



editorial : agroecology and climate



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one does not sell
the earth upon which
the people walk

Tashunka Witko, 1840 –1877

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Peasant Agroecology, the key for humankind and the planet

Agroecology has existed for many years, and much has been written about it already. *It is a multidimensional approach, founded on knowledge, know-how and peasants' ways of life, grounded in their respective natural, social and cultural environment.* For many years it was considered as archaic and not really adapted to "modern progress". Agroecology was banished, but is now making a big comeback. But who will reap the benefits?

Agroecological farming ensures soil, peasant seeds and farmers' knowledge is valued and sustained. It is the symbol of the diversity of production and practice that exists, of the diversity of food and its cultural identities adapted

to their social and natural environment. **Yet today it is being taken over by industrial agriculture.** Industrial agriculture is the opposite of agroecology, as it is based on profit, uniformity, specialisation, and concentration, with all the deadly consequences that this implies.

Industrial agriculture needs to clean up its image, so will yet again try to pull the wool over people's eyes, talking about sustainable "green agriculture that respects nature and people", but using the name of agro-ecology. It sounds good; but it is just another way of capturing knowledge and patenting living organisms. This is the way governments and companies around the world are talking. *Everyone wants to get in onto the bandwagon.* Monsanto, together with Arvalis has trained their advisors in agro-ecology. For them, agro-ecology means boasting about cutting back on chemical inputs in terms of volume but not concentration, continuing to promote hybrid seeds, GMOs and other transgenic plants and animals; monoculture, battery breeding and soil-less gardening, land- water- and natural resource-grabbing etc.

Apart from these practices that are the opposite of what agroecology is about, all this is based on technical dimensions, setting aside the **essential social, societal, environmental and spiritual aspects.**

This is why it is so urgent for peasant communities and peasant organisations to organise and promote **peasant agroecology**, linked to the Earth, and implement multiple, diverse forms of family agriculture that are adapted to their environment, their means, biodiversity and knowledge, to ensure healthy, nutritious food and the respect of agri-systems and biodiversity as well as the socio-economic development or territories, including harmonious social cohesion, the respect for community identity, supporting the autonomy of peasants as the corollary of increased income and well-being.

In the framework of Food Sovereignty, peasant agroecology as practised by millions of people and communities is the main key for the preservation of our planet, both today and tomorrow.

IPC working group on Agroecology

Agroecology : peasant agroecology.

Agro-ecology: agroecology taken over and promoted by industrial agriculture.

Reproducing and exchanging seeds

The historical practices of reproducing and exchanging seeds with neighbours and between farms constitute a key strategy for good sovereignty and agroecology, which makes possible the construction, development and maintenance of diverse, complex, autonomous and resilient food systems.

The reproduction of seeds permits each family or farm to have the quantity of seeds at their disposal that they need – in order to plant or sow at the moment they consider most appropriate – which allows the productive system to be integrated into the family's dynamic as well as the weather conditions. In addition, as Blanca from the Uruguayan Native and Indigenous Seed Networks says; "When you produce your own seed, the seed is automatically «guaranteed», because you know what you are planting and what its behaviour will be." As farm-saved seeds have developed a constant dialogue between farmers and their environment, **their management is simpler and better adapted to local conditions** – rendering it more resistant and less dependent on inputs. Seeds produced in this way can be planted with diverse ends: they can be used to produce food for the family and community, for animals and as a green manure.

As Pablo, also a member of the Network in the department of Tacuarembó in Uruguay says: "The exchange is so important because if one year you lose a variety you know that your neighbour will have it. In this way the community will never lose everything. For this reason working in groups and in networks is fundamental." In the case of the Native and Indigenous Seed Network, the existence of 24 local groups has made it possible to recuperate, reproduce and exchange seeds in diverse conditions, enriching these productive agroecological systems.

Autonomy is not constructed from the level of the individual, but from a group-community level and through the process of exchange with other groups and communities. The practice of exchange feeds relationships between neighbours and builds the social fabric at a local, regional and national level. For this reason the organisation of different types of meetings throughout the year by the network is so important: Meetings of local groups, groups representatives at national level, regional meetings, and every two years a national level meeting of all members. These meetings are always accompanied by a party and celebration where seeds and knowledge are exchanged.

The most important issue – which gives continuity to this process of co-evolution of seeds and knowledge, is the **permanence of people in the fields**. For this it is vital to **continue the struggle to ensure that people can live and produce from the land, in their territories**.

Agroecology – from historical identity to illegal appropriation

In a world which aims to privatise and patent everything, *agroecology* has been placed on the agenda of international agriculture and food governance where science, multilateral agencies and even the private sector compete for space on the playing field to have their role in the design of sustainable agricultural systems recognised. In a world which assumes to recognise the importance of small-scale food producers, **agroecology seems to be becoming appropriated by others and alienated from its historical protagonists**.

Eduardo Sevilla Guzman¹ says "One of the characteristics of industrialised capitalist societies is constituted by the role played by science, the institutions through which social control of change is exerted, anticipating the future with the aim of planning it. Processes of privatization, commoditisation and "scientification" of communal ecological goods (air, land, water and biodiversity) developed through the dynamic of modernization have assumed an intensification through the application of artificial physical, chemical and biological processes to cycles of nature in order to obtain foodstuffs".

For this, it is more urgent than ever to know how agroecology was born in order to conceive public policies through the right lens. Since the origins of humanity, knowledge has been essential to life, and for this **agroecology has been developed from traditional knowledge accumulated historically by peasant farmers, to which has been added the scientific knowledge of the last few centuries**.

It has been peasant farmers and indigenous peoples who have identified, adapted and incorporated new elements to improve production of food, maintaining their cultural identities without damaging nature. This is the only form we should use when developing creative designs for the production and circulation of foodstuffs.

Peasant knowledge and experience, surrounded by capitalism in its distinct forms, becomes reborn from its origins and is refreshed, demonstrating real results with creativity and legitimacy and showing definitively that it is possible to have a dignified life in the countryside, maintaining a peasant and indigenous identity.

Agroecology is the social, economic, organisational, productive and political model for living in the countryside of small-scale food producers which returns the social role of food – in contrast to the capitalist system which reduces food to a commodity. It has the unique particularity of not being a homogenous model, but one which accommodates all the local agri and hydro-cultures represented by men and women farmers and peasants, pastoralists, indigenous peoples, small-scale fisheries and woodland and forest dwellers who defend their territories and the land, seeds and all natural resources, food sovereignty and buen vivir.

However, *agroecology also implies a change in the paradigm of social, political and economic relations, as well as the relations between nature and society – transforming the patterns of production and consumption to build food sovereignty from the peoples of the country and the city. We know that agroecology is the only model capable of feeding the peoples of the world, but only through its protagonists – peasant farmers and indigenous peoples.*

Agroecology is on the agenda and is quickly becoming the key issue in many spaces which have forgotten the real protagonists of this agricultural revolution. For this reason, government recommendations should ensure it is small-scale food producers who implement political, economic and agri-food changes of and from their territories.

1 - Eduardo Sevilla Guzmán, *Agroecología y agricultura ecológica: hacia una "re" construcción de la soberanía alimentaria*, Revista Agroecológica, University of Murcia, Volume 1, 2006.

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Agroecology as a solution to Climate Change

The climate change issue has been in our minds for a long time now. Research studies, conferences and debates galore, the environment sector comes alive altogether at a different level when it is time for a convention or protocols to take place. Before and after the events- reports are tabled, resistances and disagreements are recorded and reports of emission reduction targets start pouring in. It is very critical to have countries join international treaties to come together and cooperatively consider what one can do to limit the emissions to manage the global temperature and its effects on the planet that we inhabit. It is critical because by strengthening a global commitment, we need to reverse the inevitable effects of the changing climate. And it is not only feasible, it is also economically viable and profitable as well.

Climate change is a complex problem, which, although environmental in nature, touches and has consequences for all spheres of existence of our people. It impacts on and is impacted by global issues, including food, trade, poverty, economic development, population growth, sustainable development and resource management. Stabilizing the climate is a definitely a huge challenge that requires planning and steps in the right directions. However, the bigger questions lie in understanding not just the 'how much' but also the 'how to'- how to reduce these emissions, how to produce enough healthy food and how to have clean energy?

Solutions for mitigating climate change come from all arenas in the form of creating new technologies, renewable clean energies and even changing management practices. *Agroecology* is one such practice that deals with the 'how to' of mitigation as well as adaptation to climate change. The uncertainty of raising temperatures, erratic rainfall patterns, droughts and the emergence of unfamiliar pests and diseases, **demand a form of agriculture that is resilient, and a system of food production that supports local knowledge transfer and on farm experimentation** through building adaptive capacity of farmers. Majority of climate change mitigation activities are foundations of organic practices. Organic production systems serve as the best widespread examples of low emissions agriculture. Organic systems are more resilient than industrial systems in terms of withstanding environmental shocks and stresses including droughts and flooding.

Conventional agriculture releases high carbon emissions due to the over use of fossil fuels and destroys biodiversity. *For agriculture, the idea is for a shift towards agroecological models of production that allow drastic reductions in the use of fossil fuels, present great mitigation potential through soil, wildlife and plant rejuvenation, and have the flexibility as well as diversity required to allow adaptation to changing conditions.* In practice, agriculture can contribute to cooling the planet in three ways: by reducing the use of fossil fuel (through reducing and/or completely removing chemical and synthetic fertilizers and pesticide production) and of fossil fuel powered transport and machinery; by positively effecting biodiversity and by slowing the release of biotic carbon.

Agroecology can significantly impact climate change positively as it builds:

Agro-ecosystem resilience that would look at consistency and sustainability of yield even and especially so, with the changing climate; **Livelihood resilience** that would help in achieving diversification of livelihood options through poultry, cattle, fish breeding etc...

This also helps in separating agricultural practice from instability and changes in other markets, while holding assets on the farm and also reduced or completely stops dependency on external inputs.

Smallholder agroecology is not only an effective solution to complex agricultural challenges, but also an affordable way to increase yields without external inputs outside the farm. Further, it offers low inputs, low emissions and local control over production decisions, offering Food Sovereignty alternative to the unsustainable agro-monocultures currently being pushed to address the food crisis. Several characteristics that are found in **local or indigenous breeds** will become increasingly important as climate change alters the environment and affects the produce. Local seeds and crops have a much better chance of survival in their local environment with the changing climate conditions. **Their protection, along with the local knowledge is critical to their management and breeding, is extremely crucial to feed us in the future.**

Box 1 **Climate-Smart Agriculture: a major driver of the Green Economy¹**

An original initiative of the FAO and supported by the World Bank, Climate-Smart Agriculture claims that "achieving food security and responding to the challenges of climate change are two goals that must be achieved together" and "that's why agriculture, fisheries and forestry in developing countries must undergo a significant transformation²."

At a superficial level C-S Agriculture seems like a positive initiative. But when we look at the details of what is included, **we realize it is essentially a project to rebrand industrial agriculture as climate smart.** C-S Agriculture deliberately tries to blur the boundaries between agroecological peasant controlled Food Sovereignty and corporate controlled agriculture. For example it doesn't recognize that it is the corporate food system that creates climate emissions or the urgent need to completely move away from this system towards peasant based agroecology to help solve the climate crisis.

Climate-Smart Agriculture puts the **agribusinesses in charge of agriculture and even rewards them.** Several major agribusinesses like Monsanto (GMOs) Yara (fertilizer) and Walmart (retail giant) are all backing Climate-Smart Agriculture. Monsanto is claiming that GM agriculture is climate smart because it helps no-till farming and drought tolerance. Yet as we know from decades of experience, GMOs increase the use of agrottoxics, promote corporate agriculture and, in addition, have not produced a single useful trait to adapt to climate change.

Moreover, Climate-Smart Agriculture promotes agriculture to **become a part of carbon offset schemes** that will create one more driver of land dispossession of small-scale food producers, particularly in the Global South, and unfairly place the burden of mitigation on those who are most vulnerable to, but have least contributed to, the climate crisis³ also expanding the carbon market and its use for financial speculation⁴.

Climate-Smart Agriculture "tries to cover-up and hide the need for genuine agriculture and land reform. It also hides, and lies about, the issue of scarcity of land and natural resources. **Land and natural resources are only scarce for peasant and small holding farmers because of grabs by corporations⁵.** Many Governments find Climate-Smart Agriculture attractive and are taking part in its initiatives.

Let's mobilize to stop them.

1 - See the Nyéléni Newsletter number 10, June 2012, on Green Economy. Available at: <http://www.nyeleni.org/ccount/click.php?id=22>

2 - <http://www.fao.org/climate-smart-agriculture/72610/en>

3 - Civil Society Organizations letter (September 2014) Corporate-Smart Greenwash: why we reject the Global Alliance on Climate-Smart Agriculture. Available at: <http://www.climatesmartagconcerns.info/rejection-letter.html>

4 & 5 - Via Campesina (September 2014) UN-masking Climate Smart Agriculture. Available at: <http://viacampesina.org/en/index.php/main-issues-mainmenu-27/sustainable-peasants-agriculture-mainmenu-42/1670-un-masking-climate-smart-agriculture>

Agroecology in

Agroecology as a model of production

action 2

Ramrati Devi is a small scale farmer from Gorakhpur in Uttar Pradesh. Her husband was a farmer but like many others in India, he abandoned it due to poor yield that led to losses with each harvest. That was when Ramrati decided to take the reins in her hands. She became a member of Laghu Seemant Krishak Morcha or Small and Marginal Farmers Front, Uttar Pradesh. There, she learnt about agroecological practices. With organic farming techniques she changed things around for her family today. Simple practices - such as multiple cropping on her one-acre farm- have produced high yields and a variety of food. She grows as many as thirty-two different varieties of crops that include wheat, mustard, sugarcane, garlic, coriander, spinach and potatoes for her family's daily consumption. Her family of twelve members depends on the farm's food. Ramrati is a role model and preacher of agroecological practices now.

Besides its emphasis on sustaining the environment and social inclusion through participatory frameworks, agroecological models have produced impressive economic results in terms of yields, productivity, nutrition and efficiency. It also contributes significantly towards food security and sovereignty. Agroecology models are redefining the relationship between farmers, agriculture and nature where instead of machines, farmers' families are toiling happily; instead of costly external inputs, only farm based inputs are the used in the form of biopesticides and biofertilizers; where monoculture is replaced by biodiversity; and where women farmers have an equal status with their men folks as seeding, weeding, thrashing, harvesting are their forte. Agroecology is fast becoming a dominant agricultural paradigm for small-scale resource poor farmers around the world. Farmers are adopting this farming technique not only for their sustenance but also to resist the corporate agricultural model pushed through green revolution and then, the gene revolution. In this age of ever increasing cost of production, indebtedness and large-scale suicides, farmers have to make their choice for changing their agricultural practices towards holistic and ecological model. The diversity of agroecological models being practiced in India offer them this option in the form of *Natural Farming, Zero Budget Natural Farming, Permaculture, Organic Farming, Rishi Kheti*. However Agroecology based organic farming is different from the neoliberal organic farming model being promoted by the same corporations who have thrived on green revolution technologies, making farmers dependent on non-sustainable and costly external inputs. Many more farmers like Ramrati Devi are required to spread the agroecological paradigm to defeat the capitalist and export oriented neoliberal agriculture who has threatened the survival of millions of small and marginal farmers in India and around the world.

in the spotlight 3

Transformation made possible: Agroecology, a popular, solidarity-based economic model

Is it possible to think about **another way of doing economics**, a way which goes beyond the hegemonic model of production-distribution-exchange-consumption of foodstuffs at a global level, characterized supply chains controlled by a few large transnational corporations which exclude other actors and retain the majority of the profits?

Can this model, this agro-mining-export model cohabit with an economy based on **principles of cooperation, reciprocity, autonomy, justice and solidarity** - an economy which progressively redistributes means of production which have been concentrated in the hands of a few: land, capital, technology and access to knowledge?

Can openings be made in this dominant economic model to build another economy based on **exchange and restitution** - in place of extraction - between society and nature, on collective responsibility and on forms of collective, community, mixed, public and other types of property different from private property, which remains the basic principle of the rights system in capitalist societies?

It is only possible to think of building "another economy" if we obtain **People's Food Sovereignty - and to achieve this there is no other route but Agroecology**. Family farmers, peasants and indigenous peoples have developed another way of thinking and living which make Agroecology possible - from the production to the system of values and social relations which exist behind the food we eat. We need agriculture and food policies which distribute equitably and build politically from the level of local markets - there is no Food Security for People unless there is Sovereignty and respect for their cultures.

The peasant farmers and practitioners of Agroecology of MAELA (Agroecological Movement of Latin America and the Caribbean) and its organisations have developed, in the last two decades, diverse forms of socio-economic and productive organisation based on the right to life which is permanently violated by the existing dominant economic system. This process has made us aware that the production, sales, distribution and access to foodstuffs are part of a political process of interactions, a cause for individual and collective rights which can bring dignity to life in the field as well as in the city.

From the local to the global and in that order of priority, actions are conceived and developed to open breaches in this commodifying system for food:

- *Creating local agroecological markets* with identities which build direct links between producers and consumers at the same time as *providing a space of political and social exchange* and information and which generate labels or alternative guarantee systems;
- *Fortifying traditional peasant markets* through the defence of their cultural identity and the restitution of the productive agroecological peasant identity;
- *Generating agreements with urban actors* for the development of healthy and equitable peasant agrifood systems;
- Creatively building methods of regional and international *exchange* with an agroecological identity, *through solidarity channels north-south, south-south, or peasant to peasant*;
- Implementing diverse strategies for avoiding the entry of peasants into *traditional value chains which are controlled by and at the service of national elites and transnational corporations*.

These systems and processes have allowed us to live an agroecological revolution, based on social, economic, cultural and organisational pillars to reach people's Food Sovereignty.

who we are : In the last years hundreds of organisations and movements have been engaged in struggles, activities, and various kinds of work to defend and promote the right of people to Food Sovereignty around the world. Many of these organisations were present in the *International Nyéléni Forum 2007* and fell part of a broader **Food Sovereignty Movement**, that considers the Nyéléni 2007 declaration as its political platform. **The Nyéléni Newsletter wants to be the voice of this international movement.** Organisations involved: Development Fund, ETC Group, FIAN, Focus on the Global South, Food First, Friends of the Earth International, GRAIN, Grassroots International, IPC for food sovereignty, La Via Campesina, Marcha Mundial de las Mujeres, Oxfam Solidarity, Real World Radio, Roppa, The World Forum Of Fish Harvesters & Fish Workers, VSF-Justicia Alimentaria Global.