed production experience for the next crop, and who commit themselves to give part of the production to the seed house. All of the cultivated varieties already have seeds to carry on with the experience. Furthermore, there is a surplus of seeds that will be made available to farmers for food production.

The challenges of this experience lie in the consolidation of the work in Marracuene, involving all member associations and cooperatives of UCAM and the largest possible number of small-scale farmers; in the broadening of the number of species and varieties; in the increase in seed production to meet the needs of all family farmers in other parts of Maputo, and later Mozambique. A study group has been created which is receiving ongoing training and has the task of carrying on with the experience. The MPA will provide continuity, support and monitoring. At the national level, UNAC has created a working group that will act on the issues of seed policies and regulations, and international coordination.

Margarida Munguambe Cumbe, a woman farmer, also one of the leaders of UCAM, who participated in the exchange, summarized it as follows: "After this learning experience I am happy to know new techniques for cultivating, harvesting and selecting our seeds. Furthermore, I will now have a better maize production. But we did not only learn new ways to select seeds, we also grew and continued to weave networks thanks to La Via Campesina and the solidarity of our comrades from MPA."

Struggles in Germany for the Right to Reproduce Seeds. Are Fees for Farm-Saved Seed also a Threat in Other Countries?

Arbeitsgemeinschaft bäuerliche Landwirtschaft, (AbL) Germany

Our millennia-long right to re-sow the seeds from our harvests is being threatened and legal attacks against farmers in Europe are increasing. However, these developments are not only affecting farmers in Europe, but farmers all over the world, including in Latin America and Africa.

In the late 1990s, the Association of German Breeders, which represents the seed industry, started sending out questionnaires to thousands of German farmers. They wanted to know what crops they grew in their fields, what varieties were being used, and how many seeds the farmers had bought. This "curiosity" is explained by the fact that, according to **Plant Variety Protection** laws, German farmers must pay **royalties** or fees to breeders if they save and re-use seeds bought from seed companies.

The industry wants to know what farmers are planting so they can be sure to collect these fees if farmers re-use seed. In Germany, the fees currently apply to farmers sowing field crops such as cereals, legumes and potatoes. But the industry is hoping to extend this to other crops and to restrict the types of seed varieties that farmers are allowed to re-use at all. In France, farmers must also pay royalties when they sell their harvests of soft wheat, and since 2011 there are draft law proposals to extend this to all crops grown in that country.

In 1998, farmers from the German Working Group on Peasant Agriculture (*Arbeitsgemeinschaft bäuerliche Landwirtschaft*, or AbL) founded an organization to resist this development towards the payment of **royalties** and fees. AbL is a Via Campesina organization representing around 1,700 small and medium-sized farmers in Germany, who struggle against the dependence of agriculture on the industry. The new organization against the payment of royalties started refusing to give information about what they were growing on their land, and with what seed. They were sued for this and lost several cases in the lower-district courts. However, in 2001, after more than a decade of fighting, their case reached the highest German court, and in 2003, the European Court of Justice. "The breeders sued us over 1,000 times, but the highest court finally decided in our favour on the essential points," says Georg Janssen of AbL. "Now we are no longer obligated to give general information about what we grow, except when we use the specific seeds of a company." Also, those who offer the services of cleaning and drying

seeds are not forced to reveal this information to the companies, and the amount of the fees to be paid was brought down.

The organization that the farmers established to fight for their right to save seeds now has more than 1,000 members. And across Germany, 40,000 farmers refuse to give information to the seed industry. AbL continues to be active in the public sphere and to alert farmers about the topic. They want to get the message across that the reproduction of seeds is the responsibility of society as a whole and not of an industry. The type of seeds we have determines how we farm, and the kinds of food we eat. However, it is a difficult struggle. German and European seed companies exert much power to influence seed regulation policies throughout the European Union.

Most recently new laws are being pushed at the European level to further restrict the ability of farmers to use and exchange seeds. For example, the proposed laws want to keep track of every seed entering or leaving a farm in order to stop seed exchanges among farmers. If they want to avoid being prosecuted and made to pay for having used "illegal" seeds from their neighbours, farmers will be forced to buy certified seed. They will also be pressured into not re-using it, for fear of having to pay royalties or fees. In the end, it will be more expensive and risky to save seeds than to buy commercial ones.

AbL has been active in trying to promote awareness about this situation which also affects other countries. "In the discussions in Via Campesina meetings, we agree that the experiences in Germany are important for other countries in Europe," says Georg Janssen.

But the problem extends beyond Europe. In general, it is related to plant variety protection regulations, in particular the latest version of **UPOV**, known as UPOV 91 (see box p.16), which is being aggressively imposed in many Latin American countries, for instance. This is sometimes the result of particular legislation, but is also being implemented outside the public eye, through executive orders, decrees and administrative rules.

For example, fruit growers in Chile have been forced to choose between paying royalties every season, and having their trees uprooted in case of refusal. Colombian farmers have already suffered massive confiscations of their rice seeds and harvests, and run the risk of this happening again if their seeds or crops even resemble a privatized variety. It is now common in Latin America for public extension programs, and also loan programs, to request proof of purchase of certified seeds every season, or else proof of payment of the corresponding royalties. In Africa, where farm-saved seeds account for 90% of seeds used, there is also strong pressure to implement similar systems of plant variety protection based on UPOV 91. If these become law, they will cause the same devastation as in Latin America.

This serious situation harms farmers around the world and must be stopped. Farmers have the fundamental right to choose which seeds to work with. This is a

millennia-long practice that has created the diversity of crops we enjoy today. Farmers must not surrender their autonomy or seeds, the very basis of food sovereignty, for the simple purpose of making the seed business even more profitable. The struggle of German farmers is important to farmers around the world because restrictive laws in Europe are subsequently imposed on farmers elsewhere. In this sense, La Via Campesina is a great source of strength, allowing us to join forces in solidarity to fight for seed sovereignty worldwide.

Demonstration against a change in seed laws in Buenos Aires, Argentina

UPOV 91 or the "Monsanto Laws"
In one country after another, multinational corporations are having so-called "Monsanto laws", or UPOV 91 laws, enacted, based on the UPOV Convention of 1991. These laws impose the same legal prescriptions everywhere:

- patents that prohibit 1) farm-saved seeds, 2) peasant and farmers' seeds contaminated by patented genes from neighbouring fields or from organic inputs, 3) and also the peasant and farmers' seeds for which multinational corporations have filed recent patents. These patents are rapidly proliferating everywhere;

- **Plant Variety Protection** is also a way to declare ownership over seeds. These rights protect the standardized variety of industrial seeds. Although the seeds produced by thousands of generations of farmers are the primary genetic resource used free of charge for all industrial selections, Plant Variety Protection classifies them as "counterfeits". Therefore, they are prohibited or else subject to the payment of royalties to the industry. Plant Variety Protection is not an alternative to patents, but its loyal companion. The plants

contained in the new varieties confiscated by Plant Variety Protection are confiscated again with patents;

- the certification of seeds and the catalogue of varieties that prohibit the commercialization and exchange of peasant and farmers' seeds because they are not standardized;

- health regulations and bio-security that organize industrial fraud on a large scale, by allowing multinational corporation to control themselves. But the bureaucracy and analysis imposed by these self-controls are completely prohibitive for the small volumes of seeds produced by peasants, and small-scale farmers and seed producers. In this way, they are once again prohibited from commercializing and exchanging their seeds. These regulations also foresee an electronic listing of all peasants and farmers who produce their own seeds. Governments can then submit the list of these small-scale practitioners to the industry, so that it may prosecute them for "counterfeiting".

The Community and the Defence of Maize: A Purépecha Experience

The Indigenous Community of Pichátaro in the State of Michoacán, National Union of Autonomous Regional Peasant Organizations (UNORCA), Mexico

A movement to defend our maize

The Movement of Indigenous Communities in Defence of Maize and Life emerged in 2004 in an indigenous Purépecha community in the Mexican state of Michoacán. We invited several communities from the region to build community committees to defend our maize. Maize is a pillar of our Purépecha culture, and we sought alternatives in the face of poverty and the abandonment of farmlands by the Mexican state. In 2005 we built the Regional Committee of Purépecha Farmers in Defence of Our Maize. Two key questions were: How to make the planting of maize more profitable? And how to conserve our own seeds, our own way of being, of thinking, our ideals and hopes?

We obtained support from the government to carry out our projects. In this way we were able to start organizing maize festivals in several communities. Through these festivals we sought to recover maize rituals and to expose the wealth of maize in terms of food and culture. In the festivals we offer various maize food products. We also organize informative events such as conferences and discussion groups on how to produce maize, and agricultural production in general.

At the maize festival in 2006, in the community of San Francisco Pichátaro, the community authorities put up a sign with the inscription: "San Francisco Pichátaro first Purépecha territory free (certified) of genetically modified maize". This was an act of opposition to the strong pressures to allow **GM** maize in our country. Before hanging up the sign, samplings and analyses for detecting GMOs were carried out. These came out negative, and from there we activated a process to create awareness about the importance of native maize, and to oppose GMOs. This is an important process in Mexico because multinationals exert much pressure to have genetically modified maize authorized. Although it is still not legal to plant GMOs commercially, they have already contaminated our maize in many parts of Mexico. This is extremely serious because Mexico is the centre of origin for thousands of varieties of maize.

Education and maize festivals

One goal is for rural and urban inhabitants to reappraise local maize products through education. To achieve this we carry out various activities, including regional and community festivals, television and radio programs, newspaper articles, and visits to communities and workshops.

Our goal in holding maize festivals and fiestas in towns and communities is for people to consume products made from native maize. We organize debates and tastings of food made from different varieties of maize. We also show the diversity of local varieties, offer art workshops and exchange seeds. These kinds of parties last for a day, and have been celebrated in various communities such as San Francisco Uricho, La Zarzamora, Yotatiro, Cuanajo and San Francisco Pichátaro. In two of these communities the fiestas have now become part of life in the community. It is no longer the organization but community authorities who seek out the resources to carry out the celebration.

Another way of spreading our message is to participate in regional, national and international academic forums, where we share our experiences. We also carry out programs in communities where people and organizations are interested in finding out more about our work with maize. In this way the farmers are the ones who directly share their vision of native maize and its conservation.

Alternative productive activities

One component of our work is to develop productive projects that give an added value to native maize and generate jobs. This goal is pursued with two major actions: by producing maize using agroecological alternatives, and by adding value to maize by looking for micro-businesses that transform the grain into food like tortillas. This maize is certified organic or is on its way to being certified.

The projects for adding value to the maize grain close the productive cycle. The vision is to put in place a socially just commercialization that is healthy for the environment and economically viable for maize producers. We have carried out market studies and pilot tests for selling different products. In 2005, as an initial result of these efforts, ten hectares of native maize were certified in the San Francisco Pichátaro community, of which five tons were sold to an organic products business.

Working with seeds and the diversity of maize

More work still needs to be done with farmers to encourage the quality of the maize without losing the vision of going back to the *milpa* (the traditional way of planting corn). We believe that when peasants stop working the land it has a negative influence on the practices of selecting seeds and maintaining the quality of maize. This has led to diseases in the roots of the corn or pests in storage. One option to increase the yield and reduce the loss is **participatory breeding**, in which farmers select the varieties of maize together with researchers, developing healthy varieties in accordance with the needs of the community. Here one of the goals of the collection, classification and characterization of maize is to improve production. But this kind of project requires funding and a solid organization with which to work over the long term, both of which are difficult to find.

Although this has yet to be evaluated quantitatively, indicators point to a reduction in the diversity of maize in the communities of the region. The experience and observations of farmers reveal, for example, three lost varieties in the San Francisco Pichátaro community: *pinto olotudo*, *rosita* and *toluqueño*. Other communities also

reported lost varieties of the type that are traditionally planted in rocky or less productive soils, often further from the community, and that require an additional effort.

The market is another factor that encourages the disuse of certain varieties. Some maize varieties like *aperlados*, *pintos* or *amarillos* did not have a market. It is also said that local varieties have been modified. For example, some white maize has become more opaque or the *pepitilla* variety has been mixed with other types and has lost its distinctive characteristic, although people still call it the same. More research is needed to quantify these losses and implement actions to conserve less represented varieties. Wherever possible we must recuperate these varieties. When a variety is lost the knowledge associated with its production is also lost, including its ecological niches.

A man from the community of Pichátaro, Michoacán, shows the seeds that he will keep for next year's planting

What we have learnt and future challenges

Each of the work areas has had a different dynamic, so we move forward at different rhythms. Our research has helped identify local varieties through research institutions. These varieties include *chalqueño*, *tabloncillo*, *cónico*, *celaya*, *palomero toluqueño*, *pepitilla*, *olotón*, *zamorano amarillo*, and *elotes cónicos*.

In general, the problem in the communities of the region is that farming activity is diminishing and that traditional practices are being abandoned. Examples of these practices include hoeing in level curves, maize associations in which maize is planted together with beans, amaranth, chia and squash, crop rotation with broad beans, common vetch and wheat, and the use of manure-based organic fertilizer. These problems result from public policies. To resolve food issues, the government encourages the planting of monocrops and the use of chemical fertilizers and pesticides, at the cost of the community's economic and social system.

Production alternatives are slowly being developed, with setbacks at times, but also many learning experiences. Without a doubt, the most difficult aspect is the coordination between the organizations and production, and between the production and the market. This is why results have been meagre in terms of specific outlets, such as new places to sell, or consumer networks.

We must redouble our efforts. It is difficult to participate in a context in which we want to produce on a small scale, while inserting ourselves in a market that demands products at increasingly lower prices. Traditional farming has allowed indigenous communities to maintain themselves, and to recreate and survive throughout history. This is one of its main values. Alternative markets and the niches that give a mark-up are an option, but due to the difficulty in accessing and creating them, this option can only be a small part of the solution. These markets have a low demand and are quickly saturated. This is why we continue to build networks of local and regional markets, and self-sufficiency. Nevertheless, that seems almost impossible in the context of trade deregulation and the chaos in which the food market now finds itself, not to mention economic problems and a lack of consumer awareness.

It is important to promote education and information in order to bring about a reappraisal of the diversity of local crops and an increase in their demand. The maize festivals and fiestas are one central element. However, their organization is expensive and requires its own permanent working team. This is why we must create a board of trustees among various organizations interested in native maize.

Lastly, as an organization we should keep in mind the complexity of the processes of rural organizing. Farmers and peasants decide where to direct their efforts depending on their profits. This is not only a monetary question, but it is difficult and unnatural to maintain a farmers' organization with the sole goal of conserving the diversity of native maize. This is why we need to work as an organization to recover the meaning and significance of being a producer of life by producing food. We need a broad view of the rural environment and all its activities. And within this framework we must maintain the right of farmers to defend the conservation of their own seeds and of the indigenous and peasant way of life.

The Indonesian Peasant Resistance for Seed Sovereignty

Youth Food Movement Indonesia

The Green Revolution in Indonesia has forced peasants onto a path of industrialized agriculture. This has meant the massive introduction and use of **hybrid seeds** across the country since the late 1970s. With so-called modern technology, the local seeds of peasant communities have been transformed and privatized by seed companies. Hybrid seeds are displacing thousands of local varieties, leading to the loss of seed diversity in Indonesian fields. Today in Indonesia, multinational seed companies control over 90 % of seed distribution. Over 10,000 local rice seed varieties have disappeared since 1970, and farmers are becoming increasingly dependent on industrial hybrids. Their knowledge of seeds is also being lost.

Criminalization of Peasants Who Fight for Seed Sovereignty
While demand for seeds by farmers is high, the Indonesian government does not support farmers who want to reproduce and develop their own seeds. Instead, the government tends to restrict the use of seeds by farmers through various **intellectual property** regulations that benefit seed companies. The seed companies include PT BISI, a subsidiary of Thai multinational Charoen Pokphand, and Indonesian branches or subsidiaries of DuPont/Pioneer, Syngenta, Bayer and Monsanto. But these companies do not simply produce and control seed distribution. They are also threatening the peasant communities that are trying to build seed sovereignty.

For example, various laws criminalize farmers who reproduce their own seeds. A law from 1992 states that farmers can only use and distribute certified seeds. On the one hand, it is impossible for farmers to meet standards of uniformity with their own varieties. Peasant seeds always adapt to local environments and are therefore never uniform. On the other hand, when farmers use farm-saved seed they are accused and prosecuted for violating what is considered to be the **intellectual property** of seed companies.

By 2007, nine farmers had gone to jail for using farm-saved seed, and in 2009, three more farmers were arrested in East Java. They were accused by PT BISI of violating the Plant Cultivation System Law and of using a breeding method that had been patented by the company. Kediri District Court handed these peasants three-month sentences.

Along with other peasant organizations and human rights activists, the Indonesian Peasant Union (*Serikat Petani Indonesia* or SPI) successfully fought for the release of the farmers. A process is currently underway at the Constitutional Court to revoke the seed law that does not serve the interests of farmers. Other campaigns to protect peasant seeds have included a campaign against the introduction of **GMO**

seeds in 2001, when Monsanto tried to introduce the use of GM cotton seeds in Sulawesi. This massive campaign and action was carried out with other peasant unions and organizations. It succeeded in stopping the authorization and public use of genetically modified cotton seeds.

The Resilience of Local Seeds to Climate Change

Decades after the introduction of hybrid seeds, the world has changed. Environmental degradation and climate change have become a real threat, especially for peasant communities whose livelihood depends on the health of their ecosystems. Peasants are feeling the impact; crops have withered in heat waves; the water supply to the fields is decreasing; rainy seasons are becoming longer; floods are destroying near ripe crops; and nuisance from pests is worsening. This situation forces peasants to adapt. For example, they must reschedule planting seasons and find seeds that are more resilient to heat and require less water. Also, in many areas peasants require new seed varieties with shorter life cycles to adjust to changing growing seasons and avoid crop failure. This makes it crucial for peasants to have access to their own seeds. Industrial seeds cannot adapt to the changing environment because they were designed to function in standardized conditions. By contrast, farmers' varieties are variable and can adapt to climate change.

This is one important reason why growing numbers of peasants have begun to refuse industrial seeds. Warsiah is a 53 year-old woman peasant from West Java who grows rice. She prefers to use a local variety to cope with climate change, saying that industrial rice seeds are unreliable and unable to withstand the heat. Warsiah has learned to save and select local seeds which are more resilient to the heat and require less water. She is not reluctant to share her seeds with neighbouring peasants despite the fact that she could be arrested for distributing uncertified seeds. It has been several years now since Warsiah and other farmers from the community in Indramayu, West Java, have abandoned the hybrid seeds of companies. They are determined to be independent farmers who produce their own seeds.

Still, there are few farmers like Warsiah in Indonesia. The dependence on industrial seeds is a result of Green Revolution programs and policies implemented by the government over a period of 30 years. But slowly, the number of farmers who reclaim their seeds is growing. They are encouraged by the successes of farmers who use local seed varieties to face drought, pests and other challenges.

Peasant Seeds in Resistance

Efforts by farmers to reproduce their own seeds are spreading in various districts of Indonesia. However, peasants are realizing that much of their knowledge of seed reproduction is being lost. Farmers are presented with the challenge to remember and rediscover their knowledge of seed selection. This is why it is important to establish training centres where farmers can exchange knowledge, learn together, and improve their skills.

In 2009, SPI established the National Seed Centre, in Bogor, West Java, which has been operating since 2010. The centre trains peasants to select seeds and collects local knowledge of seed selection from various regions in Indonesia. It also conducts peasant-to-peasant learning exchanges, and trainings with seed experts from university.

Harvesting seeds at the National Seed Centre in Bogor, Indonesia

Despite the challenges faced by Indonesian farmers, the country is rich in biodiversity and suitable for farming. It is possible to replicate the positive experience of the National Seed Centre in other areas. In order to make this happen, SPI is taking the following steps: 1) increasing the conservation of seed varieties; 2) preparing community seed barns; 3) setting up a cooperative for seed distribution; 4) encouraging community work at seed barns to collect, select, and exchange seeds.

In 2012, SPI members in District Kediri, East Java, built their own greenhouse that could serve as a training centre for SPI members and other farmers in East Java to learn about seed selection. It is a simple 8 x 20 metre greenhouse built from materials donated by members.

Although simple, the greenhouse manages to serve as a seedling facility for various local seeds, according to the greenhouse coordinator, Kuswari. Various seeds like maize, rice, papaya, chili, eggplants and long beans have been produced in the greenhouse. Several plants are still in the trial cultivation stage, such as local varieties of apples and passion fruit.

The peasants decided collectively to build true seed sovereignty, and are determined to put it into action. Seeds produced by SPI Kediri are distributed to

peasants in the five sub-districts of Badas, Kandangan, Pelemahan, Banyakan and Plosoklaten. In addition to this seed distribution, the SPI Kediri Green House also provides farmer-to-farmer assistance in case of problems, from planting until harvesting. The head of the SPI Kediri District group, Nurhadi Zaini, is also in charge of selecting seeds. He holds regular trainings on seed selection, soil treatment and planting.

Creating seed sovereignty is not an easy task for peasant communities. They face criminalization at the hands of the government and industry. This is particularly a problem in view of the development of **patented** GMO seeds. But we realize that in future will not be able to respond to climate change and the loss of biodiversity without the protection of local varieties and peasant knowledge. This is why peasant communities in Indonesia are fighting against the deepening dependency on the seed industry and will continue to struggle to achieve seed sovereignty.

The Struggle of Canadian Farmers to Defend their Seeds

National Farmers Union (NFU), Canada

Across Canada, the National Farmers Union (NFU) defends the rights of farmers to save, reuse, share and sell seeds. This is part of a struggle against a food industry that benefits corporations at every step in the productive cycle. It is a struggle for spaces where farmers can grow and harvest healthy, nutritious food and assert our work as family farmers. Defending our seeds is an essential part of defending our agri-culture.

Many NFU farmers select, save, and reuse seeds for their crops. This is a daily defence of seeds that takes place in our fields. Moreover, the NFU also focuses on defending seeds in the policy arena. In particular, we want to ensure that the right to use our seeds is respected in government regulations. We do this through educational and lobbying work.

Canadian farmers against UPOV 91
Our work in influencing Canadian regulation goes back to the 1980s. For decades, the work of NFU and other allied organizations has been able to slow down **Plant Variety Protection** laws. These laws turn varieties of plants into the private property of the breeding industry that developed them. However, today, international and domestic pressure for Canada to accede to **UPOV 91** remains an ever-present threat [see box p.16]. Farmers and the public are being told that joining UPOV 91 is required for Canadian farmers to have access to "improved" and innovative varieties. But we do not buy this argument. We are against this type of regulation because it will fundamentally shift the relationship between us farmers and our seeds.

In Canada, the vast majority of field crops are still grown from farm-saved seed. The practice is common and it is done conscientiously. Also, seed-cleaning facilities (run by farmers as commercial enterprises, or as co-operatives) are still available for farmers to use. All of this, however, is under threat from UPOV 91. Under UPOV 91, plant breeders will have the right to collect **royalties** not only on the seeds, but also when farmers sell their crops and even in the processed products. The seed companies would also control seed cleaning and seed storage.

Proponents say that UPOV 91 concedes a so-called "farmer's privilege" that would give farmers permission to save seeds. But this turns an age-old practice and our right as farmers which we now exercise into a "privilege" to be conferred by the seed industry. Moreover, the "privilege" is largely symbolic. It is trumped by other clauses in UPOV 91 that give plant breeding companies almost total control of which seeds are used, stored and processed.

We will persist in protecting our seeds and their use as the fundamental basis of an autonomous, family-based agriculture. As part of educational campaigns, the NFU has created a series of educational fact sheets that allow the public and farmers to understand and follow the developments around seed issues. This allows the public to understand what is important for family-farmers and what actions can be taken in order to protect the right of farmers to use their seeds.

Struggles against GMOs

Another of our struggles in Canada has been to oppose and refuse **genetically modified organisms**, or GMOs. In the late 1990s, together with other organizations we successfully campaigned to stop the introduction of a technology known as "terminator" seeds. This type of breeding technology would have made farmers' seeds sterile, that is, unable to live beyond one life cycle. More recently, in 2004, following our campaigning and organizing with other groups in Canada, the multinational Monsanto gave up on its program of breeding and field research of GMO wheat. This work culminated in the launch of a "Seed Saver Campaign" that included public meetings to generate broader public support.

Today, we are facing a similar situation as we struggle to stop the approval of genetically modified alfalfa. The seed industry claims that there is no danger that genetically modified alfalfa would contaminate our alfalfa plants. However, the experience of contamination with many other crops has shown us that it is inevitable for our fields to be contaminated with these risky plants. Moreover, genetically modified plants are private property protected by **patents**. In the past, many Canadian farmers have been sued and forced to pay if the patented plants crossed with their own and made their way into farmers' fields.

This threatens the livelihoods of individual farmers but will also threaten the market for all Canadian agricultural products that contain alfalfa (e.g. sprouts or health supplements), or that use GM alfalfa in their production (e.g. as feed for livestock or as green manure for soil building). To show their opposition to these threats, thousands of farmers and concerned citizens rallied in over 38 locations across Canada in April 2013. These actions attracted the attention of the national media, of government officials and industry supporters. We have demanded a moratorium on the release and use of GM alfalfa. The NFU and other Canadian organizations will continue to monitor the tactics used by GM industries and our governments that frequently comply with the wishes of economically powerful agribusiness corporations like Monsanto.

Exchanging seeds

Many NFU farmers participate in or organize seed-related activities and events in communities across Canada. For example, they take part in seed exchanges called "Seedy Saturdays" or "Seedy Sundays". In 2012, more than 100 Seedy Saturday events were held, and more events spring up each year. The events are for rural and urban farmers, as well as gardeners. These activities are gaining momentum and have become increasingly popular. Events like these are an important part of encouraging the ability and willingness of farmers to go back to using their own seeds. Workshops on how to save seeds create discussions and learning exchanges

for new and experienced farmers to share technical advice. But the events are also political, because here we share information and develop common analyses about the problems that are putting our food at danger and under the control of corporations. NFU farmers participate in these events frequently. Their message is to emphasize why seeds must be an essential part of an international movement with the goal of creating food sovereignty for people and communities across the globe.

We Produce Seeds and Farmer Resistance in Southern Brazil

Movement of Small Farmers of Brazil (MPA), Brazil

In Santa Catarina State, in Southern Brazil, the Movement of Small Farmers (MPA) is reasserting the value of their "creole" landraces, or *sementes crioulas*, because of the importance of these seeds for the food sovereignty of family farmers at the local and national levels. It is part of a strategy of autonomy.

The work of seed recovery started in 1996, in the municipality of Anchieta. Small-scale farmers and peasants, supported by the Rural Workers Union, began debating the need to organize, and seek alternatives to the use of fertilizers, pesticides and industrial seeds in farming. From then on, they held seminars on the issue. With the support of local specialists, we worked to identify farmers who still maintain their landraces, and to multiply these creole seeds, especially maize, the largest food and commercial crop.

In 1997 and 1998, MPA family farmers recovered eight varieties of local maize: *amarelão*, *cunha*, *palha roxa*, *asteca*, *mato grosso, palha-branca*, *branco* and *cateto*. The goal was to guarantee that peasant farmers had access to these varieties, and were able to choose which seed to use, be it to feed their families, or for fodder, commercial use, craftsmanship, or agroecological systems.

MPA argues that creole seeds should be used by all farmers in the quantities they need. To achieve this, we identified guardian families for the creole seeds, developed participatory research and seed selection, organized groups of farmers to multiply seeds on a scale beyond single communities, and set up the National Native Seed Festival in Anchieta. We also created OESTEBIO, a cooperative for the production and marketing of seeds, with a unit for seed processing (drying, classification by size and storage). Today we support the technical work of other organizations of La Via Campesina International, in Venezuela and Mozambique (see article, p.10). In this way, we struggle in solidarity for community-based food sovereignty.

The guardians of creole landraces are small-scale farmers
The farmers, women and men, who participate as seed guardians maintain one or more creole landraces in their farm or in community seed houses. They are motivated by the strong tie between seeds and food, by diversity, the pleasure and joy of planting, and the economic value of these seeds. To save the most threatened creole seeds we organize family networks that commit to their conservation. Each variety is maintained by three families, which are spread out over the state to foster variability and minimize the risk of loss due to climate change or contamination by **GM seeds**.

After more than 15 years, we have recovered 58 varieties of 17 crop species. The work was carried out by 76 guardians and more than 900 families involved in seed production. The seeds in question include maize, beans, soy, wheat, rice, green manure crops (lupin, rye, black and grey broad beans, cerdo bean), lentils, sunflower and flax.

In 2007 MPA started working on fields dedicated to the sole production of seeds. This involved the production of both local varieties and "registered" seeds. In Brazil, we have an official registration **catalogue**, based on **UPOV's** rules. But we also have a catalogue of a different kind that describes the variety and the region of origin of the seed. This other catalogue does not follow UPOV's rules. Through the cooperative, MPA has permission to multiply seeds from the official catalogue. But these are creole seeds that farmers plant for several years, and not **hybrids**.

The fields for seed multiplication are worked according to criteria that result in quality seeds, free of GMOs. The family farmers who produce seeds receive technical assistance from MPA during the entire process of farming, from the choice of area to plant, cultivation, reproduction and harvesting.

We held our National Native Seed Festival alongside the National Seminar on Farmers' Training in Anchieta. Anchieta is known as the National Capital of Landrace Maize. According to Fabiano Baldo, one of the coordinators of the last festival in April 2012, 84 organizations that reproduce landrace varieties participated. They came from 17 Brazilian states and 13 countries. There was a seed exchange, together with exhibitions and local and international handicrafts. The Festival is organized by MPA farmers, in collaboration with other local organizations. It recognizes the work of guardians, to encourage the movement in defence of landrace varieties, and to reinforce the political aspect of this work, linking it to the struggle for food sovereignty.

Selection of beans for seeds by members of the Movement of Small Farmers, Brazil

Supplying Seeds with our cooperative, OESTEBIO
Cooperation is one of the guiding principles behind the work of the movement. The OESTEBIO cooperative plays a key role in organizing the production of native seeds and of MPA varieties in Santa Catarina. It was created in 2007 with the goal of carrying out the processing, storage and commercialization of the seeds and of other farmer products. It has a presence in the three states of Southern Brazil and counts 331 members (960 families dedicated to seed production). All the planning, seed distribution, technical control, production transport, commercialization of seeds and profits are under its responsibility.

The careful processing of the seeds after the harvest is important in order to maintain the characteristics of the variety for future planting. From beginning to end, the work is carried out by the farmers themselves, both women and men. They dry, classify and store the seeds in their production units. The seeds are dried in a natural way, in the sun. The classification is carried out through the selection of seeds, choosing the seeds from the centre of the maize cob, and storing them in plastic bottles or in small or medium sized granaries.

When the project reached a larger scale in terms of seed multiplication, the artisanal processing of seeds ran up against certain limitations including the availability of workforce, precision in the drying process and the risk of production loss during rainy periods, adequate storage space, and pest control in the storage areas, especially weevils and rodents. When we produce registered seeds we also have to adhere to official size standards, for example. This is not the case with creole seeds.

Building the Seed Processing Unit was essential for overcoming these limitations. The unit is situated in São Miguel do Oeste and can store up to 5,400 tons of seeds. It has six silos and storehouses with a current 3,000 tons of packaged seeds. For members of the OESTEBIO Cooperative, the construction of the unit has permitted the increased use of creole seeds in the region as well as in other parts of Brazil. The goal is the mass distribution of these seeds to small-scale farmers who do not have, or cannot grow their own seeds.

Strengthening our knowledge, culture and farmer autonomy
MPA promotes studies and research in the area of the conservation and selection of creole seeds. We seek allies for the management and sustainable use of peasant diversity. For example, we have good cooperative ties with the Federal University of Santa Catarina. Since 2002 research has been carried out with farmers to conserve and select creole seeds. The university also contributes to the training of specialists and farmers of MPA, especially on issues related to the production of creole landraces, the on-farm conservation of seeds, information about contamination by GMOs, and the **participatory breeding** of creole seeds, among other topics. Technicians and leaders of the movement follow postgraduate courses to improve their work in support of small-scale farmers, by learning, for example, about more efficient techniques to fight contamination by GMOs.

Aside from expressing peasant identity and culture, the use of creole landraces also contributes to farmers staying on their land. According to farmer Geovano Dal Bello: "The main advantage in planting these seeds are reduced production costs of up to 60%. I only use my labour, resources available on my farm and creole seeds. Another advantage is autonomy. With these seeds we are independent from conventional production and we do not rely on the market either. Our quality of life improves." Geovano received landrace maize and bean seeds through a program of simultaneous buying and distribution. The program is carried out by a national supply business together with our cooperative, OESTEBIO. It has given 68,000 small-scale farmer families access to creole seeds, and varieties produced by farmers and organized by MPA. Inclusion in the program allows farmers to add value to the production of seeds on small farms.

The increase in the planting of creole seeds in the region has revived the flour mills that now use landrace maize seeds as raw material for the production of *canjicas*, an important type of ground maize for Brazilian cooking, as well as maize meal and food for animals. According to the farmer Gritti: "The use of creole maize seeds in the flour mills is the pride of many farmers. A large part of the population of Anchieta consumes this maize meal because of its health benefits. Moreover, they know that in the markets you only find transgenic maize grown with pesticides." Gritti is the largest producer of maize meal and yucca in one of the traditional stone mills in Anchieta. He makes his products from the creole seeds of the farmers of the region and of the cooperative.

The work with seeds is carried out on three levels, by farmers on their farms, in the community through the seed houses, and on a larger scale, to confront industry companies. Over time, it has encouraged other organizations to start or continue their own work with *sementes crioulas*. This allows for the rebuilding of local social networks, promotes our culture, reasserts the value of our traditional knowledge and strengthens our cultural identity. We participate less as individuals, than as families and communities. In this way we are a factor in peasant and farmer resistance.

Planting Seeds, Growing Diversity: (Re)Building Communities in the Asia-Pacific Region

Campaign for Conservation and Community Control over Biodiversity, New Delhi, India.

Planting means putting in the ground for growing. Planting seeds is an act of responsibility. It is about being responsible to the Earth, and to what will be harvested from it. It is also an act of relationship-building, not only with the soil, but also with others on the land. The following are contemporary stories from across the Asia-Pacific region. They show people who either never stopped using local seeds, or are beginning to work with them now. In doing so, they are rebuilding not only their food practices but also their communities.

The stories cover three diverse and distant locations in the Asia-Pacific region. One story takes place in rural India, outside Hyderabad city, another in a small town outside Manila in the Philippines, and the third in urban Australia, in the city of Sydney. All of them share a common situation in which farmers' seeds are threatened. Despite their contrasting cultures, landscapes and social settings, in all three cases women come together to sow seeds.

This work has particular significance in the Asia-Pacific region where we are seeing a new wave of seed laws, food policies, and mainstream agricultural research that is having a negative impact on seed keepers and seed saving. The freedom that peasant farmers have long enjoyed— to select, sow, save, exchange and reuse their seeds—can no longer be taken for granted. Seeds are being privatized through **intellectual property** laws. They restrict the use and exchange of seeds by farmers. Therefore, planting seeds of one's own is both an important practice and a strong political statement.

Namaskaram! Bagunnara?
These words mean "Hello! How are you?" in Telugu, the language of Andhra Pradesh. When I greeted an elder woman farmer in this way, she replied that her sense of wellness was related to how well her seeds did that season. And most often, despite all else, they do well. In a small village outside the South Indian city of Hyderabad in the Medak District of Andhra Pradesh, dalit women have been working together in collectives called *sanghams* since 1996. Their seeds have become their identity, an identity as the keepers of seeds and of **biodiversity**.

The women farmers of this region have restored to life their lost crops, bringing the seeds back into memory and use. The women work together with friends from a non-governmental organization, the Deccan Development Society. These *crops of truth*, as the farmers call them, are at the centre of their dryland farming. The most important crops are various types of millets. Every year, the women celebrate the

diversity that they are restoring through a mobile biodiversity festival. With seed displays on bullock carts, they travel through several villages in the Medak district for a full month. Their mission is to promote the revival of millets. Farmers' own seeds often receive little support from the government. Gaining support for farmers' seed varieties is something that Via Campesina organizations such as the Bharat Kisan Union, and those affiliated with it, have been demanding for years.

Seeds of millets and pulses cared for by the women of Medak, India

Krishi Vigyan Kendra (KVK) is a district-level public sector farm science centre. It is one of the few centres in India that share farmers' own seed technologies with local farmers. It is now run by the seed-keeping women in Medak. The women work together with other Via Campesina members in South Asia such as MONLAR, the Movement for Land and Agricultural Reform, Sri Lanka. Together they form part of an Alliance for Democratizing Agricultural Research in South Asia (ADARSA).

The location of KVK is important because the work that is done here is very different from that of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). ICRISAT, a part of the global **CGIAR** network, is located only a few kilometres from the KVK. During the past 40 years, the work in ICRISAT has only marginally addressed the real needs of rain-fed millet farmers. Instead, the Institute's new business model caters to the interests of seed corporations. This is why the farmers of Medak do not recognize the work of this Institute and maintain autonomy over their own seeds.

The farmer women of Medak, like Via Campesina movements across Asia, object to ICRISAT for another reason: ICRISAT maintains a **gene bank**, a storage facility intended for the safekeeping of seeds, although through conservation outside of farmers' fields. Since 1979, this gene bank has been collecting seeds from farmers' fields in Asia, Africa and other parts. Today it contains over 120,000 different

varieties of seeds, especially pearl millets, sorghum, chickpea, pigeon pea, groundnut and six small millets (finger millet, foxtail millet, barnyard millet, proso millet, kodo millet, and little millet). While ICRISAT is under legal obligation to maintain these seeds in public hands, it has partnered with the private sector to help new agribusiness enterprises.

By contrast, the women's *sanghams* (collectives) keep their seeds safe through the use of their own traditional methods. The seeds are kept in the household for the own use of farmers. Also, they are kept in collectively run community seed houses. The women farmers of these collectives demand of ICRISAT: Give us back our seeds!

Kumusta kaibigan?
These words mean "How are you, *friend?" in Tagalog, one of the most spoken languages in the Philippines. This is the greeting you will hear from Magsasaka at Siyentipiko para ang Pag-unlad ng Agrikultura (MASIPAG), or Farmers and Scientists in Partnership for Agriculture Development. This network began in the Philippines in 1986. Via Campesina organizations who work with MASIPAG in Asia know that the on-farm approach they promote is based on friendship with farmers. Working with MASIPAG means taking responsibility for everyone in the network. For example, you can only borrow MASIPAG seeds if you also agree to adhere to non-chemical, non-**GMO** farming, and if you replace the seeds with a little more than you took.*

The key crop for MASIPAG is rice. Together, the farmer-scientist teams have brought back over 1,000 farmer rice varieties of paddy for farmers to use. Many of these rice varieties had been lost or put in disuse with the **Green Revolution**. In the words of Dr Chito Medina of MASIPAG, one of the special qualities of their **plant breeding** work is that they have never requested rice from the nearby International Rice Research Institute (IRRI). This is because they believe that seeds should be in the hands of farmers and under the control of communities. IRRI is one of the main research centres responsible for the Green Revolution in Asia. It also runs another gene bank with many farmers' rice seeds from all over the world.

Farmers do not see seed banks like IRRI as legitimate institutions that meet farmers' needs. They disagree with the expensive storage of seeds in faraway places that are not known or accessible to farmers. The gene banks are not the seed saviours they pretend to be. Also, farmers have become concerned with **genetically modified** crops affecting the seeds stored in banks. This is because IRRI is now involved in developing expensive, genetically modified varieties such as golden rice, a type of rice that is supposed to provide vitamin A. However, farmers refuse these crops because they are risky for human health and the health of their environments. They know that by planting a variety of crops using their traditional seeds they themselves ensure the good nutrition of their communities.

MASIPAG farmers have learned their lessons from the negative Green Revolution experience that imposed chemicals and **hybrid seeds**. Instead, they focus on improving the diversity of peasant farming systems. The Masipag Biodiversity Centre, located in the province of Bukidnon in Mindanao, is a training centre for

local farmers. MASIPAG members have thought through their whole relationship with seeds, from sowing them to selling their products. Like the Indian Medak women in our first story, they have designed their own methods for ensuring the quality of the produce they market. The Biodiversity Centre has also inspired women in Davao City in the Philippines to maintain their food security using farmers' own seeds and their diversity. Moreover, reviving their rice farming cultures has had other advantages: Women and youth organizations have also brought back the old Filipino practice of *bayanihan,* that is, of sharing labour on one another's farms.

Hello Neighbour!

In another country in the Southern Hemisphere, Australia, a new practice is slowly developing. People are coming together to build gardens in neighbourhood plots, in their homes, in school patches and in public parks. Urban farming is more than a passing fad. While farming usually evokes rural landscapes, we must realize that we can also farm in cities. This is especially important as the world becomes increasingly urban, and as the food security of the urban poor and migrants becomes ever more precarious. Forgotten farmers' seed varieties are also making their way into these neighbourhood gardens. In this manner, traditional seeds are meeting the new needs of people.

Even in so-called developed countries there are small but definite efforts to organize urban communities around food. Land is being reclaimed in neighbourhood parks. It is being put to good use to grow not only pretty flowers, but also healthy herbs, fruits and vegetables. An initiative by residents of the Annandale neighbourhood of the city of Sydney is a community garden that is slowly but surely taking shape. Likewise, through people's efforts and those of a Melbourne-based organization, Cultivating Community, new food futures are being imagined and put into reality. In urban settings where people did not previously keep seeds, finding the right seeds to start with is sometimes a challenge. But as people in cities realize that they can also care for seeds, they begin to exchange them with their neighbours and become more interested in how to save them. They are learning to care for and reproduce the rich history of the millennia-old seeds created by farmers.

New food sovereignty alliances are also being forged between Australian groups and the Via Campesina network. Not only Australian family farmers but also urban gardeners are getting involved. Seed solidarities can help reconfigure compasses limited by their North-South axis. With seeds of one's own to sow, and with neighbours—urban or rural—to grow and exchange with, the harvest can only be enrichment. It both strengthens the autonomy of communities and keeps alive our traditional seeds.

Cultivating Autonomy: An Example of Collective Management of Peasant Seeds in France

Association Régionale pour le Développement de l'Emploi Agricole et Rural (ARDEAR) Rhône-Alpes
Réseau Semences Paysannes

Noé, *mottet*, *oulianovska*, *samarcande*, *tuelle de l'Ubaye*, *roussou du Champsaur*, *barbu de l'Aveyron*, *cocadrille*, and *saissette de Provence*... These are some of the 250 types of wheat that are exchanged and cultivated on farms in the Rhône-Alpes region in the south-east of France, to which you can also add rye, barley, emmer, spelt, and about fifteen maize populations. Grouped together in the seed section of the Rhône-Alpes Regional Association for the Development of Agricultural and Rural Work (ARDEAR), which was set up in 2004, around 60 farms from the region save, multiply and spread peasant seeds. Landraces found in the valleys, old selections from seed banks, or blends recreated on farms: they are all variable, evolutionary, and free from **intellectual property** rights. None of them have access to the commercial seed market as they do not meet the criteria for entry in the **catalogue,** or for certification.

The Rhône-Alpes ARDEAR is a farmers' association from the Rhône-Alpes region which was initiated by the *Confédération Paysanne*, and which aims to establish alternatives for small-scale family farming: www.agriculturepaysanne.org

Seeds adapted to and required for small-scale farming

As in other regions of the world, these family farmers have opted for landraces for various reasons, such as:

To no longer have to buy seeds. The project was in part spurred by this. If by buying seeds every year we contribute financially to the research and development projects of companies that develop **GMOs** and other patented plant biotechnologies that we refuse to apply in our fields, then other means must be found to do without these purchases. In addition, this will lighten the burden for often fragile farm finances.

To find seeds adapted to all contexts and practices. Early on in the project, farmer-bakers, stockbreeders and cereal growers tried to come up with seeds that were appropriate for their farms, and which could not be found commercially; seeds adapted to agro-ecological cultivation methods, or altitude conditions, or with a particular aroma for bread, or feed quality for animals, or with a proper straw height for bedding as well as to compete with weeds.

To face climate change. Global climate change is increasingly leading to local upsets. A maximum diversity and variability of plants cultivated on farms leads to a genetic pool capable of coping with change and resulting in regular productions in the face of one-time climate events.

To reintegrate seeds in farming activities. It is also the decision-making autonomy of farms that is at stake with the issue of seeds. By reclaiming seeds, the group's participants regain lost know-how, develop new know-how, and gradually reclaim this aspect of their activities of which they have been dispossessed, giving rise to new farm models downstream from seeds.

To rediscover the pleasure of doing your work. Beyond the advantage in terms of autonomy, you gradually start liking these cereals, their colours, their posture and behaviour: they grow on you. Too bad if a few geneticists and modernists laugh at the notion. Restoring a pleasant and sensitive dimension to small-scale family farming is no trivial matter in the current agricultural context, with its dramatic drop in the numbers of women and men farmers in France and Europe.

A collective preservation of diversity on farms

The network is run by those who participate in it: "collection" plots are cultivated on farms to maintain, observe and discover seed varieties. Then everyone multiplies, blends and selects those that suit them until production autonomy has been reached: eight years after the start of the project, more than ten farms no longer buy seeds and only use these varieties of straw cereals or maize. These plots also help support open visits for other interested parties. Technical training courses on the production, transformation, and regulation of seeds are organized within the group. Men and women family farmers of the Rhône-Alpes ARDEAR work on various projects of **participatory breeding.** They work with researchers on wheat populations and on the taste qualities of bread made from land wheat, and with an independent technician on the creation of maize population blends. Seed exchanges are held in the autumn for cereals and in the spring for maize.

Learning to select the seeds of peasant cereal landraces

The seed stocks are all kept on the farms. Interested people can contact the association for information on small-scale farmers who live nearby, or who have similar production contexts, after which they can receive seed samples, discover

past experiences and current agricultural projects, and create links. The purpose of making people go through the farmers themselves is to prevent the disassociation of the seeds from the related know-how and social dynamics, without which the seeds lose their meaning. This decentralized mode of operation ensures the preservation of maximum autonomy. A salaried employee coordinates the exchanges and actions, but it's the farmers themselves who manage diversity through their practices.

Regulatory developments and mobilization in France

In 2003, Europe authorized anew GMO crops, while the on-farm conservation of peasant seeds was not recognized in France. There were daily checks aimed at prohibiting small-scale farmers from cultivating varieties not accepted in the official catalogue, and from selling these crops or exchanging these seeds, especially among organic farmers monitored by their certifying bodies. The French Kokopelli association was being prosecuted for the sale of seeds from varieties not entered in the catalogue, and a government decree had just implemented a type of tax (the Mandatory and Voluntary Contribution), directly levied on the sale of the crops of farmers who used their own farm-saved seeds of soft wheat, and to be paid back to the seed industry.

Ten years later, thanks in particular to the Voluntary Reapers, who are active in destroying GM fields, and the numerous associations that combat GMOs, there are still no transgenic GMOs cultivated in France. Nevertheless there are other threats from new types of patented GMOs that are neither regulated nor labelled. But the new GMOs have been put under "environmental" surveillance following actions by the Voluntary Reapers.

The recognition of non-standardized peasant varieties is now enshrined in the law. Family farmer networks such as the RSP are recognized as "actors in the on-farm conservation of plant genetic resources". Small-scale farmers who exchange seeds for the purpose of selection and/or conservation of their own varieties, and who cultivate and sell such crops, as well as artisan seed producers who sell seeds of varieties not entered in the catalogue for the purpose of subsistence agriculture ("amateur gardening" in France), are no longer prosecuted.

In late 2011, a **UPOV** law [see box p.16] was approved by the French parliament. It aims (1) to prohibit the use of farm-saved seeds, or to only allow it for 21 "exempted" species through the payment of **royalties** to **plant breeders**, (2) to check all farmers who produce their own seeds by forcing them to register, (3) to submit them to the same sanitary and GMO analyses as the industry, (4) to extend to subsistence agriculture the regulations on seeds for commercial agriculture, (5) to prohibit peasant varieties that are not very uniform or stable. The seed industry is trying to dictate to the European Commission a new UPOV law with the same aims as the French law, while favouring the commercialization of seeds from patented plants. Faced with the multiple protest actions coordinated by the "Let's sow biodiversity" coalition, the French government has yet to apply the new UPOV law. More than half of the main agricultural crops (cereal, forage, and protein crops)

still come from farm-saved seeds. The European Parliament has adopted a declaration requiring a limit on the scope of **patents** on plants.

For its part, the European Commission has just published a new draft regulation on seeds in Europe. Patented seeds will be able to invade the market and contaminate peasant seeds. Under the pretext of sanitary risk, small-scale farmers will have to declare which seeds they use, and will be open to prosecution for the prohibited use or exchange of farm-saved or peasant seeds. But passing a law is one thing, and applying it, quite another. Be they legal or disobedient, no one will succeed in stopping peasant seeds!

Working in a network against the agro-industrial model

The project of the Rhône-Alpes ARDEAR could not have developed in such a manner if it had not found other collectives with which to mutualize seeds and experiences, and work together against regulations that increasingly attack the rights of small-scale family farmers. These encounters were especially facilitated by participation in the Peasant Seeds Network (*Réseau Semences Paysannes*). In 2005 the Rhône-Alpes ARDEAR joined this network that was created in 2003. "It's the network that brought us where we are, in terms of the monitoring and understanding of regulations, the search for experiences elsewhere, and the discovery of modes of operation."

The number of family farmers cultivating peasant seeds in France increased from somewhere between 200 and 300 in 2003, to several thousand today. The turnover of artisan seed producers who sell traditional seeds to gardeners is rocketing, and peasant seed houses are mushrooming all over the country. This strong growth could not be explained without the legal victories achieved through the actions of the Peasant Seeds Network.

Moving production and reproduction closer together: a vision of this developing autonomy

The example of seeds, both on the ground and through its national and international scale, is now giving ideas to others, especially in animal breeding. Indeed, the reality of animal selection resembles that of plant selection. Here too you see a predominance of a few races that have been hyper-selected according to production criteria, together with the erosion of diversity, genetic reductionism, and specialisation. To deal with this, women and men breeders have decided to regain control over the selection and restocking of their herds, in juggling various actions such as the preservation of diversity on farms, the strengthening and exchange of peasant know-how on selection, and resistance to administrative measures that dispossess small-scale farmers of the management of their herds.

The history of the Network of Peasant Seeds:
The Rhône-Alpes ARDEAR is one of 70 member organizations of the Peasant Seeds Network (RSP). Created in 2003 on the initiative of the Confédération Paysanne and French organic farming organizations (FNAB, MABD, and Nature et Progrès), RSP groups together a large diversity of collectives and people who select, cultivate and spread peasant seeds in the fields, orchards, vineyards and gardens, and that include: farmers' unions; artisan seed producers; local groups of family, organic or bio-dynamic farming; gardeners' associations; environmental, citizens' and international solidarity organizations, natural parks. The primary mission of RSP is the networking and coordination of the actions of its members. Nothing comes from the top. The activities all expand on and grow richer from one another, and include: visits of demonstration farms, encounters, forums, seed exchanges, trainings, an internet database in which everyone can describe their plants and work. RSP supports the development of peasant seed houses, a new type of local organization in which small-scale farmers, gardeners and consumers manage collectively the selection, multiplication and conservation of the seeds they need. The network participates in numerous scientific programmes involving peasant seeds, including participatory selection, dynamic management, and technical, social and legal expertise. Science is enriched by the know-how of family farmers while the practice of these famers is enriched by the contribution of researchers who are prepared to leave their laboratories. The scientific recognition which is gained in this manner is the prerequisite for legal recognition. For this purpose, RSP has also initiated, in partnership with its twin organization on GMOs, a "legal seed watch" which makes available to civil society the legal and regulatory expertise required to understand the stakes involved in seeds. This work feeds off and contributes to the social and lobbying mobilizations organized in France within the "Let's sow biodiversity" coalition of family farmers', citizens' and environmental organizations facilitated by the Confédération Paysanne and RSP network; in Europe within the "Let's liberate diversity" coordination, partner of La Via Campesina Europe (ECVC), IFOAM Europe (organic farming) and the defenders of traditional seeds; and at the global level, within the International Planning Committee on Food Sovereignty (IPC). www.semencespaysannes.org

From the Hands of Women, Recuperating and Rescuing Seeds: Re-establishing Love and Respect for the Land and for Life

Latin American Coordination of Rural Organizations - Vía Campesina (CLOC)

The attack on our seeds is the biggest criminal action imposed by agribusinesses. In addition to producing contaminated food, without nutrients, the industry has deprived us of access to food that has ancestrally been part of our diet and culture.

The seed campaign within CLOC
In the Latin American Coordination of Rural Organizations (CLOC), we have directed most of our work to the recovery and defence of our seeds. We put the leading role of women from the peasant and indigenous communities at the centre of our actions. These women have emphasized the consequences that the loss of a huge variety of seeds has had on peasant communities, as the main source of food for their villages depends on the production and multiplication of those seeds.

Ever since La Via Campesina launched its campaign in defence of peasant seeds in 2001, our central strategy has been local action and the creation of a strong process of building allies, from local to international. These allies, linked to the worldwide campaign for "Seeds, heritage of the people for the good of humanity", have continuously contributed to our struggles with political content and proposals. Food sovereignty is the central axis for the respect and fulfilment of the fundamental right to food of communities.

Our activities are headed in two closely related directions: the recovery, protection and preservation of peasant seeds, as well as the appreciation of rural and indigenous lifestyles and spaces. These are ways to defend and take care of social, cultural and natural diversity, which are fundamental to life. By recovering a broader view, more integrated in the rural world, with a strong focus on the ties of identity and on the existence of indigenous communities and their cultural heritage, we have been able to forward the education of a new generation of aware and socially integrated farmers.

We have also carried out protests against the use of **GMOs**. This is an ongoing task to clarify and inform about the significance and threat which science at the service of capital represents for peasant farming, seeds and food. We have responded to the offensive of GMOs with agroecological production, mainly among women who exchange practices, seeds and knowledge related to seeds.

Our resistance is directed at rejecting all forms of appropriation and privatization of seeds which during the past few years have led to new laws and especially an attempt to impose **UPOV 91** in all Latin American countries.

Our actions and the campaign aim to link our strategies of struggle to preserve the environment, by sensitizing urban and rural populations in order to put a halt to the pillaging of our natural wealth. This has been achieved by carrying out multiple activities such as educational workshops, seminars, seed and biodiversity festivals, and exchanges of seeds and knowledge.

Women in Ecuador grow a wide diversity of tubers

Discover, talk and recover

In our experiences we have happily discovered new paths. For example, we discovered that seeds are a meeting point that allows our different ways of celebrating and our spirituality to come together synchronously. We discovered that seeds help us create new ties among us women from the countryside, but also with people from the city. They also allow us to recover and recreate different ways to conserve and save seeds, and to transform them into a tool for struggling, for political education, for recovering values, for ethical and cultural principles – a source of hope and strength at a time when we seem to be surrounded by darkness.

In this way, the seeds and the activities around the Seed Campaign have been transformed into a message of hope that tells us we still have a soul. The conversations that seeds help initiate allow us to break away from the technocratic and distant language that is sweeping over us. Seeds give us back our own language.

We have reasserted the role of communities in food production and in the generation of cultures, putting into practice clean farming, making a priority of the cycles of planting, harvesting and seed selection, recovering knowledge and ancestral science, promoting the construction of local and community based seed houses. All of this is framed by the recovery of productive systems that include the knowledge and culture of peasants and have food production as their main goal.

At the same time, we have moved forward in perfecting our agroecological vegetable gardens, considerably increasing the production of healthy and nutritious food for a significant part of the population. The population is also becoming more aware of the current productive model imposed by the food trade of multinational corporations.

As a result, the recovery of local varieties has been considerable and hundreds of varieties of potatoes, beans, peas, quinoa, broad beans, tomatoes, fruit trees, medicinal and aromatic plants, as well as a variety of vegetables have been shared and recovered. The native potato has been recovered in Bolivia, and the yucca in the Dominican Republic. The large majority of seeds had been conscientiously and carefully kept in women's vegetable gardens. Therefore, we have gradually been able to create native seed reserves, to recover and protect our peasant farming ways, to revitalize our culinary traditions and markets, and to create and share our knowledge, science and technology.

Towards the future

The Seed Campaign has shown that people want and need to learn, to share and to be informed. With much interest and respect they listen to the voices of our wise women and men, of those who protect our water and mountains, because they are sending a message of life and hope, especially to young adults and children.

There is no doubt that the thousands of actions around the campaign and the struggle for food sovereignty have helped us become more visible and have resulted in our role as farmers being more valued. At the same time we are strengthened and stimulated to move forward by the recognition that part of society has granted us for our historical role in developing the farming culture of which we have been the main characters. The validation of our knowledge and practices, in our own eyes, in the eyes of our families and communities, and within the organization, has improved our self-esteem and has given us an important and strategic place in the transformation of our society and within La Via Campesina.

As peasant and indigenous women we define ourselves as women with history, culture and roots in the earth. Our main goal is to recover the original bond that we all have as people with mother earth, which is a bond of love and respect. Our chosen path is to conserve and recover seeds and natural resources, and to help bring about an agroecological production of food in order to achieve food sovereignty and a dignified life.

It is proven that we must go back to taking care of what is ours, go back to the sacred aspect of life, the sacred aspect of the earth. The most important lesson for us all is that we have to take steps towards the past in order to move forward and to grow freely with an autonomous, healthy and nutritious food supply. To be sovereign means enjoying autonomy, with knowledge, fortitude, and a good social organization, as well as the right to make decisions without any undue pressure about what to produce, how to produce and for whom to produce. It also implies the responsibility of organizations to inform, create networks and come together with other sectors and community-based organizations.

Today we can affirm with pride that we can count on many informed women and communities, with increased awareness on the issue of seeds, the recovery of traditional systems, the management of planting and its time periods, the treatment of natural waste for reuse as organic material, and the care of the land as a living organism.

There are thousands of local experiences where hope grows day by day because we are expanding our knowledge, exchanging seeds, sharing practices and once again producing healthy, nutritious, tasty foods with tempting smells that invite us to savour anew what our grandparents used to eat, the product of our vegetable gardens, with the smell of country air and beautiful colours. This is the magic of our seeds transformed into food that guarantees the life of humanity. Peasant seeds in resistance! Struggles and life of the people!

Glossary

Biodiversity— 'biodiversity' became a very popular term in the past few decades for describing the diversity of plants (or in general of living beings) found in nature or reproduced by peasant families. Industry is very interested in this diversity as it is the basis of their **plant breeding** work. But by creating a handful of highly homogenous, standard varieties, industry is not able to create or to conserve biodiversity.

CGIAR— The Consultative Group on International Agricultural Research or CGIAR is a network of institutions that carry out research in **plant breeding** and that played an important role in pushing forward the **Green Revolution**. The CGIAR institutions frequently also run various international **gene banks**. CGIAR is financially supported and controlled by institutions such as the United Nations, the World Bank, and large foundations such as Rockefeller and Bill Gates. Moreover, there is now more and more cooperation between CGIAR, the private sector, industry and agribusiness.

Contamination— Contamination describes the fact that **GMOs** can cross with non-GMO plants, contaminating them. Today, the contamination of peasant seeds through **patented** plants is on the rise, given the growing tendency of laws to allow the patenting of non-GMO plants.

Gene Bank— a gene bank is a place for storing seeds under controlled conditions (cold temperatures, low humidity) in order to conserve them as long as possible. There are public and private gene banks. The vast majority of seeds in these banks are of peasant origin and they are the basis of all scientific **plant breeding**. Gene banks can complement seed conservation in the fields of farmers, but unfortunately, present strategies are doing exactly the opposite: They give priority to locking up seeds in banks at the same time as these seeds are eliminated from the fields. The seeds in gene banks are not easily accessible to peasant communities nor do they tend to respond to their needs.

Genetic Resources—This term is used to refer to seeds and also to the other living beings that are increasingly considered to be not only as resources, but private commodities used by industry. In the context of our peasant agriculture, we can simply refer to them as 'seeds'.

GMOs— 'Genetically Modified Organisms' are crops that have been modified at the molecular level (see **molecular biology**). Using these techniques it is possible to transfer very small substances called molecules between organisms in a way that does not take place in nature. For example, such substances may be transferred between plants and bacteria. But GMOs can also be created in other ways, even in the there is no exchange between species. All of these transformations are **patented** by the industry that develops them. Therefore, industry may demand the payment of **royalties** for the use of GMO seeds.

Green Revolution— Throughout the 20th century, the green revolution was a process that replaced peasant seed varieties with the varieties of scientific **plant breeding**. These varieties have also been referred to as 'high-yielding varieties'. Nevertheless, in order to achieve the high yields, green revolution crops depend on chemicals derived from fossil sources and they create dependency on industry. These industrial varieties have ruined soils, have replaced farmers by machines, and have damaged the health of the fields and of human beings. All of these policies resulted in a significant loss of peasant seeds around the world. The seeds have been lost forever although some of them are still found inside **gene banks**.

Hybrids— hybrid plants are highly sought-after in scientific **plant breeding** programs. Hybrids are based on crossing plants in such a way that the characteristics they were marketed for only appear in the first harvest. This makes it useless to keep the seeds for the following season. Although they are expensive to develop, the fact that hybrid seeds guarantee that the seeds will not be reused is a great advantage for the seed industry. This is why there exist hybrids for many crops, including the most common vegetable varieties as well cereal crops.

Intellectual Property— intellectual property is a type of private property. The term 'intellectual' emphasizes the scientific knowledge used to modify living organisms. In the context of seeds, property is guaranteed through laws that recognize either **patents** or Plant Variety Certificates (see **Plant Variety Protection**). But it is important to emphasize that men and women peasant farmers also have a profound knowledge of seed selection. Yet in the context of peasant seed selection, seeds are not private property: Seeds belong to the ensemble of the farming communities and peoples that care for them.

Molecular biology— In the context of the scientific manipulation of plants, molecular biology works at a very small scale, even smaller than that of a cell, manipulating substances that are invisible to the naked eye. These types of manipulations take place in laboratories. In order to create **GMOs**, these very small substances, called molecules, are transformed using various molecular techniques. Although not all of the molecular transformations are officially considered GMOs, they present unknown risks and can therefore be considered to be hidden GMOs.

'Monsanto Laws'— This is a term used to describe the very restrictive laws associated with the **UPOV** convention of 1991 (UPOV 91). The 1991 version of this convention is particularly limiting to the sovereignty of men and women peasants over their seeds (see also text box UPOV, p.16).

Participatory Plant Breeding— participatory plant breeding is based on cooperation in order to develop new varieties of crops. In contrast to **plant breeding,** the goal is that both scientists and farmers participate in order to develop new varieties, taking advantage of their different but complementary knowledges. For participatory breeding to work well, it is important that farmer communities are allowed to make decisions according to their own needs.

Patents— patents guarantee private property over seeds that are considered to be new 'inventions'. This prevents other people or industries from using or selling the "invention' during a period of 20 years. In a similar manner as **Plant Variety Protection,** patents give property rights not only over seeds but also over the harvested and even processed crops. But in contrast to plant variety protection, patents prohibit the use of patented crops in order to develop another crop. GMOs tend to be protected by a **patent**. Plant variety protection and patents developed as two different systems, but today they tend to complement each other in guaranteeing property rights over living organisms.

Plant Breeding— plant breeding uses scientific techniques to develop new varieties of crops. In contrast to seed selection which has always been carried out by peasants, seed breeding is based on sophisticated plant crosses that result in crops with characteristics such as adaptation to machinery, processing, and industrial distribution (homogeneity of the harvest lots entering the market). Breeding is often carried out by the seed industry but there are also public seed breeders. Breeding produces very homogenous crops that are farmed in standard conditions with regard to irrigation, chemical inputs etc.

Plant Variety Catalogue— registration in the plant variety catalogue is an important condition for the commercialization of seeds in the majority of countries that recognize the UPOV system. Two important criteria in order to register a variety in a plant catalogue are homogeneity and stability (is this means that each plant should be identical to one another, year after year). This creates a barrier to the commercialization of peasant seeds which adapt to soils generation after generation and that are therefore neither homogenous nor stable.

Plant Variety Protection— plant variety protection is a legal system that gives property rights to plant breeders over seeds. This system is different then the **patent** system but both are examples of so-called **'intellectual property'.** Countries issue a plant variety certificate that prohibits farmers from reusing their seeds or demands the payment of **royalties**. The protection of plant varieties exists at the level of each country and at the international level is regulated by **UPOV**.

Royalties— according to the system of **Plant Variety Protection** or **patents,** royalties are payments that industries charge when the crops that they bred are used.

Seed Treaty— the United Nations Seed Treaty exists since 2001. It facilitates access to public seed collections (such as those of **CGIAR** or other **gene banks**). But the Seed Treaty was not created to give access farmers. Those that benefit from the Treaty are industry or scientific **plant breeding** programs. The treaty recognizes farmers' right to conserve, use, exchange and sell their seeds. But this is not an international right because it is subject to national laws. Private property over seeds goes against these rights because **patents**, **plant variety protection**, and plant **variety catalogues** control the use, exchange and selling of seeds, even in cases in which the seeds themselves are not directly protected by the laws.

UPOV— (from the French acronym for, Union pour la Protection des Obtentions Végétales, or the International Union for the Protection of New Varieties of Plants). This institution joins the countries that recognize **plant variety protection** laws. Member countries guarantee breeders' rights for developing new varieties of plants. Recently many countries of the global South were pressured to become UPOV members in the context of free trade agreements or bilateral agreements between those countries and the United States or the European Union. There exist various versions of this convention. The majority of member states have joined UPOV under the most recent version of 1991 which strongly limits the autonomy of men and women farmers over their seeds. Frequently the highly restrictive and even punitive laws of UPOV 91 are referred to as "**Monsanto laws**" in reference to the transnational company bearing the same name that controls a great part of the industrial seed market (see also text box p.16).

Bean seeds

La Via Campesina is the international movement which brings together millions of peasants, small and medium-size farmers, landless people, women farmers, indigenous people, migrants and agricultural workers from around the world. It defends small-scale sustainable agriculture as a way to promote social justice and dignity. It strongly opposes corporate driven agriculture and transnational companies that are destroying people and nature.

La Via Campesina comprises about 150 local and national organizations in 70 countries from Africa, Asia, Europe and the Americas. Altogether, it represents about 200 million farmers. It is an autonomous, pluralist and multicultural movement, independent from any political, economic or other type of affiliation.

More on www.viacampesina.org

20 Years

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