Agro ecology
A contribution to food sovereignty
Agroecology

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Articles published in the months of September and October of 2013.
Compendium prepared in June 2014.

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Produced by:  
Published thanks to support from:
In response to the food crisis that the world is facing, peasant and social organizations are developing proposals that suggest changes to the current food and agricultural systems to be able to achieve food justice while facing the challenges of climate change.

For organizations such as Friends of the Earth, a positive restructuring of land is necessary, shifting from intensive, large-scale agriculture to ecologically adequate and diverse systems. Through this perspective, agroecology is viewed as a way of life that recovers the ancestral knowledge of the communities and promotes barter as a model of social and solidarity economy.

Agroecological practices include the restoration and care of native seeds as a food sovereignty and security strategy, highlighting the protagonistic role of women and the importance of family agriculture.

There are many projects in Latin America that aim to promote agroecology to support food sovereignty. In the following publication, we will discuss these experiences, their achievements and their challenges.

—Latinamerica Press Editorial Team.
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The long battle to preserve ancestral farming practices

Agroecology, fair trade, responsible consumption and the protection of native seeds are some of the practices that Mayan farmers have rescued from their ancestors.

Mayan farmers of the Cuchumatanes mountain range in northwestern Guatemala know that organic farming requires hard work, patience and dedication but is the only road to sustainable development.

In 2006, these farmers decided to abandon intensive agriculture, which involves the use of pesticides and chemical fertilizer, as they realized that it boosted crop yields in the short term with seemingly little effort but polluted water sources and depleted the soil in the long term. They then founded the Association for the Sustainable Development of the Huista Commonwealth (ADSOSMHU).

The mancomunidad, or commonwealth, is an association of municipalities that share the same history and culture and work together to implement common policies and build infrastructure projects for the benefit of all members.

Mancomunidades were officially recognized by the Guatemalan government when the Municipal Code was approved in 2002.

Mancomunidad Huista is one of Guatemala’s oldest commonwealth associations and groups together seven municipalities located in the department of Huehuetenango: Santa Ana Huista, San Antonio Huista, Concepción Huista, Nentón, San Miguel Acatán, Unión Cantín, Jacaltenango and La Democracia.

With financial support from Spanish NGO Paisaje, Ecología y Género, ADSOSMHU built a demonstration center where farmers can purchase native seeds to grow corn, beans, vegetables such as mushrooms and...
pumpkins, and medicinal plants such as aloe. They also learn how to care for aquarium fish and how to produce compost made from decomposing leaves and soil, worm compost, and a foliar fertilizer made from fermented leaves, water and cow's milk.

Organic fertilizer

Producing organic fertilizer is a lengthy process as composting can take up to six months, worm compost takes between one and two and a half months, and foliar fertilizer, the quickest method, can take up to a month.

“When the Green Revolution began in the 1950s and 1960s, farmers began to use agrochemicals as we were led to believe that agrochemicals were the solution to our problems. Using chemical pesticides, farmers can clear 0.03 acres in one day as opposed to 0.005 acres in five days using ancestral farming techniques,” explains Rubén López Herrera, coordinator of ADSOSMHU.

“In the beginning, [agroecology] requires a lot of effort, patience and dedication. That’s why women have been most receptive to the idea. We only obtained results after two or three years but from that point onwards we obtained higher crop yields than we had achieved when we used agrochemicals, the soil recovered its nutrients and our products have a different color, taste and texture,” he adds. ADSOSMHU’s members consume most of what they produce and any surplus is sold in local markets.

López emphasizes that agroecology is nothing new as it has been practiced by Mayan farmers since pre-Columbian times, an assertion that has been proven by academic research.

For instance, Professor of Agroecology Stephen Gliessman, of the University of California, has written a number of articles in which he explains how the ancient Mayans were early practitioners of ecological engineering. As they lacked the technology to reach groundwater they built drainage canals to redirect and reuse rainwater and convert seasonal swamplands, known today as bajos, into large agricultural fields. They also used agricultural terraces, water reservoirs, raised fields and planted urban gardens.

ADSOSMHU is one of the 60 campesino groups that belongs to the National Network for the Defense of Food Security and Food Sovereignty in Guatemala (REDSSAG), a national organization founded in 2004 that seeks to promote agroecology, fair trade, responsible consumption and the protection of Mesoamerica’s native seeds.

In 2011, ADSOSMHU received the Ministry for the Environment and Natural Resources’ (MARN) Chajil Uwachulew (Defender of Nature) Award for its efforts to preserve native seeds. However, López says that other than this symbolic award, ADSOSMHU has never received any government support.

“There are many things that need to be done. We’d like to carry out an in-depth investigation that will allow us to recuperate native corn and bean seeds and we’d also like to receive support from agricultural technicians so that we can improve our crops but they (the government) are very bureaucratic,” López explains.

REDSSAG’s coordinator, Ronnie Palacios cites successful projects in Brazil, Venezuela and other South American countries as evidence that agroecology works and says that this model could help Guatemala to reduce its dependency on corn and wheat imports, stimulate self-sufficiency and employment in rural areas and reduce the surge of impoverished farmers who migrate to urban areas or to the United States in search of better living conditions. However, Palacios says that so far, the government has shown little or no interest in supporting Mayan agroecological practices.

“It’s necessary to prioritize subsistence farmers and farmers living below subsistence levels and develop mechanisms to exchange information and carry out scientific investigations. Unfortunately there’s been no support. We’ve sought help from the Institute of Agricultural Science and Technology (ICTA) but they’ve refused to initiate an investigation.

“We only obtained results after two or three years but from that point onwards we obtained higher crop yields than we had achieved when we used agrochemicals, the soil recovered its nutrients and our products have a different color, taste and texture.”

— Rubén López Herrera
The Ministry of Agriculture, Livestock and Food (MAGA) has a family orchard program and we’ve proposed that it should include agroecological production but they rejected it (the proposal),” he says. Palacios says that “economic interests” could explain the government’s reluctance to stop handing out chemical fertilizer and help farmers to revive the agroecological model of the ancient Mayans, a remark that makes sense given that Disagro and other major agrochemical producers have been key campaign donors over the past few years.

The Campesino a Campesino Movement

Eric Holt-Giménez, executive director of Food First, an US nonprofit organization whose main goal is to forge food sovereignty for human rights and sustainable livelihoods, explains that during the 1970s, Mayan farmers who had become heavily indebted in order to purchase Green Revolution technology were forced to migrate to coffee, sugar and banana plantations where they earned miserable wages and had to sell their labor in order to repay their loans.

A farmer in the department of Chimaltenango (35 miles west of Guatemala City) began to experiment with organic farming techniques and realized that he could increase his yield by up to 400 percent. Other farmers sought to follow his lead and began to rescue ancestral Mayan practices that were then passed on from one farmer to another. Farmers who taught other farmers were known as promotores campesinos, or campesino promoter, and this chain of learning by example marked the beginning of a movement known as Campesino a Campesino, which rapidly spread across Guatemala, Honduras and Nicaragua.

“Farmers established cooperatives to sell their produce and stopped going to the coast to work on the plantations. In the 1970s and 1980s they were so successful that they started to buy land from the plantation owners who began to call them communists and called in the army, so they fled to Mexico and began to El Ministerio de Agricultura, Ganadería y Alimentación (MAGA) tiene un programa de agricultura familiar y hemos propuesto que incluyen la agroecología pero no lo han aceptado.aching the peasants there,” says Holt-Giménez.

The Campesino a Campesino movement has dwindled as a result of the bloody civil wars that tore Central America apart during the Cold War era, although local NGOs such as ADSOSMHU are seeking to revive it and give it a new impetus.

According to “Measuring farmers’ agroecological resistance after Hurricane Mitch in Central America,” a study conducted in 2000 by World Neighbors, international development organization that works with extremely poor communities who are struggling to survive, today, less than 0.5 percent of the region’s four million smallholders practice agroecology.

The sustainable practices most commonly used include intensive in-row tillage, the use of compost, vermiculture and animal manure, as well as integrated pest management strategies that include the use of traps, organic pesticides and repellents, and beneficial insects.

The farmers themselves, led by Holt-Giménez, carried out the research and found that agroecological plots on sustainable farms had more topsoil, higher field moisture, and more vegetation, which meant that after Hurricane Mitch hit Central America in 1998, they had a 49 percent lower incidence of landslides and averaged 47 percent less rill erosion and 69 percent less gully erosion than conventional plots.

“It was crop diversification and agroforestry what made the system so resilient and allowed it to withstand climate change.”

— Eric Holt-Giménez

“It was crop diversification and agroforestry what made the system so resilient and allowed it to withstand climate change. However, governments don’t support peasant agriculture and this has only gotten worse because of the free trade agreements designed to drive farmers off the land and open up Latin America to foreign investment. Governments need to start practicing food sovereignty and go back to policies that worked in the past to achieve self-sufficiency,” says Holt-Giménez.
Organizations join forces to strengthen the fight for food sovereignty.

Food is not a commodity but a human right, recognized by states through different legal instruments. By recognizing this right, states have the obligation to respect, protect and guarantee the people’s right to food — especially of food producers — to guarantee the right to decent work and employment as well as to a fair wage, based on the principles of social justice and human dignity,” states the declaration of the First Assembly of the Alliance for Food Sovereignty of Latin America and the Caribbean. The meeting, held on Aug 6 and 7 in Bogota, Colombia, was called by various regional organizations engaged in the fight for food sovereignty, including the Latin American Coordination of Rural Organizations-La Vía Campesina, the Agroecological Movement of Latin America and the Caribbean and the Pesticide Action Network, among others.

Representatives of 23 Latin American and Caribbean networks, movements and organizations, and of 11 Colombian organizations, concluded with the Alliance creation process, an initiative launched in 1996 at the Second International Conference of La Vía Campesina in Mexico. The main commitment is to “take forward the fight for food sovereignty, considering it a principle, vision, legacy, right and duty built by indigenous peoples, peasants, family farmers, artisanal fishermen, women,
afro-descendants, youth and rural workers that has become an umbrella platform for our struggles and a proposal for society as a whole.”

Other commitments include the defence of territories against hoarding, extractivism, privatization of state assets and large-scale agribusiness.

Agroecology was chosen as “a way of life that recovers all we have lost, a connection with ancient knowledge,” as it rescues local markets and knowledge of communities, raises debate about the prices and encourages exchange and barter as a model of a social and solidary economy based on sustainability, redistribution and reciprocity.

“It is an alternative proposal to the climate change that mainly affects local food producers,” states the declaration.

One of the achievements of the institutions that make up the Alliance is that international organizations such as Food and Agriculture Organization of the United Nations (FAO) agreed in 2012 to discuss food sovereignty understood as “the right of people to control their own seeds, land, water and food production, ensuring through local, autonomous (participatory, community and shared) and culturally appropriate production, consistent and complementary with Mother Earth, the peoples’ access to sufficient, varied and nutritious food, deepening the production of each nation and people.”

The FAO defends food security to overcome hunger in the world. La Vía Campesina, however, believes that it is not enough for food to be available, accessible, sufficient and safe. The organization is trying to achieve food sovereignty through “giving priority to local production and consumption of food.”

Since 2008 there has been an increase in international food prices, which has led to nearly 50 million people in Latin America and the Caribbean (8 percent of the total population) suffering from hunger. According to the FAO, the situation “is not a result of insufficient production or lack of food supply, but it is fundamentally due to a lack of access to food of an important sector of the population that does not have enough income to acquire food.”

Some 80 percent of farmland in Latin America and the Caribbean are family farms, according to the FAO, that has declared 2014 International Year of Family Farming.

“The objective of the Alliance is to be the instrument of unity for people fighting for food sovereignty as a significant example in building a new social model, based on the Good Living and on the sovereignty of the people,” the declaration states.
Small farmers win Food Sovereignty Prize

Haitian team recognized for fighting for food democracy by promoting safe, healthy agricultural practices and advocating for peasant farmer rights.

The US Food Sovereignty Alliance announced Aug. 13 that a team of Haiti’s five largest peasant organizations won the fifth-annual Food Sovereignty Prize, an honor granted to grassroots groups for creating projects that create “food democracy” and combat hunger and poverty.

Food democracy refers to “bottom-up, communal and cultural approaches to deal with hunger and poverty,” according to Charity Hicks of the Detroit Food Justice Task Force, a group that sponsors the prize. Selected from 40 applicants, Haiti’s winning team represents more than a quarter million Haitians and fights for food democracy by promoting safe, healthy agricultural practices and advocating for peasant farmer rights.

The team known as “the G4 and the Dessalines Brigade,” consists of Heads Together Small Farmers of Haiti (Tèt Kole), the Peasant Movement of Papay (MPP), the National Congress of Papay Peasant Movements, the Regional Coordination of Organizations of the Southeast Region, and the Dessalines Brigade — named after the 19th-century Haitian independence leader Jean-Jacques Dessalines — and is supported by La Vía Campesina, or the International Peasant’s Movement.

According to the Food Sovereignty Prize website, merit for the award is also based on creating global ties and prioritizing the leadership of women, indigenous people, migrant workers and other “food providers marginalized by the global food system,” which the winner was thought to achieve by means of its widespread alliance.

Since 2007, the group has been working to rebuild Haiti’s environment stricken by hurricanes and 2010 earthquake, end poverty and preserve the Haitian Creole seed. Three years ago, the MPP rejected a donation of genetically-modified seeds by the US agricultural giant Monsanto, saying the transgenic seeds would contaminate native crops and threaten Haiti’s precarious food security and sovereignty.

“The Food Sovereignty Prize symbolizes the fight for safe and healthy food for all peoples of the earth.”

— Chavannes Jean-Baptiste

Honorable mentions for the prize included farmers’ organizations in India, Mali and the Basque Country. Last year, the award went to The Korean Women Peasant’s Association, and in 2011 to The Landless Workers of Brazil.
Ancestral knowledge to cultivate the land
Tomás Andréu / San Salvador

Agro-ecological practices include the use of native seeds, organic fertilizer, biological pest control, crop rotation, and respect of the ecosystems.

There are no shortcuts to wisdom. There also is no magic formula to retain knowledge and pass it on to future generations. El Salvador is beginning to understand now that its soil and food are contaminated with chemicals.

But within the uncertain food production dynamics in the Central American country, there are other mechanisms at play that are harmonious with the land and its crops. This is occurring after the recovery of the ancestral knowledge, the respect of the ecosystem cycles and the willingness of men and women who seek food security through agro-ecology.

“We have applied the ancestral processes gradually. Our ancestors did not practice monoculture, that’s why we seek to plant yucca, corn, zucchini, and loroco. The people have even stopped planting flowers in their plots. That’s why our soils before were rich and that’s why we want to recover all of that tradition that also included the planting of herbs such as blackberries,” explains Juan Pablo Pérez, from the Farmer to Farmer Program, to Latinamerica Press. The Farmer to Farmer Program was developed by farmers and is based on the barter of the goods grown by its members.
This initiative dates back to 1984 and has precursor organizations in Mexico and Nicaragua. In El Salvador the effort has fluctuated over time from 1994 to 2000, when it began to have a constant and solid dynamic.

Pérez is a farmer from the central department of Cuscatlán. He farms basic grains, vegetables and fruits. He works with organic fertilizer to protect the crops and uses aromatic plants to repel predators and prevent the growth of fungi. His method is successful at warding off whiteflies in crops such as chili pepper, tomato, spinach, red bean and creole corn.

“What we do is prepare strong substances that smell badly to scare off infestations or insects. One of the [substances] is made of chili pepper, garlic and onion. Or we make a soap with olive seeds. That product is placed in a gallon of water and [is used to] fumigate the leaves of the plants,” says Pérez.

“For us, all insects must be in an agro-ecological plot: larvae, worms, ants. There must be a balance for a good harvest,” he adds.

Replacing agrochemicals

Pérez has strong links to the nongovernmental organization Salvadorian Ecological Unit (UNES), which searches for new alternatives to combat the damage that agrochemicals and climate change cause.

“Agro-ecological practices follow a completely different procedure than traditional [practices] of food production which have been implemented since the worldwide ‘Green Revolution’. This has to do with organic products that become sustainable [for the land, the farmers, the nation] because they do not need agrochemicals nor the use of hybrid or improved seeds,” explains Mercy Palacios, from the UNES’s Public Policy Impact on Food Sovereignty area.

Palacios told Latinamerica Press that in San Julián, a municipality located in the western department of Sonsonate, the community leaders are the ones who have retaken these ancestral concepts to gradually replace agrochemicals.

The effort of the Farmer to Farmer Program and the UNES now has a vital component on their side: the Legislative Assembly banned on Sept. 5 the import, export, distribution and commercialization of 53 agrochemicals. The action of the legislative body created a domino effect, starting with businessmen, the farmers and up to the government, for the latter has two years to search for substitutes for these now banned agents.

The banning of these chemicals is rooted in the death of 60 people, all of whom died from renal failure between Jan. and Sept. 2013 in San Luis Talpa, department of La Paz, at the center-south of the country. The people of the area blamed the contamination on the use of agrochemicals.

“For us, all insects must be in an agro-ecological plot: larvae, worms, ants. There must be a balance for a good harvest.”

— Juan Pablo Pérez

“Agro-ecological practices follow a completely different procedure than traditional [practices] of food production which have been implemented since the worldwide ‘Green Revolution’. This has to do with organic products that become sustainable”.

— Mercy Palacios
“One of the obstacles that we must overcome is that without pesticides is not possible cultivate and this [belief] is due to the news from the media and deceptive propaganda. This limits the recognition of ancestral techniques and knowledge,” emphasizes Palacios.

But the UNES also recognizes that the farmers are the ones who voluntarily and blindly seek agrochemicals and overuse them. “There has been an alignment from the farmer’s side towards olden practices but on the other hand, the soil is highly contaminated,” says Palacios.

To make the land fertile again, adds Palacios, people must “think agro-ecologically” and “start by de-contaminating the soil by using native seeds” because “these [seeds] can be produced year after year in the same community” without having to resort to an agrochemical.

**Women as protagonists**

If the issue is about legacy, the principal role of women in ancestral agriculture survives until today. Sonia Brito, from “Mujeres Producieniendo la Tierra” or “Women Working the Land” Farming Association, is an example. Not only is she an important member of the organization, but she also works the land.

“I cultivate in a small plot that I have with my husband and family and we make fences with vetiver grass. With my family we are totally organized to maintain and conserve our plot,” describes Brito to Latinamerica Press.

She grows radishes, tomatoes, and bell pepper. She has also started growing coffee in her plot of land in the Talcomuna canton, located within the Buena Vista township of the Izalco municipality, in Sonsonate, a place with strong indigenous roots. She will see the fruits of her efforts in three years.

The work does not end there; she also shares her knowledge. Along with the association she is the mentor of 12 groups of women in the departments of Sonsonate and Santa Ana. The agro-ecology she learned focuses on many areas: organization, formation, provision, advocacy and community health. Though it takes time, there are fruits to her labor.

“The land is very contaminated and we will not be able to combat this from one day to the next. We have carried out practices that have ended up being very slow, but we have had changes, many changes. There is something that should not be allowed and that is logging [because trees] help us in this very rainy area of the country. It seems simple but it is a form of defense against climate change,” says Brito from her experience.

Brito is happy because the Legislative Assembly passed the ban on pesticides, though she recognizes that “we use agrochemicals, but to stop using them is also our great challenge. We already reached a 35 percent reduction. We struggle on this topic.”

For Palacios, the State must establish “a legal framework to create food sovereignty in the country. It must launch a native seeds program that excludes chemical fertilizers and adds at the appropriate time technical aid for farmers. And the most important thing: it must begin to rescue the knowledge of our ancestors.”

—Sonia Brito
Women commit to agro-ecology

Joined in the National Coordinated Widows of Guatemala (CONAVIGUA), the indigenous women who lost their husbands and family members during the 36 years of internal armed conflict that devastated Guatemala between 1960 and 1996 decided a few years ago to devote themselves to the protection of land and growing organic products.

Indigenous women widowed because of armed conflict opt for organic crops.

“The plants, herbs and other crops such as corn and beans are important in the lives of women,” said María Isabel Soc, member of CONAVIGUA and of the Women’s Commission of the international organization La Vía Campesina. “We are corn and we cannot eat another type of food that is not ours.”

“Many years ago began the process of training and educating women from different regions of the country so that they can put in practice their knowledge within their relationship with Mother Earth, the importance of food sovereignty, taking advantage of the resources they have in their communities and having access to a healthy nutrition,” she added.

In the Alta Verapaz region, in the north of the country, the women of various rural communities have decided to grow their crops using only organic fertilizer and homemade insecticide.

“Today they grow a variety of vegetables and medicinal plans,” said Marieta Tista de León, member of one of the communities of Alta Verapaz. “Women have improved the economies of their families and now they don’t depend on a place to purchase their food but they are the ones who provide healthy and nutrient-rich food to nearby families.”

Lucía Quilá, leader of CONAVIGUA, said that farming allows women to feed their families and have a surplus to satisfy other needs. Many of them began with small plots and now they provide food to their communities.

However, they find it hard accessing the market to sell their products and they have to compete with transgenic products that have invaded their communities.

CONAVIGUA turned 25 on Sept. 12. Indigenous organizations such as the Maya Waqib’Kej National Coordination and Convergence highlighted “the daily struggle of CONAVIGUA in strengthening leadership and transforming the lives of Maya women in Guatemala.”

Among the CONAVIGUA projects that have empowered indigenous women are literacy programs, mental and physical health programs, but especially those projects that “help the family economy, seeking food sovereignty, making use of the natural resource conservation living in harmony with Mother Nature”, saluted Waqib’Kej.
Food sovereignty at risk

More than 40 percent of food consumed is imported.

Food sovereignty is at risk in Mexico due to the increasing dependence on food imports. For the United Nations Food and Agriculture Organization (FAO), this situation is worrisome because of the volatility of international food prices.

“An international context of volatile and high prices makes Mexico vulnerable especially because these are basic food products,” affirmed in May the FAO representative to Mexico, Nuria Urquía Fernández, in statements quoted by the press.

Urquía added that, according to forecasts from the U.S. State Department, imports of corn, the base product of the Mexican diet, will increase by 50 percent until it reaches 17 million tons. In 2012 corn imports were 10.8 million tons, constituting 30 percent of internal consumption.

Likewise, the FAO is concerned about farmers. About 70 percent of farmers have lower incomes than needed to subsist, 20 percent have great potential for growth but do not have the necessary aid, and 9 percent are the ones feeding the nation. Close to 40 percent of the farming production is provided by communities dedicated to family agriculture, many of whom apply agro-ecological practices to their corn and other crops.

Meanwhile, the environmental organization Greenpeace warned in July of the risk to food sovereignty in Mexico because of the market entry of transgenic corn.

“The enormous diversity of the original grains could be lost and 80 percent of small producers in the country would be at risk, including 2 million farmers who produce for self-consumption only,” said Aleida Lara, coordinator of the Greenpeace Mexico Sustainable Agriculture Campaign, to the press. “What is serious is that, in the case that transgenic seeds are found in crops for self-consumption or [the crops] of small producers, they would have to pay royalties to the large transnationals, as is already happening in the United States.”

Mexico is one of the eight worldwide “centers of origin” of corn, and it has 59 breeds and 200 adapted varieties of this grain. In 2009 the government reformed the legislation on biosecurity, lifting a decade-long moratorium on transgenic corn. Until Oct. 2012, 177 permits for experimental and pilot farming of transgenic corn were granted. These are the first stages of massively developing commercial agriculture.

According to Lara, this year the US companies Monsanto, DuPont Pioneer and Dow Agrosciences presented formal requests to the government to commercially grow transgenic seeds in the states of Chihuahua, Coahuila, Durango, Tamaulipas, and Sinaloa. The latter is considered the bread-basked of Mexico.

Although the Department of Agriculture, Livestock, Rural Development, Fishing and Food (SAGARPA), ensured it had not authorized the cultivation of transgenic corn in the country, SAGARPA Secretary Enrique Martínez y Martínez, specified that “[we] must act according to scientific opinion.”

“We need greater production and seeds that are more resistant to pests, drought, ice [seasons], but at the same time we have the obligation to conserve the status of genetic wealth of native crops and we are doing that, but up to date no authorization from SAGARPA has been given, and we will do it in accordance with total scientific opinion,” said Martínez y Martínez.

In regards to the Secretary of SAGARPA comments, Lara specified that “transgenic crops can contaminate native grains not only when they are mixed but also through indirect ways such as the presence of insects or the wind. [The mixing of transgenic and native crops] would create serious risk for the crops and human health.” This type of transgenic production, she adds, “requires enormous amounts of herbicides, putting human health and entire fields in immediate danger.”
Three decades developing agroecology

The Campesino to Campesino program encourages an appreciation of local knowledge to reestablish food sovereignty

In an area carved into small farms known as minifundios, where each lot measures 0.35 to 1.4 Ha (1.8 to 3.7 acres), participants in the project called Farmer to Farmer (Campesino a Campesino) are spearheading agroecology efforts in Nicaragua. Crop diversification is one method for which small-scale farmers are using their skills and creativity to “take advantage of the soil,” said Leonel Calero, an 18-year veteran of agroecology practices and program promoter in El Mojón, about 37 kilometers (22 miles) from Managua, in the municipality of Catarina, Masaya.

They are employing new techniques rather than burning the land, and use crop residue and weeds to their advantage, Calero explained. “It’s a matter of conscience, to understand the earth needs care, that it can die but it can also live if we treat it well,” he said. “Everything is in nature as long as we use those resources from our farm and from our communities.”

Since the mid-1980s, the promotion of soil management practices and the incorporation of other farming techniques have taken place in Nicaragua, pushed by the National Union of Farmers and Ranchers (UNAG). Founded in 1981, with more than 60,000 individual producers now of which 20,000 work with their families using agro-ecological practices, the organization is becoming Nicaragua’s agroecology keystone.

“After the Farmer to Farmer Program [PCAP] started in 1986, it has developed a..."
methodology of learning by doing, placing great value on the knowledge of the campesino family, including women and young people,” explained PCAC expert Eugenio Pavón. “The program is focused on a variety of agro-ecological topics, food safety, organic fertilizer, and maximization of local resources, the farm, like using the plants, native seeds, and training space for promoters. There are 1,200 promoters at the national level, 38 percent of which are women. The virtue of this program is the campesino family is the main protagonist in this methodology, while we technicians are only facilitators,” Pavón told Latinamerica Press.

“‘The Farmer to Farmer Program started in 1986, it has developed a methodology of learning by doing, placing great value on the knowledge of the campesino family, including women and young people.’”

—Eugenio Pavón

“‘The program has done a great job of giving us knowledge, of teaching us to fish and not just giving us fish. They have taught us how to have diversified farms through exchanging information and training. Knowledge is important for the producer and allows one to become independent, to not just ask for a handout. Without knowledge you cannot do anything. This large crop I have, it didn’t come from my pocket, I didn’t go to a nursery to buy it, I only made use of the knowledge I acquired to reproduce plants,” Calero said. “If today I calculate the cost per plant, that would be an expensive investment, then the knowledge is crucial for helping people emerge from poverty.’”

Difficulties in meeting technical standards
PCAC promoters considered a success the 2011 approval of the Agro-ecological or Organic Production Development Law. It will enter into force with the Nicaraguan Mandatory Technical Standard (NTON), which creates a blueprint for tools that develop agro-ecological production, allowing the characterization of the production units, such as the development of management plans to guide the transformation of production processes in terms of compliance with the NTON.

Nevertheless, there isn’t consensus on the application of NTON, said Jorge Vásquez, an expert with the PCAC, because “producers are questioning the dissemination of technical standards, especially as pertains to incentives, because that has to do with the assistance, which remains unclear,” he told Latinamerica Press.

The Food Sovereignty and Security Strategy within the government’s National Human Development Plan, has the goal to “reduce food and nutrition insecurity in the rural population, rooted in small- and medium-scale food producers.”

Another factor aiding the agro-ecological movement is the Food Sovereignty and Security Strategy within the government’s National Human Development Plan, with the goal to “reduce food and nutrition insecurity in the rural population, rooted in small- and medium-scale food producers.”

The government’s document on Sectorial Policies for Food Security states that “food security and sovereignty reflects to the state of availability and stability in the food supply for everyone, everyday, in a timely manner to ensure nutritional wellbeing and enable [people] to make good biological use of food to achieve development without affecting the ecosystem.”
The Nicaraguan Agro-ecological Movement, comprising organizations that defend ecological practices in production systems, is establishing strategies for campaigns to counter unrestrained propaganda promoting the use of agrochemicals. Instead, it is encouraging agro-biodiversity, which has to do with the conservation of genetic resources related to agriculture, native seed conservation and crop diversification.

**Rescuing native seeds**

An unavoidable issue for the agro-ecological production sector is the use of native seeds, which in Nicaragua’s case reaches 70 percent to 75 percent in the case of basic grains crops—ensuring food sovereignty and security.

“We aren’t promoting salvaging native seeds out of a sense of folklore, but rather as a strategy for food safety and security because sovereignty has to do with exercising power, with making decisions; as long as people don’t have the power to decide about their genetic resources, we believe that there isn’t sovereignty.”

—Jorge Vásquez

production system is not recognized and has an important role in food security; even if it has low yields, it guarantees people’s food. The performance is a criterion that has to do not only with seed, but with soil nutrition,” he said.

The current ruling party, the Sandinista National Liberation Front, is promoting the widespread use of native seeds use through state programs. But in the opinion of some producer-leaders, this task should remain in the hands of trade unions as with previous governments, specifically the Pound for Pound program promoted by the administration of former President Enrique Bolaños (2001-2006). It was supported by the UNAG, which administered the program.

The Pound for Pound program, run by the Ministry of Agriculture and Forestry (MAGFOR), gave improved seeds to UNAG, which would then distribute them to farming families to improve the yield of basic grain crops (corn, sorghum, and beans) to guarantee food security. At present, UNAG works with government agencies like INTA and MAGFOR, but the actual distributors of the seeds and providers of technical assistance to producers is the government, not the trade unions.

Unresolved issues in the agro-ecological sector are the threats of transgenic crops pushed by multinational companies, the impact of the agricultural frontier on forest clearing, the excessive use of firewood and the resulting stress on flora, fauna and water—especially in the drier parts of the country in the northern municipalities of Estelí, Nueva Segovia and Madriz, and on the Pacific coast in León and Chinandega, among others.
Support of small-scale farming is lagging behind

Latinamerica Press

**Government promotes agricultural export industry in the detriment of food production for local use.**

According to estimates, approximately 80 percent of the food that is consumed by the Dominican population is produced in the country, to which an important part is provided by the small-scale farming. In spite of this the government is doing very little or nothing in order to invest in this sector.

“In the rural sector the percentage of poor people is the highest in the Dominican Republic,” affirmed Rosa Cañete, director of international humanitarian organization Oxfam-Dominican Republic. “Therefore investing in small-scale, family farming has strong effects regarding the reduction of poverty, as well as positive impact on environmental sustainability and on food security.”

According to the Budget Transparency Index for Small-scale, Family Farming (ITP-AFC), which was presented by Oxfam at the end of July, the Dominican Republic takes last place among the 10 studied Latin-American and Caribbean countries.

ITP-AFC is a global index concerning budget transparency which evaluates data, accountability, access to information and participation.

It is measured on a scale of 0 to 100, where 0 means that the conditions to deliver effective policies for small-scale, family farming do not exist, and 100 means that all the necessary conditions exist. The Dominican Republic scored 22 points.

“Those countries that stand out due to their low score in the Index, such as Bolivia, Nicaragua, and Dominican Republic, also face the pending challenge of greater investment in improved budget management and transparency in general.

However, the existence of good practices in general terms does not necessarily guarantee positive performance in terms of the needs of the AFC sector,” states Oxfam in the report “Blind Budgets”.

The producers dedicated to the small-scale, family farming require support concerning marketing, equal access to resources of production both by sea and land as well as access to agricultural techniques in agreement with environmental sustainability,” Cañete pointed out.

Eight of 10 units of agricultural production in Latin America and the Caribbean belong to the small-scale farming, a sector which faces difficulties accessing productive, technical and financial resources as well as being highly vulnerable to economic and environmental factors.

Although agriculture production contributes 6 percent to the GNP, only 0.5 percent of national budget are assigned to this area.

The Dominican president Danilo Medina assured that his priority lies with agro industry but in this priority rural domestic agriculture is not included. Early September, Medina stressed in front of representatives of the agro industry that “the effort which we are making in order to convert the agricultural sector into an exporting sector, is what we want to do, that [the sector] will be exporting, generating foreign currencies.”

“The small farming plays an important part regarding the protection of natural resources by developing sustainable agricultural practices as well as an agriculture which provides environmental services,” said Cañete. “In contrast to the big production of commercial plantation, the small farming has a higher capacity of adopting cultivation methods which contribute to conserve the soils and to reduce the pollution caused by agrochemicals.”

### LATIN AMERICA/THE CARIBBEAN Budget Transparency Index for Small-Scale, Family Farming (ITP-AFC)

<table>
<thead>
<tr>
<th>Country</th>
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<tr>
<td>Brazil</td>
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<td>Nicaragua</td>
<td>25</td>
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<td>Dominican Republic</td>
<td>22</td>
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</tbody>
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*Scale of 0 to 100, where 0 means that the conditions to deliver effective policies for small-scale, family farming do not exist, and 100 means that all the necessary conditions exist.*

**Source:** Oxfam
“Wake up before it is too late”
Latinamerica Press

UNCTAD highlights the importance of agroecology and ancestral farming practices to face climate change.

The United Nations Conference on Trade and Development (UNCTAD) called on rich and poor countries alike to change the paradigm of the agricultural development model that is based on monoculture and highly dependent on external inputs, and move toward sustainable and regenerative production systems that also considerably improve the productivity of small farmers.

“We need to see a move from a linear to a holistic approach in agricultural management, which recognizes that a farmer is not only a producer of agricultural goods, but also a manager of an agro-ecological system that provides quite a number of public goods and services (e.g. water, soil, landscape, energy, biodiversity, and recreation),” says the Trade and Environment 2013 Review, published on Sept. 18.

More than 50 experts participated in the elaboration of the report, entitled “Wake up before it is too late: Make agriculture truly sustainable now for food security in a changing climate,” including members of international organizations such as La Vía Campesina, Grain, and the ETC Group (Action Group on Erosion, Technology, and Concentration), who defend farmer agriculture, food sovereignty and agroecology.

“Over the past few years, we have seen a steady flow of high level reports from the UN system and development agencies arguing in favor of small farmers and agroecology,” say the three organizations in a joint statement. “International recognition that this is the way to solve the food and climate crisis is clearly building, but this has not been translated into real action on the ground where peasant farmers increasingly face marginalization and oppression.”

For Henk Hobbelink, founder of Grain, “the industrial food system is directly responsible for around half of all global greenhouse gas emissions, as we showed in our contribution to the UNCTAD report. We cannot solve the climate crisis without confronting the industrial food system and the corporations behind it. We should be turning to peasant based agroecology instead.”

Olivier de Schutter, United Nations Special Rapporteur on the right to food, agrees in pointing out that “by supporting the multiplication of large-scale monocultures, we risk further widening the gap between this model and small-scale, family farming, while promoting a pattern of industrial farming that is already responsible for one-third of man-made greenhouse-gas emissions. Similarly, schemes solely based on the use of pesticides and chemical fertilizers have also shown their ecological limits, and their ability to sustainably benefit the poorest farmers working on the most marginal land is questionable.”

“Under these circumstances,” maintains Schutter, “moving towards agroecological ways of production is needed if we want to feed the world, fight rural poverty and combat climate change at the same time.”

The UNCTAD document gives as example three investigations carried out in Latin America, Cuba, and Mexico assessing agricultural performance after extreme climatic events, revealing the close link between enhanced agro-biodiversity and resilience to extreme weather events.

A survey conducted in Central American hillsides after Hurricane Mitch (1998) showed that farmers engaged in diversification practices, such as cover crops, intercropping and agroforestry, suffered less damage than their neighbors who practiced conventional monoculture. The survey, spearheaded by Farmer to Farmer (Campesino a Campesino) movement in Guatemala, Honduras and Nicaragua, found that plots where farmers adopted sustainable farming practices has 20 to 40 per cent more topsoil, greater soil moisture and less erosion than their conventional neighbors. Similarly in Sonotosuco, Chiapas, coffee systems exhibiting high levels of vegetation complexity and plant diversity suffered less damage from Hurricane Stan (2005) than more simplified coffee systems. And in Cuba, 40 days after Hurricane Ike hit the country in 2008, researchers conducting a farm survey in the provinces of Holguín and Las Tunas found that diversified farms exhibited losses of 50 percent compared to 90 to 100 percent in neighboring monoculture farms.

Likewise, agroecologically managed farms showed a faster recovery of productivity. “All three studies emphasize the importance of enhancing plan diversity and complexity in farming systems to reduce vulnerability to extreme climatic events,” says the UNCTAD report. “Since many peasants commonly manage polycultures and/or agroforestry systems, their knowledge and practices could provide a key source of information on adaptive capacity centred on the selective, experimental and resilient capabilities of those farmers in dealing with climate change.”
In many Honduran communities, men and women awake at dawn to tend the land to feed their families. The hillsides and valleys at daybreak smell of freshly made coffee and damp earth, so much so it’s a part of the national identity. Nevertheless, the campesinos are one of the most vulnerable populations in a country where land scarcity is a daily battle.

Santa Bárbara, in the northwest, is one of Honduras’ most productive regions. At the same time, it is also one of the country’s poorest. The non-government organization Social Forum for External Debt and Development in Honduras (FOSDEH), estimates that by 2014, 80 percent of the population there will be living in poverty.

The Regional Association of Organized Communities (ARCO) attempts to counter the hunger affecting marginalized populations, especially among small-scale farmers. It was created to break the development paradigms touted to farmers in the region, where coffee has emerged as the only crop. The association works with families in four Santa Barbara municipalities: Arada, Atima, San Nicolás and Santa Bárbara; 27 villages and approximately 100 families are part of...
this project, which started in 2002 through the social ministry of St. Nicholas Catholic Church in Santa Barbara.

“Our goal is to promote socioeconomic development with economic solidarity, restoring our native seeds and training families to produce for their own consumption,” said Orlando Martínez, one of the leaders of ARCO.

The families produce coffee and vegetables, there is a farmer’s fair, and the use of native seeds is encouraged to avoid transgenics, Martínez told Latinamerica Press.

“Healthy foods

The encouragement of agroecology to establish food sovereignty goes against market forces and therefore is a challenge for those who dream of a food production system free from transgenics and rooted in indigenous culture.

In Honduras, there is the National Association for the Promotion of Agro-Ecology (ANAFAE), an umbrella group of 35 organizations around the country that promotes recuperating native seed usage and clean, healthy farming to work toward food justice and sovereignty, especially in communities and municipalities in the country’s poorest areas — which are paradoxically also the regions with the richest soil and natural resources.

The association has documented diverse experiences around the country, especially in the south, where drought is the leading enemy of small-scale farmers.

Engineer Jacqueline Chenier, expert and consultant on agroecological farming, told Latinamerica Press Honduran farmers have a sad history, from agrarian reform to the current economic crisis crippling the country.

“In the 1970s Honduras was called the breadbasket of the Americas. Now we see a form of excessive consumption with imports, we import most of the grains we eat: rice, beans and corn,” Chenier said. Recent reports from the Secretariat for Central American Economic Integration (SIECA) rank Honduras third among countries in the region that buy more food than it exports.

Central American countries in January achieved a 5.7 percent increase in exports across the board compared to the same period in 2012, according to SIECA, however they still bought more than they sold. In January, the trade deficit balance in Central America grew by 11 percent over a year earlier. The region imported in 2012 US$2.1 billion more than it exported.

“We would appreciate it if the FAO [Food and Agriculture Organization of the United Nations], along with government, wouldn’t counteract our work to salvage native seeds, because they are also carrying out campaigns supposedly to guarantee

““Our goal is to promote socioeconomic development with economic solidarity, restoring our native seeds and training families to produce for their own consumption.”

—Orlando Martínez

“In the 1970s Honduras was called the breadbasket of the Americas. Now we see a form of excessive consumption with imports, we import most of the grains we eat: rice, beans and corn.”

—Jacqueline Chenier
food sovereignty, but what they are doing is promoting transgenics and that’s what we want to eradicate,” Jerson Medina, a small-scale coffee producer from the Santa Barbara region, told Latinamerica Press.

Medina and other Honduran farmers are used to seeing the Department of Agriculture and Livestock (SAG) team with the FAO to form a destructive duo against those who want more sustainable and environmentally-friendly farming.

Many campesinos accept the technological bonus for improved seeds and fertilizers allotted per block (0.7 Ha or 1.74 acres) of basic grain crops, which SAG offers as its only aid to the agriculture sector and pays once a year, especially in May.

Chenier said although FAO runs the Special Programme for Food Security (PESA) — which promotes improvements to sustainable production systems for family farms to achieve food security — even if it has worked well in other countries, the lack of political will in Honduras among the government counterparts has turned PESA against the goal of food sovereignty.

“For us, whose traditional crop is corn, we have that wealth. However, it’s an uphill climb for those betting on agroecology because of all the actors behind this industry,” the expert said.

Land in few hands

Honduras has a long history of land ownership concentrated in the hands of few people, which has intensified with incentives for monocultures especially in the valleys, and is now reaching the hillsides like Santa Bárbara with coffee and also African oil palm production.

“We know who wins with this method, the landowners win — like Miguel Facussé, one of the country’s largest palm growers, who has exacerbated the agrarian crisis in the Bajo Aguán,” Chenier said, referring to the conflicts that have occurred since 2009 between landowners and campesino groups occupying estates cultivated with African oil palm.

Farmers claim they received the land in 1980 through agrarian reform. However, a 1992 law allowed the sale of plots in the form of cooperatives, which have been fraudulently acquired by landowners at very low prices.

Furthermore, the monoculture of sugarcane and palm has generated massive displacement of people from rural to urban areas, causing increased poverty.

ARCO is one of many initiatives seeking to eliminate systemic hunger and poverty in Honduras. They started small, working with farming families for the project. Now the scope is bigger, with field schools, rural credit unions, and community stores.

As an organization they have many ambitions, like a training center to operate a public school that will expand agroecology and salvage traditional knowledge that is being lost in younger generations. Another is to establish marketing for their products in line with fair trade principles.

They also dream of someday witnessing public policy that ensures the welfare and health of all Hondurans. ♣
First free zone with agroecological practices
Latinamerica Press

Project is expected to produce bananas and organic food for export within the fair trade approach.

The first Agricultural Free Zone dedicated to organic production in Haiti was established after the signing of an agreement between government and business representatives last September.

The free zone, called Nourribo, is located in Trou du Nord, in the northeastern part of the country, near the Haitian-Dominican border.

The agreement — signed by Wilson Laleau, acting Minister of Trade and Industry and President of the National Council of Free Zones, Rode Préval, Director General of the Directorate of Free Zones and Jovenel Moïse, CEO of Agitrans, a local company that will be in charge of the project — is expected to create nearly 3,000 direct jobs and 10,000 indirect jobs in the next five years.

Laleau underlined that the government of President Michel Martelly and Prime Minister Laurent Lamothe “is willing to mentor and encourage this kind of rapid investment in all sectors,” and has invited “other promoters to present structural projects in agriculture and in many others sectors.”

Haiti as one of the poorest nations in the world suffers from food insecurity due to soil erosion and soil infertility caused by bimodal rainfall pattern, low fertility soil types and its mountainous topography. Only 58 percent of Haiti’s over 10 million people have access to an adequate amount of food while 30 percent of harvests go to waste as mango exporter Jean-Maurice Buteau pointed out. “Poor handling and non-existent storage facilities and transport networks are the main reasons for this,” said Buteau to the press.

The importance of small farming
Agriculture has long been Haiti’s mainstay although nowadays it contributes just 25 percent of GDP. Critics claim that this is due to its underfunding. In 2009-2010 only 7 percent of Haiti’s budget was allocated to this sector.

Various civil society organizations such as Haiti Support Group, Hope for Haiti and Farm Haiti believe that small farming is the only way to ensure food security and food sovereignty.

The Nourribo project aims at producing approximately 20,000 tones of organically produced bananas and other vegetables. Due to its status as a Free Zone it has to export 70 percent of its production in order to benefit from tax concessions and customs reserved for Free Zones.

According to the fair trade approach of the project 20 percent of profits are supposed to be redistributed to small farmers who represent about 60 percent of Haiti’s population.

Laleau stressed that Nourribo is seeking to increase the incomes of small farmers in order to improve their purchasing power and quality of life.

Preparations for project Nourribo already began in 2002 after the government of former President Jean-Bertrand Aristide’s (1991, 1995-96 y 2001-2004) had negotiated a deal with Washington and Dominican politicians and businesspeople. Small farmers were offered money to leave the land they were working and a bulldozer came to demolish gardens without any prior warning. Back then Colette Lespinasse, a representative of the Refugees and Repatriated Support Group predicted that “the result will be an environmental and social catastrophe.”

Alberta, a peasant leader interviewed in 2002 by Latinamerica Press, said: “That land is the mother and father of my children, and now they want me to accept a little pile of money and walk away. That money won’t do anything for me, but we can always eat the rice we plant.”
President must ratify legislation prohibiting the use of fertilizers and pesticides.

On Sept. 5, the Legislative Assembly of El Salvador passed amendments concerning two laws regulating the use of pesticides and environmental safety. The amendments gradually ban the use of 53 highly toxic agrochemicals in the next two years and constitute safety standards concerning the use of pesticides and fertilizers.

The agrochemicals, which have already been prohibited in more developed countries, contain heavy metals and metalloids and are linked to a renal disease that has already taken 5,808 lives in El Salvador since 2002, according to the Public Health Ministry.

The Public Health Ministry confirmed that the agrochemicals might be one of the triggers of the disease but stressed that investigations have not yet been concluded. Mario Tenorio, a member of the party Grand Alliance for the National Unity, however said that according to the Ministry the majority of people suffering from the renal disease in the coastal region of the country were exposed to toxic factors while working in agriculture.

The Pan American Health Organization states that El Salvador has one of the highest figures of deaths caused by chronic kidney disease in the Americas. Other affected countries are Panama, Nicaragua and Guatemala while in Costa Rica and Honduras data is insufficient.

Ongoing debate

Approved by parliament with only a slim majority the amendments have caused a controversy in the country as opponents of the law changes such as the Agricultural and Agribusiness Chamber (CAMAGRO) stress the possibility that without the agrochemicals agriculture will be slowed down. General Director Luis Felipe Trigueros said to the press: “We think that this (prohibiting the agrochemicals) is not convenient and establishes a bad precedent for agriculture.”

The National Council of Rural Workers and Via Campesina El Salvador, both in favor of the changes, published a petition on Sept. 12 requesting president Mauricio Funes to ratify the reforms. The two organizations argue that these agrochemicals put the state to expense due to the treatment of ill farmers while only big agricultural enterprises benefit from the advantages of using agrochemicals. They stressed that the prohibition will not cause a drop in productivity as the agrochemicals can be substituted by non-toxic pesticides and fertilizers.

In response to parliamentary debate President Mauricio Funes proposed to prolong the timeframe in which the agrochemicals would be substituted arguing that food security must be ensured first. He suggested setting up a technical commission which would be in charge of further discussions while failing to appoint a date for ultimately banning the toxic substances.