



**SUPPORTING
THE AGROECOLOGICAL
TRANSITION**

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SUMMARY

AGROECOLOGY A KEY APPROACH TO CLIMATE CHANGE	3
Global food security threatened by climate change	4
The limits of current agricultural models – environment, climate and food insecurity	6
The agroecological approach to food security in a climate-constrained world	8
Creating a favorable policy environment for the agroecological transition	9
A POLITICAL AND ECONOMIC STRAITJACKET BLOCKING THE SPREAD OF AGROECOLOGY	10
Perception of agroecology as uncompetitive	11
When agriculture becomes a field for investment	13
Global trade encourages industrial agriculture	13
The globalisation of food systems works against smallholders	13
Policies that privatise and standardise nature	13
Climate policy – an opportunity that must not become a threat	14
Nationally Determined Contributions: the tools to implement the Paris Agreement should support the shift to agroecology	14
Climate Smart Agriculture: a vague concept	15
Mitigation measures and the land sector	15
Insecure land tenure	18
The agroecological transition: a lengthy process which requires secure land tenure	18
Land grabbing – a global threat	18
MEETING THE CLIMATE AND FOOD SECURITY CHALLENGES THROUGH AMBITIOUS AND COHERENT PUBLIC POLICIES	20
I. Meeting the climate challenge in the agricultural sector – an opportunity to initiate the agroecological transition	22
Implementing the Paris Agreement by developing agroecology	22
Koronivia Joint Work on Agriculture – providing guidelines to bring about the transition	22
Securing tenure – the cornerstone to combatting climate change	23
II. Linking food systems to territories	23
Supporting local economic development initiatives	23
Prioritising short circuits for the local development of agroecology	24
Protecting smallholder networks against competition from international trade	24
Bringing Multinationals into the Human Rights frameworks	25
Direct financing towards peasant agroecology	25
Adopting a territorial and holistic approach	25
III. Transforming governance	25
Promoting a rights-based approach	25
Empowering local communities for the management of the Commons	26
Recognising the knowledge of populations	27
IV. Remodelling indicators	28
Agroecology – a decidedly political transition	30



India, Balasore

PART 1

AGROECOLOGY A KEY APPROACH TO CLIMATE CHANGE

THE LINK BETWEEN POVERTY and food insecurity has long been a focus of the work of both Secours Catholique-Caritas France and the Caritas network. Myriad factors, ranging from the political to the socio-economic and environmental, need to be taken into account when addressing the causes of food insecurity. The current and future effects of climate change as well as environmental degradation caused by industrial agriculture give rise to new issues which force us to take a holistic view of food security. Today, food systems are unable to meet the challenges of our modern world. They are unable to provide sustainable and quality food for all, to eradicate poverty, to limit climate change via fair and equitable measures, notably for the countries with the lowest levels of greenhouse gas emissions (GHG), nor do they preserve natural resources. Achieving this difficult balance requires us to take a global approach where analysis of the causes informs the choice of solutions, solutions which need to be coherent for all sectors and scales, from the most local up to the global.

Agroecology is a practice, a movement and a science based on an optimal use of natural resources and of local knowledge to allow access with dignity to sustainably produced food. It provides both a response to the challenges of climate change and a solution to poverty reduction. As such, the promotion of agroecology necessitates an awareness of the role of public policy in our current food systems. There is an increasing range of policies to fight or mitigate the impacts of climate change and their implementation must also allow us to address the problems present in our food systems.

Furthermore, the adoption of the Paris Agreement in December 2015 set the target of limiting global warming to “well below 2 °C above pre-industrial levels” and if possible to “pursue efforts to limit the

temperature increase to 1.5 °C” (article 2)¹. States also called on the Intergovernmental Panel on Climate Change (IPCC) to prepare a report on the feasibility and possible scenarios of achieving the 1.5°C goal, to be published in October 2018. Meeting this aim in a fair and sustainable manner requires a true change to our systems, notably our food systems².

This report seeks to identify the nature of public policies that international institutions, states and territorial collectivities should implement in order to facilitate the agroecological transition. A series of discussions with Secours Catholique-Caritas France partners working on agroecology in many countries in the global South have enabled us to identify obstacles faced on the ground and practices which support the development of agroecology. These discussions have allowed us to draw up proposals for public policy to support the transition to agroecology. These proposals set out overarching principles, which then need to be tailored for local contexts and stakeholders, but which provide a basis to design the elements necessary for the development of agroecology.

GLOBAL FOOD SECURITY THREATENED BY CLIMATE CHANGE

Whilst we produce enough food to feed 12 billion people, 815 million people suffer from hunger around the world – the figure increases to 1.5 billion if it is measured using activity-specific daily caloric needs³. It is therefore evident that widespread global food insecurity is not the result of insufficient food production around the world, but insufficient access to food. This insufficient access may occur due to a lack of money to buy food, it may take the form of physical obstacles to access in situations of conflict or displaced populations, or other reasons. The leading cause of hunger in the world is in fact poverty.

Moreover, climate change is and will continue to increase poverty, resulting in an ever greater risk to food security. A World Bank report highlights the direct link between poverty and vulnerability, especially when combined with climate-change induced disasters. The report outlines how, on a global scale, the poorest 20% of people are twice

AGROECOLOGY IS A PRACTICE, A MOVEMENT AND A SCIENCE BASED ON AN OPTIMAL USE OF NATURAL RESOURCES AND OF LOCAL KNOWLEDGE TO ALLOW ACCESS WITH DIGNITY TO SUSTAINABLY PRODUCED FOOD.

1 https://unfccc.int/sites/default/files/english_paris_agreement.pdf

2 A food system comprises “the way in which individuals organise themselves, in space and time, in order to obtain and consume their food.” In <http://alimentation-sante.org/wp-content/uploads/2012/07/Dynamique-du-systeme-alimentaire.pdf>
See also Louis Malassis, *Nourrir les Hommes*, Dominos-Flammarion, 1994

3 The data for those affected by hunger across the globe is updated annually and calculated based on a daily caloric need assessed at 1800 kcal. This figure applies to sedentary individuals whilst the majority of individuals affected by hunger live in rural areas and have a more physical lifestyle requiring a higher calorie intake. For further information see CCFD-Terre Solidaire, *La Faim justifie les moyens. 10 ans après les émeutes de la faim*, October 2017, p.6



India, Balasore

as likely to live in fragile dwellings which would be completely destroyed if hit by a natural disaster⁴. The fight against poverty therefore goes hand in hand with climate risk-reduction; a study⁵ looking at 89 countries showed that if all of the natural disasters which struck in 2018 could have been avoided, 26 million fewer people would be living in extreme poverty⁶. In adopting the Sustainable Development Goals (SDGs) in 2015, UN member states set themselves the target of eliminating extreme poverty and hunger in the world by 2030. However, the figures for undernutrition, which had been dropping for ten years, increased in 2017 for the first time⁷. Why? Climate change and a growing number of conflicts, often linked to the increasing scarcity of natural resources. In this way, climate change is jeopardising the achievements of recent years in reducing inequalities and, if left unchecked, the 2030-2050 outlook is extremely worrying for the poorest populations. Factoring in the current and future effects of climate change, the FAO predicts that, compared to a scenario of "no climate change", there could be up to 165 million more people living in extreme poverty

by 2030. Put another way, it would mean over a billion people living in extreme poverty⁸. According to the IPCC, concerning poverty, "climate-change impacts are projected to slow down economic growth, make

“ THE LEADING CAUSE OF HUNGER IN THE WORLD IS IN FACT POVERTY. ”

poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger (medium confidence)⁹."

Ensuring food security for all therefore requires us to work to both reduce poverty and address climate change. The best policies to achieve these aims need to work in conjunction with each other, be ambitious and be adequately funded. Action is still possible but it is urgent to initiate a transition to responsible (low GHG emissions) and fair societies which allow everyone to exercise their fundamental rights, including their economic, social and cultural rights.

4 Stéphane Hallegatte, Adrien Vogt-Schilb, Mook Bangalore, Julie Rozenberg, *Unbreakable : Building the Resilience of the Poor in the Face of Natural Disasters*, World Bank, 2017

5 Ibid

6 Living on less than \$1.90 per day

7 FAO, *The State of Food and Agriculture*, 2017

8 FAO, *The State of Food and Agriculture: Climate change, Agriculture and Food Security*, 2016, p 33

9 IPCC Climate Change 2014 : *Impacts, Adaptation and Vulnerability: Summaries, FAQs and Graphics*. Contribution of WG2 to Fifth Assessment Report of the Intergovernmental Panel on Climate Change, World Meteorological Organization 2014

THE LIMITS OF CURRENT AGRICULTURAL MODELS – ENVIRONMENT, CLIMATE AND FOOD INSECURITY

Against this backdrop of climate change and increasing malnutrition, we need to question the agriculture and food systems currently in place and ask what needs to be done to be able to tackle the challenges we face. Industrial agriculture inherently has its limitations: greenhouse gases, soil degradation linked to the mass use of inputs, water pollution and serious ramifications for human health¹⁰. Agriculture accounts for a quarter of global emissions¹¹; if we add in all food systems then the figure rises to a third¹². What sets these sectors apart is that they primarily emit methane and nitrous oxide, gases which have a global warming potential respectively 25 and 298 times higher than carbon dioxide when compared over a 100 year time horizon¹³, and even higher in the short term¹⁴. Nevertheless, the impact of different agricultural models on climate change is not yet sufficiently factored into public policies regarding climate.

Furthermore, consideration of the climate consequences of global food systems cannot be separated from an examination of consumption and dietary habits. These crucial issues remain insufficiently addressed by international organisations, most notably by the United Nations Framework Convention on Climate Change (UNFCCC). To achieve change in our food systems, our dietary habits need to be analysed. This again requires ambitious public policy.

The meat and dairy industry in particular has an extremely heavy climate footprint. A study has shown that the 20 largest meat and dairy companies produce more GHGs than a country like Germany¹⁵. If the current levels of meat and dairy production are maintained, and if global emissions were reduced significantly enough to keep under the 1.5°C goal, then by the year 2050, meat and dairy production would account for 81% of all GHG emissions. The aims set out in the Paris Agreement therefore mean that we must seriously reflect on our current level of meat production and consumption¹⁶.

Finally, the issue of the international organisation of food chains, from the producer to the consumer, needs to be analysed. The FAO estimates that a third of all food around the world is wasted¹⁷. This production uses water and fertilisers, creates GHGs and packaging, and weighs heavily on environmental and economic imbalances. This vast waste also raises difficult ethical questions at a time when millions of people do not have enough food to eat.

In order not to jeopardise the achievements of States and the international community over recent years, and to make progress in the fight against food insecurity and to finally end hunger, we urgently need to transform our food systems. We need an agricultural system which can cope with climate shocks, so as to be able to build resilient systems which strengthen everyone's food security and which alleviate poverty. To begin with, a swift and drastic reduction in greenhouse gas emissions is required, led, for reasons of equity, by those historically most responsible for emissions.

THE CONCEPT OF FOOD SECURITY was defined during the World Food Summit in 1996¹: "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." Four pillars accompany the definition:

- Access (physical and economic)
- Availability
- Utilization (micronutrients, safety, social and cultural preferences)
- Stability of supply and access

1 World Food Summit, http://www.fao.org/wfs/index_en.htm

A profound change to our agricultural systems is called for; this change is called for, echoing the words of Pope Francis in *Laudato Si'*, by both the poorest, who still do not have enough to eat and who eat poor quality food (presence of pesticides, low levels of nutrients), as well as by the earth, suffering under the strain of industrial agriculture.

10 Cecilia Rocha, *Unravelling the Food-Health Nexus*, IPES-Food, 2017

11 Pete Smith, Patricia Bustamante et al., *Agriculture, Forestry and Other Land Use (AFOLU)*, in *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2014, USA

12 Emile Frison, *From Uniformity to Diversity*, IPES-Food, June 2016

13 Piers Forster, Venkatachalam Ramaswamy et al., *Changes in Atmospheric Constituents and in Radiative Forcing in Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2007

14 Piers Forster, Venkatachalam Ramaswamy et al., *Changes in Atmospheric Constituents and in Radiative Forcing in Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2007

15 Heinrich Böll Foundation, the Institute for Agriculture and Trade Policy Europe and GRAIN, *Big Meat and Dairy's Supersized Climate Footprint*, November 2017 <https://www.boell.de/sites/default/files/factsheet-big-meat-and-dairys-supersized-climate-footprint.pdf>

16 For further information on this subject see *Habiter autrement la Création*, published by Secours Catholique-Caritas France, CCFD-Terre Solidaire, Fédération Protestante de France, Conférence des Evêques de France, et al., July 2015

17 <http://www.fao.org/resources/infographics/infographics-details/en/c/317265/>

“A TRUE ECOLOGICAL APPROACH ALWAYS BECOMES A SOCIAL APPROACH; IT MUST INTEGRATE QUESTIONS OF JUSTICE IN DEBATES ON THE ENVIRONMENT, SO AS TO HEAR BOTH THE CRY OF THE EARTH AND THE CRY OF THE POOR.”

LAUDATO SI', 49, POPE FRANCIS.



Madagascar, Ankako community

THE AGROECOLOGICAL APPROACH TO FOOD SECURITY IN A CLIMATE-CONSTRAINED WORLD

In an earlier report¹⁸, Secours Catholique-Caritas France examined the contributions of the agroecological practices of our partners who work in the field.

AGROECOLOGICAL TECHNIQUES ALSO FAVOUR RESILIENCE AND ADAPTATION TO CLIMATE CHANGE.

The report highlighted the benefits of agroecology, notably the way in which these practices provide a response to food security and climate issues in our challenging present day context.

The primary function of agroecology is to ensure food security by relocalising production. In doing so, agroecological practices also help to tackle the major challenges we face today, be they economic, environmental, social or political.

In terms of mitigation, agroecology leads to very low levels of GHG emission given the absence, or

minimal use, of external inputs. Moreover, agroecology stimulates local food systems which use less transport.

Agroecological techniques also favour resilience and adaptation to climate change. They allow for crop adaptation as well as increased resilience, including economic resilience, of populations. The use of peasant seeds allows for the choice of those best suited to local climatic conditions. For instance, Caritas Bangladesh encourages smallholders based on river valley flood plains (the Padma valley, the distributary of the Ganges, the Meghna and the Jamuna) to use specific varieties of rice seed and other food staples which are both resistant to salinity and have a shorter crop cycle. Similarly, BSSS (Balasore Social Service Society)¹⁹ in Odisha, India works to spread the use of local rice varieties which are more resistant to drought and less affected by the impacts of climate change. As a result of not using pesticides, money is saved on inputs and a broader range of biodiversity is encouraged which, via crop diversification, helps to better tackle the issue of parasites. At the same time, diversification also provides a buttress against extreme climatic shocks and strengthens food security; if one particular crop suffers owing to a drought, farmers can guarantee

¹⁸ *Agroecology and Sustainable Development*, Secours Catholique – Caritas France, January 2017

¹⁹ The Balasore Social Service Society (BSSS) is an organisation set up in 1992 by the diocese of Balasore (Odisha) which focuses on development in the four north-eastern districts of the state

food production by relying on other, more resilient crops²⁰. By favouring organic material, agroecology is also beneficial for soil quality which helps to better resist the impacts of droughts and floods.

Finally, agroecology strengthens smallholders' autonomy by strengthening their capacity to lift themselves out of poverty. It promotes quality and diversified agricultural production, embedded in a territory, its natural resources, climate, ecosystem as well as the knowledge of local populations. As such, smallholders are not forced to depend on expensive external provisions, be it inputs, seeds or even contract farming²¹.

CREATING A FAVORABLE POLICY ENVIRONMENT FOR THE AGROECOLOGICAL TRANSITION

The benefits of agroecology are becoming more widely known and shared at all levels. Many stakeholders, at local, national and international level, be they civil society or smallholder organisations or institutional stakeholders, are calling for a transition to agroecology. Such a transition provides a credible response to the many current social and environmental challenges we face. Both States and UN bodies increasingly promote agroecology²². However, a glass ceiling hinders the spread of these practices which currently does not allow us to go beyond an approach focussed on individual or relatively isolated projects or initiatives. We therefore need to reflect on the policy environment needed for this transition and to tailor public policies to achieve a rapid deployment of this model on a truly global scale. Achieving this larger structural change requires opening a political and systemic window of opportunity²³ to smash the glass ceiling. This requires us to consider the specificities of individual territories seriously, but also to question our system of industrial agriculture and the dominant industrial stakeholders. In reality, agroecology is more than merely implementing environmentally sustainable agricultural practices at a local level. The original impetus behind agroecology was never solely economic. It is not just a response to market demand, but a practice which echoes the philosophy of *buen vivir* – living well. Without being overly simplistic, agroecological production needs to provide for and be integrated into local economies. However, it needs to be understood that agroecology offers a fairer, more local and more equitable social model.



E. PERRIOT / SCCF

Bolivia, Nazareth community

AGROECOLOGY AND FOOD SOVEREIGNTY

By diversifying production and thus reducing the need for imports, agroecology helps to achieve food sovereignty. The Via Campesina defines food sovereignty as “a process of building social movements” which “adapts to the people and places where it is put in practice¹.” In an ideal scenario, smallholders can feed themselves from their own production and earn an income from the sale of their surplus. In reality, the situation is often more complicated. Food sovereignty should be built primarily on the resources available in a given territory. Agroecology, focussed primarily on local development, places smallholders at the heart of the system with their role as food producers and territorial stakeholders. These components work together to strengthen the food sovereignty of populations².

- 1 European Coordination Via Campesina, *Food Sovereignty NOW!*, 2018
- 2 Miguel Altieri, Clara Nicholls, *Diffuser l'agroécologie pour la souveraineté et la résilience alimentaires*, in *Agroécologie. Enjeux et perspectives*, Alternatives Sud, vol.21, 2014, pp 35-64

The rest of this report sets out the structural implications of an agroecological transition of our food systems. We begin by examining the obstacles to the upscaling of agroecology across the continents, taking examples from research or on the ground experience. We then draw up a range of proposals for public policy which would allow for a transformation of food systems which goes beyond isolated examples and which would usher in social change. The recommendations are based on the work of Secours Catholique-Caritas France partners operating in Africa, Asia and Latin America.

20 M. Natarajan, R.W. Willey, *The effects of water stress on yields advantages of intercropping systems*, *Field Crop Res* 13, 1996, pp 117–131

21 Olivier de Schutter, *L'agroécologie : sécurité économique et autonomie pour les paysans*, RITIMO, 18 July 2016 <https://www.ritimo.org/26-Pour-combattre-le-changement-climatique-les-paysans-ont-besoin-de-ce-dont>

22 The FAO organised an International Symposium on Agroecology in April 2018 which brought together over 700 participants and 75 national delegations

23 Centre for Alternative Technology, *Zero Carbon Britain, Making it happen*, 2017, p 88

PART 2

**A POLITICAL AND ECONOMIC
STRAITJACKET BLOCKING
THE SPREAD OF AGROECOLOGY**

OVER RECENT YEARS, a number of international institutions along with certain States have increasingly underscored agroecology as the choice to be pursued. The former UN Special Rapporteur on the Right to Food, Olivier de Schutter, published a report in 2010 which highlighted the conceptual links between agroecology and the right to food²⁴. In the report, he promotes agroecology as a solution for the climate and ecological challenges we face as it allows for sustainable production and offers the opportunity of social development. Subsequently, this ecological conception of agriculture has been taken up by other bodies. The FAO has organised two symposiums on agroecology, in 2014 and 2018, and the Committee on World Food Security (CFS) has asked the High Level Panel of Experts to produce a report on "Agroecological approaches and other innovations for sustainable agriculture and food systems that enhance food security and nutrition" with a view to the negotiations at the CFS in 2019. Some states, including France, have also been promoting agroecology in international diplomatic circles, with the creation in 2015 of the group of Friends of Agroecology²⁵.

Agroecology's standing in international organisations is clearly growing, even if its importance in some circles, such as the United Nations Framework Convention on Climate Change (UNFCCC), remains limited. Despite that, when we look at the uptake of agroecology on the ground, progress remains too slow. There are neither global nor national figures which allow us to measure this progress. Feedback from people working out on the ground reiterates that despite the political narrative, despite certain specific approaches and despite the growing and recognised interest in it, a glass ceiling hinders the mass development of agroecology²⁶. We often see public policy²⁷ which deters the development of agroecology, standing the exact opposite.

We need to understand the different practical, cognitive, economic and political elements that slow or completely halt the development of agroecology.

“ONE OF THE OBSTACLES TO THE SPREAD OF AGROECOLOGY IS VERGING ON THE COGNITIVE AND STEMS FROM THE BELIEF THAT INDUSTRIALISED AND MECHANISED AGRICULTURE, AS PROMOTED UNDER THE GREEN REVOLUTION, IS MORE COMPETITIVE.”

These multiple barriers may be multifaceted and systemic and may differ in different settings. A tendency to focus on too schematic a view of the subject must be avoided. Nevertheless, it is possible to identify the main obstacles in general terms. Based on this analysis, it is then possible to draft a set of public policy proposals to overcome these obstacles.

PERCEPTION OF AGROECOLOGY AS UNCOMPETITIVE

One of the obstacles to the spread of agroecology is verging on the cognitive and stems from the belief that industrialised and mechanised agriculture, as promoted under the Green Revolution, is more competitive²⁸. In comparison, agroecology, based on smaller tracts of land with crop diversification and only organic fertiliser, seems to some "archaic" and less competitive. However, there is a growing number of studies which show the opposite; agroecology could feed the world if we reduced food waste and limited our consumption of meat and dairy²⁹. Family farming already produces 80% of global food³⁰; it is thus at the level of smallholdings that the potential to feed people exists, as well as the opportunity for a transition to agroecology.

Out on the ground, many people lack information on agroecological practices, notably on the economic viability of converting³¹. However, profits are seen to

24 Olivier de Schutter, *Agroecology and the right to food*, report submitted to the 16th session of the UN Human Rights Council, [A/HRC/16/49], 2011

25 Comprising 16 countries including France, Hungary, Italy, Italy, the Netherlands, Brazil, China, Japan and Senegal <https://oaa.deleg-france.org/Lancement-du-Groupe-des-amis-de-l-agro-ecologie>

26 Laura Silici, Calisto Bias et Eunice Cavane, *Sustainable agriculture for small-scale farmers in Mozambique. A scoping report*, IIED, March 2015; Matthieu Calame, *L'agroécologie envoie paître l'industrie*, *Revue Projet*, February 2013, n°332, pp. 50-57

27 Eric Sabourin et al., *Comparative regional analysis*, in *Public policies in favor of agroecology in Latin America and the Caribbean*, PP-AL network; FAO, 2017, p 387

28 According to the narrative which states that we need to produce more food to feed the world by intensifying and rationalising production, an argument often advanced by agroindustrial groups. See Emile Frison, *From Uniformity to Diversity*, IPES-Food, June 2016 : *Lock-In 6 : 'Feed the World' narratives*, pp 54-55

29 Adrian Müller, Christian Schader, Nadia El-Hage Scialabba, Judith Brüggemann, Anne Isensee, Karl-Heinz Erb, Pete Smith, Peter Klocke, Florian Leiber, Matthias Stolze & Urs Niggli, *Strategies for feeding the world more sustainably with organic agriculture*, Nature Communications, 2017

30 <http://www.fao.org/news/story/en/item/260535/icode/>

31 Miguel Altieri et al., *Nourishing the World Sustainably : Scaling Up Agroecology*, Ecumenical Advocacy Alliance, 2012



Madagascar, Antakavana community

S. ILLICIZIO / SCOF

increase after shifting to sustainable agriculture³². Caritas Kaolack (Senegal) notes that shifting to agroecology allows smallholders to reduce their costs whilst maintaining yields in the first year of the project; subsequent years can lead to increased yields.

“ THE VOLUMES REQUIRED BY GLOBALISATION, WHICH SMALLHOLDERS COULD NOT MEET, ENCOURAGED THE DEVELOPMENT OF INDUSTRIAL-SCALE HOLDINGS. ”

The economic benefits are therefore particularly noteworthy. Market garden produce can be kept for longer and sold later, at a higher price. Caritas Kaolack states that smallholders need to see the benefits to be convinced. They are then very quick to change their production model as the harmful effects of pesticides on their health are visible.

Moreover, in terms of utilisation of natural resources per unit of labour, agroecology is more economi-

cal than conventional agriculture³³ – a convincing argument in a world where natural resources are becoming increasingly scarce.

The fundamental question is which criteria are used to measure agricultural performance. In many respects, industrial agriculture has reached its environmental and health limits, whilst food insecurity persists in many regions of the world, and the number of people suffering from malnutrition or obesity is increasing³⁴. It is no longer possible, considering the current climate constraints we face, to focus solely on productivity at one specific moment in time without taking into account the sustainability of the farm, the capacity of future generations to feed themselves with the same resources and the social and health, including nutritional, impacts of an agricultural model. The criteria and indicators to be used require in-depth analysis. This analysis will help to drive mentalities forward and will illustrate the importance of an integrated and ecosystem-friendly agricultural system. We also need to examine the influence of those who benefit from the current model.

32 A study which looked at over 12 million agricultural holdings following guidelines for sustainable farming in 57 developing countries concluded that the average increase in yield was 79%, whilst all farmers also benefited from a significant ecosystem improvement. For the purposes of the study, "sustainable" agriculture encompasses 5 practices: integrated pest management, integrated nutrient management, conservation tillage, agroforestry and aquaculture. See: J. Pretty et al., *Resource conserving agriculture increases yields in developing countries*, *Environ. Sci. Technol.*, 40, 2006, pp. 1114–1119

33 Olivier De Schutter, Gaëtan Vanloqueren, *The New Green Revolution : How Twenty-First-Century Science Can Feed the World*, Solutions, 2011, p 5

34 Between 1975 and 2014, the number of obese adults as a percentage of the global population increased from 4% to 13% (WHO)

WHEN AGRICULTURE BECOMES A FIELD FOR INVESTMENT

GLOBAL TRADE ENCOURAGES INDUSTRIAL AGRICULTURE

Agroecology struggles to develop as current national and international public policy, especially trade and investment policy, favours large holdings which are most capable of operating in a global market. Equally, producers need to be able to find an outlet for their agroecological produce. In terms of market access, trade and access to resources, agroecology needs strong state support. However, the opposite has been seen with the deregulation of the agricultural commodities markets.

THE GLOBALISATION OF FOOD SYSTEMS WORKS AGAINST SMALLHOLDERS

"Small farmers are being kicked off global grocery supply chains, often leading to increased rural poverty"
Olivier de Schutter, former United Nations Special Rapporteur on the Right to Food³⁵

The 1995 World Trade Organization Agreement on Agriculture favoured the rapid liberalisation of agriculture based on monoculture and the globalisation of food chains³⁶. The volumes required by globalisation, which smallholders could not meet, encouraged the development of industrial-scale holdings. A culture of mass exports developed which lead to the concentration of production in the hands of a few agribusinesses. For example, 70% of agrochemical production are controlled by just three groups (Dow and DuPont, Bayer following the acquisition of the Monsanto group and ChemChina following the acquisition of Syngenta)³⁷. In addition, 70% of the world 1.5 billion farmers are smallholders. However, 90% of all produce are bought up by ten main traders. The ten largest processors also account for 90% of production before it is sent to retailers³⁸.

Furthermore, the globalisation of supply chains has created a high level of market dependency. For exporting countries, volatility in global markets leads to uncertainty and even losses if prices fall. For im-

porting countries, this dependency can impact the balance of payments when prices increase³⁹.

Local producers suffer unfair competition as markets are flooded with cheap imported produce⁴⁰. A State long term aim should be to create an environment to support the realisation of food security for the total populations with the aim of achieving food sovereignty.

POLICIES THAT PRIVATISE AND STANDARDISE NATURE

The privatisation of nature, for instance the patenting of seeds, affects a population's food sovereignty, particularly that of smallholders and indigenous peoples. In this way, intellectual property rights infringe the collective usage rights of seeds and no longer allow smallholders to plant seeds which are adapted to their territory⁴¹. Trade agreements have spread a form of standardised agriculture which uses the same agroindustrial seeds everywhere. In general terms, it is the large corporations which have the capacity to meet the standards necessary for trading on, notably, the European and US markets.

Moreover, the development of industrial seeds and GMOs⁴² has favoured greater use of agricultural inputs⁴³ which has not led to positive outcomes for smallholders⁴⁴. Standardised industrial seeds, inappropriate for local environmental and climatic conditions, require large amounts of chemical products which destroy the soil and biodiversity. Similarly, GMO crops also require the extensive use of phytosanitary products. For CENDI, our partner in Vietnam, GMOs are just the start of the problem of an increasing reliance on inputs.

These aspects show that taking food and agriculture to be a mere investment opportunity, rather than a sector providing food for humanity, leads to trends which are detrimental to family and subsistence farming⁴⁵. The question we need to ask is how do we change our vision of food from one of a commercial good to that of a Commons⁴⁶.

35 Olivier de Schutter, *Addressing Concentration in Food Supply Chains*, Briefing note 3, December 2010 https://www.ohchr.org/Documents/Issues/Food/BN3_SRRTF_Competition_FRENCH.pdf

36 Olivier De Schutter, Gaëtan Vanloqueren, *The New Green Revolution: How Twenty-First-Century Science Can Feed the World*, Solutions, 2011

37 For more information see: Pat Mooney et al., *Too Big to Feed: Exploring the impacts of mega-mergers, concentration, concentration of power in the agri-food sector*, IPES-Food, 2017

38 Ibid

39 Olivier de Schutter, *Food Commodities Speculation and Food Price Crises*, Briefing note 2, September 2010, p8

40 The Notes of SUD, *Common Agricultural Policy and Economic Partnership Agreements : are they coherent with the development of family and peasant farming in the South?*, 2017

41 Coordination SUD, *The right to seeds. A fundamental right for small farmers!*, 2017

42 Genetically modified organisms

43 <https://www.infogm.org/-OGM-Des-plantes-pesticides->

44 <http://www.amisdela terre.org/Le-Burkina-Faso-abandonne-le-coton.html>

45 Friends of the Earth International, *Trade and investment agreements block progress on agroecology and food sovereignty : 'getting into a bind' - how the trade and investment regime blocks the development of agroecology and the access to land*, October 2016, p8

46 José Luis Vivero Pol, *Food as a commons : Reframing the narrative of the food system*, Université Catholique de Louvain, 201. Available at SSRN: <https://ssrn.com/abstract=2255447> or <http://dx.doi.org/10.2139/ssrn.2255447>



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CLIMATE POLICY – AN OPPORTUNITY THAT MUST NOT BECOME A THREAT

The Paris Agreement sets out the way forward to meet the aims of climate change adaptation and greenhouse gas reduction. The text also creates friction between the necessary mitigation measures, which often concern the land sector, and the vital need to maintain food security. The Paris Agreement sets out guiding principles in its preamble, which

THE PARIS AGREEMENT SETS OUT GUIDING PRINCIPLES IN ITS PREAMBLE, WHICH INCLUDE HUMAN RIGHTS, THE RIGHTS OF INDIGENOUS PEOPLES AND FOOD SECURITY.

include Human Rights, the Rights of Indigenous Peoples and food security. It is paramount to ensure that these principles are integrated into all implementing instruments of the agreement, and more widely into all climate action, so they do not become a threat to food security and rights of populations.

Climate ambition and the scale of the task we face mean that we need changes in our trading system to ensure that it does not undermine environmental policy⁴⁷.

NATIONALLY DETERMINED CONTRIBUTIONS: THE TOOLS TO IMPLEMENT THE PARIS AGREEMENT SHOULD SUPPORT THE SHIFT TO AGROECOLOGY

Prior to adoption of the Paris Agreement, States were invited to publish their Nationally Determined Contributions (NDCs) setting out their commitments, broken down by sector, for climate change mitigation and adaptation. A study from the FAO shows that almost all developing countries have proposed adaptation actions in agriculture⁴⁸. Nevertheless, these initial contributions often do not specify what type of agricultural model will be prioritised. NDCs need to be revised between 2018 and 2020 so as to remain in line with the temperature goals in the agreement. This therefore offers an opportunity to bring forward the agroecological transition by adapting it to the different national contexts so as to address the issues of climate change adaptation and mitigation whilst also guaranteeing food security.

47 With the signature of the United Nations Framework Convention on Climate Change (UNFCCC) it was made clear that measures taken to support the climate and environment would not represent an obstacle to global trade: 'Article 3.5 of the UNFCCC and Article 2.3 of the Kyoto Protocol provide that measures taken to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade and should be implemented so as to minimize adverse effects, including on international trade, and social, environmental and economic impacts on other Parties.' See https://www.wto.org/french/tratop_f/envir_f/climate_challenge_f.htm.

48 FAO, *The Agricultural sectors in nationally determined contributions (NDC)*, 2016

CLIMATE SMART AGRICULTURE: A VAGUE CONCEPT

A structural change is needed to implement climate policy in the agricultural sector. The challenge, and the economic opportunity it represents, also gives rise to a number of other initiatives in parallel to the official UNFCCC negotiations. Some of these initiatives lack structure and safeguards. A prime example is Climate Smart Agriculture (CSA), which has been worked on by the FAO and the World Bank since 2009, and has three stated aims: to increase the productivity of agricultural crops, to mitigate the contribution of agriculture to GHG emissions and to promote adaptation in agriculture to the effects of climate change.

However, CSA is a vague concept which currently lacks the necessary eligibility criteria to prevent violation of rights such as the right to food⁴⁹. It contains no framework to ward against the practice of land grabbing, the negative impacts on smallholders means of subsistence, indebtedness or the privatisation of seeds⁵⁰. There is also a fear that the pressure to adopt Climate Smart Agriculture will force developing countries to transform their family farming-based agricultural systems, which have not contributed to the problem, and to promote agroindustrial models in line with the economic interests of multinationals. In 2017, the Global Alliance for Climate Smart Agriculture (GACSA) was introduced into the Agenda of Solutions⁵¹ which is being developed in the margins of the COPs⁵². The development of models of industrial agriculture as part of voluntary and amorphous climate initiatives leads to the risk of the much-needed agroecological transition being passed over.

For instance, in Bolivia our partner the Centro de Investigación y de Promoción del Campesinado (Centre for Research and Promotion of Smallholders - CIPCA) has noticed the introduction of GMOs in maize and soya crops. The public authorities (be it at state or regional level) seize on climate change and drops in yields as a pretext to introduce genetically modified seeds. CIPCA has been supporting smallholders with the implementation of agroecological projects. Resilience to climate change of these sorts of projects has been repeatedly proven⁵³.

CARBON SEQUESTRATION

The sequestration of carbon in soil is a natural process which results from photosynthesis. Plants absorb carbon dioxide and release oxygen. It is well known that forests play a major role in renewing the oxygen in the atmosphere, especially tropical forests at a global level. When an ecosystem absorbs more carbon than it emits, it is typically known as a "carbon sink". Given the urgent climate risks we face, there is a risk of large scale sequestration efforts violating people's fundamental rights.

Many projects to sequester carbon dioxide emissions have been linked to international compensation mechanisms. At times this can mean sequestering in one country emissions that have been produced in another. This poses questions of international equity and climate justice. Developing countries, including some who are the least responsible for GHG emissions, find themselves sequestering carbon to compensate emissions from developed countries. These measures can also sometimes be a distraction from what is most urgently required by delaying the implementation of policies to drastically reduce GHG emissions and bring about the change of model needed. The challenges are so great that there is no place for compensation as part of a market mechanism to meet the aims of the Paris Agreement¹. Industrialised countries should not rely on low cost emissions reductions in developing countries to hit their climate goals but rather implement ambitious climate policies.

1 CLARA, *Climate Action in the Land Sector – Treading Carefully*, May 2017 <https://www.boell.de/en/2017/04/26/climate-action-land-sector-treading-carefully-clara-group-briefing-climate-negotiators>

MITIGATION MEASURES AND THE LAND SECTOR

The "Zero Net Emissions" goal

Some GHG emissions mitigation policies could lead to intense pressure in the land sector. The Paris Agreement expects the development of long term strategies which should allow each State to "achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century" (article 4). The concept of "zero net emissions" also includes the idea of

49 CCD and C2A Note, *Global Alliance for Climate Smart Agriculture: A fool's bargain?*, Coordination Sud, September 2014

50 A number of the proponents of Climate Smart Agriculture who are members of the Global Alliance for Climate Smart Agriculture (GACSA) are large agroindustry groups who promote an agricultural model often saturated in phytosanitary products and emitting large quantities of GHGs. For the members list see: <http://www.fao.org/gacsa/members/members-list/en/>

51 The Agenda of Solutions is being developed in parallel with the UNFCCC and aims to encourage and showcase initiatives from different actors to demonstrate ongoing climate actions. It raises questions as to the governance and role of the UNFCCC as well as on the framing and eligibility criteria of these multiactor solutions.

52 According to Coordination Sud, *Climate Policies in Agriculture: are they coherent with the development of family and peasant farming in the South?*, The Notes of SUD, January 2018

53 Juan Carlos Torrico Albino, Carmelo Peralta-Rivero, Pamela Cartagena Ticona, Elise Pelletier, *Capacidad de resiliencia de sistemas agroforestales, ganadería semi-intensiva y agricultura bajo riego*, Cuadernos de investigación 84, CIPCA, December 2017

negative emissions, meaning capturing or absorbing carbon present in the atmosphere. Furthermore, all IPCC scenarios feature the sequestration of carbon in soil. In reality, the majority of the scenarios contain an element of overshoot, where temperatures could increase beyond the stated aim before dropping with the development of natural or technological negative-emissions solutions. Historic emission levels do not force us into such a scenario; a drastic reduction of current and future emissions could mean these techniques would not be necessary. Some of large scale sequestration solutions represent a threat to human rights, land rights and food security.

It is important to bear in mind that healthy, diverse, protected and restored ecosystems are carbon sinks⁵⁴. In fact, forests managed by indigenous communities, agroecology and agroforestry all sequester carbon. It is vital that we protect and restore ecosystems and agroecology is a necessary part of this focus; however carbon sequestration in soil is an additional benefit of agroecological practices and it must remain so. Making carbon sequestration in soil the aim of climate policy, without taking into account food security as a central pillar, would represent a major threat to people's food security and rights if there was widespread uptake of the practice. Agricultural approaches should be systemic rather than focussed on carbon.

Forests and the REDD+ mechanism

REDD+ (*Reducing Emissions from Deforestation and Forest Degradation*) is an example of an international sequestration initiative linked to a compensation mechanism. This mechanism seeks to combat



Bolivia, Riberalta community

use of forests for traditional subsistence activities limited⁵⁶, which has a direct impact on their food sovereignty and security.

Moreover, a study commissioned by the European Commission and published in 2016 sounded the alarm on carbon credit mechanisms. 73% of certified emissions reductions under the Clean Development Mechanism from 2013 to 2020 were considered "unlikely" to have "real, measurable and additional" impacts. The report also states that only 2% of projects and 7% of potential certified emissions reductions have a high probability of ensuring additional reductions and of not being overestimated⁵⁷. Some of our partners, such as the Conselho Indigenista Missionário (Indigenous Missionary Council - CIMI) in Brazil reject the term "carbon credits" as they equate it to a "licence to pollute"⁵⁸.

Carbon sequestration in agricultural land

Agricultural land is also affected by carbon sequestration policies, evidenced by the "4 per 1000" initiative launched by the French government during COP21.

⚡ THERE IS A RISK OF FOCUSING ON GROWING CROPS FOR THE EXPRESS PURPOSE OF CARBON SEQUESTRATION, DISPLACING FOOD PRODUCTION. ⚡

climate change by reducing GHG emissions from deforestation and forest degradation using carbon credits. Under the guise of reducing deforestation, the projects sometimes turn out to nothing more than projects to measure the impacts of deforestation. Funds are used to finance experts and studies to measure carbon sequestration, rather than being allocated to communities⁵⁵. In certain REDD+ cases, local populations have seen their access to and

54 Fern, Bread for the World, Rainforest Foundation Norway, Friends of the Earth Norway, *Going Negative: How carbon sinks could cost the earth*, October 2016

55 Basta!, Friends of the Earth, *REDD+ à Madagascar: le carbone qui cache la forêt*, 2013

56 GRAIN, World Rainforest Movement, *How REDD+ projects undermine peasant farming and real solutions to climate change*, October 2015

57 Martin Cames et al., *How Additional Is The Clean Development Mechanism?*, Study prepared for DG Clima, Oko-Institut, March 2016 https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf See also <https://carbonmarketwatch.org/2017/04/18/press-statement/>

58 See the Xapuri Declaration, May 2017: <http://no-redd.com/xapuri-declaration-we-reject-any-form-of-climate-colonialism/>

We do indeed need to urgently restore our soils, and the development of agroecology does require soils to be replenished with organic matter. Nevertheless, the focus placed on carbon sequestration in agricultural land by certain governments and international institutions, notably as part of climate change mitigation policies, generates numerous risks⁵⁹:

- Firstly, by distracting attention away from the need to drastically reduce global GHG emissions, including from agriculture and livestock (methane), and thus not making people question our present energy and food systems
- Secondly, there is a risk of focussing on growing crops for the express purpose of carbon sequestration, displacing food production
- Finally, sequestration is not removal; carbon is always sequestered in a non-permanent manner and variations in temperature or practice can always lead to additional emissions, cancelling out the benefit of a measure⁶⁰. Recent⁶¹ and ongoing studies show that in the medium term, once its storage capacity has been met, the soil cannot store any further carbon and then maintaining the carbon in the soil requires excellent soil management practice.

Bioenergy with carbon capture and storage in soil

Measures such as bioenergy with carbon capture and storage in soil are growing in prominence as different scenarios to limit climate change are studied, above all in scenarios focussed on the 1.5°C goal. Although its large scale feasibility is far from proven, Bioenergy with Carbon Capture and Storage (BECCS) regularly features in UNFCCC discussions of IPCC reports. This technology aims to produce energy from biomass whilst capturing the GHGs emitted at the point of combustion and burying them in soil. However, the surface area required for BECCS-based solutions could lead to strong competition for access to land and the socio-environmental ramifications could be catastrophic⁶². The IPCC estimates that

between 500 million and 3 billion hectares of land would be necessary to grow the biomass needed to keep global warming below 2°C⁶³, whilst the current total cultivated land for all crops is 1.5 billion hectares⁶⁴. These risks (for the time being potential) are similar to those stemming from biofuels: deforestation, land grabs and food insecurity.

Biofuels

Industrial biofuels is another climate measure touted as the solution to reduce the transport sector's reliance on fossil fuels. However, they have disastrous human and environmental consequences.

- Taking into account the full production lifecycle and the indirect impacts on land use, biodiesel emits on average 80% more GHGs⁶⁵ than the traditional diesel it replaces. Rape seed or palm oil plantations shift land from food production to biofuels. An increase in land used for farming causes deforestation and land grabbing⁶⁶. A report shows that, prior to 2020, 21 million hectares will be needed to meet European targets for the incorporation of fuels considered to be renewable in transport⁶⁷
- This also represents a threat to the food security of populations owing to their displacement, the destruction of their means of subsistence and price volatility in food markets as a result of increased demand for agricultural commodities. According to a study published in 2014, the land used to produce biofuels could feed 550 million people globally⁶⁸

For example, in Brazil our partner CIMI has highlighted that 25 year contracts have been concluded between businesses and farmers to produce palm oil for biofuels. All of the palm oil produced is purchased by the business which provides inputs, seeds and training. However, there is no guarantee of price or economic viability for the farmer. They no longer produce for themselves and smallholders' food security is threatened.

59 Carbon Market Watch, *Using Nature to Pardon Environmental Pollution. Risks of agriculture sequestration offset*, December 2015

60 For further information see: CCFD-Terre Solidaire, *Our land is worth more than carbon*, May 2018 <https://ccfd-terresolidaire.org/infos/environnement/politiques-climat-nos-5689>

61 Ajani J. I., Keith H., Blakers M., Mackey B. G., King H. P., *Comprehensive carbon stock and flow accounting: A national framework to support climate change mitigation policy*, *Ecological Economics* 89, 2013, pp 61-72. Mackey B. Prentice I.C., Steffen W., House J. I., Lindenmayer D., Keith H., Berry S., *Untangling the confusion around land carbon science and climate change mitigation policy*, *Nature Climate Change*, Vol 3, 2013

62 CLARA, *Climate Action in the Land Sector – Treading Carefully*, May 2017 <https://www.boell.de/en/2017/04/26/climate-action-land-sector-treading-carefully-clara-group-briefing-climate-negotiators>

63 IPCC, AR5, 2013, p 446 www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter6.pdf p 446; IPCC, AR5, 2013, p 12 www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_summary-for-policymakers.pdf

64 FAO, *Fast facts: The State of the World's Land and Water Resources* www.fao.org/fileadmin/user_upload/newsroom/docs/en-solaw-facts_1.pdf

65 <https://www.transportenvironment.org/news/biodiesel-80-worse-climate-fossil-diesel>

66 Oxfam International, *The Hunger Grains*, 2012 <https://policy-practice.oxfam.org.uk/publications/the-hunger-grains-the-fight-is-on-time-to-scrap-eu-biofuel-mandates-242997>

67 GRAIN, *Land Grabbing for biofuels must stop*, February 2013

68 Maria Cristina Rulli and Paolo D'Odorico, *Food appropriation through large scale land acquisitions*, *Environmental Research Letter*, 2014

QUESTIONING PAYMENTS FOR ENVIRONMENTAL SERVICES

Payments for Environmental Services (PES) is the name given to a payment mechanism for preserving biodiversity, combatting land degradation, preserving water sources or any other environmental "service" for humans. The aim is to provide financial incentives to encourage the protection of natural resources and ecosystems based on a measurement of the outcome of the service provided. They feature in many nature conservation initiatives.

This practice raises a number of questions. The first is moral: do we have the right to assign a monetary value to nature and on which basis do we define and measure this value? In fact, *"the economic value of nature can only be estimated on the basis of the goods or services it spontaneously produces and which the production systems take*

control of. We also need to ascertain the price future generations will ascribe to nature (...). The preference for the future and the wellbeing of the future generations is a moral (and political) choice".

In addition to the ethical issue of the financialisation of nature, PES can also threaten traditional forestry practices such as gathering which in turn threatens food security. In Mexico, a PES project paid local communities to protect a forest for the ecosystem services provided by its watershed while banning the traditional use of the forest².

The emergence of markets for services linked to forest ecosystems (such as REDD+ for carbon sequestration) has attracted new private sector investors. There is debate

around the opportunities PES present for new sources of revenue in rural areas and the incentives for environmental protection. However, local communities and NGOs denounce the threat posed by encouraging large scale practices, which favour richer farmers, owing to the risk for access to land and resources for smallscale family farmers or women.

Finally, there is also the risk of reinforcing already existing inequalities. In fact, it is often private landowners, already in a privileged position, or collective entities, such as businesses or the State, who receive payments. Local communities rarely benefit³.

A cautious approach to PES is therefore needed. A rights-based approach and respect for land and territorial rights is often more effective than a focus on financialisation⁴.

1 Xavier Ricard-Lanata, *Chasser le PIB, il revient au galop*, Revue Projet, February 2018, pp 11-18

2 HLPE, *Sustainable forestry for food security and nutrition*, June 2017

3 Virginie Marie, *Nature à vendre, Les limites des services écosystémiques*, Editions Quae, February 2014

4 See the Climate, Land, Ambition and Rights Alliance report to be published in October 2018

INSECURE LAND TENURE

Respect for the principles of the Paris Agreement and human dignity in the implementation of climate change adaptation and mitigation actions must consider the security of people's land rights, above all for the most vulnerable. The land sector is particularly affected by mitigation measures whilst also being a key sector for food security and the development of agroecology. In fact, 20% of the world's hungry are landless smallholders⁶⁹.

THE AGROECOLOGICAL TRANSITION: A LENGTHY PROCESS WHICH REQUIRES SECURE LAND TENURE

The agroecological transition is a long process. Soil fertility needs to be recovered as well as the establishment of an agroecosystem which includes trees, crop rotation needs to be instigated, etc. Deforestation, soil sealing and salinisation owing to rising water levels are all environmental threats which undermine the development of agroecology, and indeed all agriculture. Thus we urgently need to disseminate good soil

management practices to ensure food security for future generations. These are medium and long term investments, yet the perception of costs in the short term often takes precedence in farmers' analysis of threats and opportunities. The long transition period requires security of tenure over a number of years.

LAND GRABBING – A GLOBAL THREAT

Farmers all around the world are faced with the growing threat of land grabbing. Export-based agriculture encourages investments in areas of hundreds of thousands of hectares to grow soya, palm oil and sugar cane⁷⁰, contributing to smallholders being forced off their land and deforestation. The increase in this type of investment reduces the security of land tenure and runs counter to the development of agroecology.

Estimates vary but, according to the Land Matrix database (which while not exhaustive is probably the most complete source of information⁷¹), 50 million hectares of land has been grabbed around the

69 UN Millennium projects, *Halving Hunger : it can be done : summary version*, UNDP, 2005

70 "The EU, for example, imported an average of 119,000 tons of sugar per year from Mozambique from 2001 to 2016. These imports increased 15-fold during this period. (...) At the same time, Mozambique's food deficit increased 6-fold over the 2001-2016 period." See: Coordination SUD, *Common Agricultural Policy and Economic Partnership Agreements: are they coherent with the development of family and peasant farming in the South?*, The Notes of Sud, January 2018

71 These large financial transactions are notoriously opaque making it difficult to gather data on the subject



Mexico, Caritas San Cristobal, village of Salto del Agua

S. ILECLEZIO / SCOF

world⁷². The target countries are primarily developing countries which therefore poses questions of international equity⁷³.

Property rights and land governance are essential issues. Some cohorts of populations suffer severe discrimination in terms of access to the means of subsistence that land represents. In many countries, indigenous populations see their territories violated. In Bolivia notably, laws state that the sub-soil remains the property of the State even if indigenous peoples have acquired collective land rights⁷⁴. In Bangladesh women are not allowed to own land. They receive 20% of their husband's land and only 4% have an official deed⁷⁵. Caritas Bangladesh has underscored the major legal gaps which exist at a national level for guaranteeing women's land rights⁷⁶. Similarly, property deeds are not updated from generation to generation which leads not only to fragmentation of land but also to land registries not updated for a number of generations.

The development of agroecology is primarily hindered by an economic, political, cognitive and structural straitjacket which does not allow for the upscaling necessary to guarantee food security for people living in a world under climatic constraints. Solutions do exist however, if States show strong po-

litical will in adopting the necessary public policies. In the following part, this report sets out proposals for such a set of policies.

LAND GRABBING

The definition of land grabbing most widely accepted by NGOs working on the subject comes from the "Tirana Declaration", adopted in 2011, by the International Land Coalition, an NGO collective working on land issues in both the North and South. Land grabbing occurs when one or more of the following conditions are met:

"(i) in violation of human rights, particularly the equal rights of women; (ii) not based on free, prior and informed consent of the affected land-users; (iii) not based on a thorough assessment, or are in disregard of social, economic and environmental impacts, including the way they are gendered; (iv) not based on transparent contracts that specify clear and binding commitments about activities, employment and benefits sharing, and; (v) not based on effective democratic planning, independent oversight and meaningful participation¹."

¹ http://www.landcoalition.org/sites/default/files/documents/resources/AOM%202011%20report_web_FR.pdf

⁷² The Land Matrix Global Observatory, <https://landmatrix.org/en/>

⁷³ <https://landmatrix.org/en/get-the-idea/global-map-investments/>

⁷⁴ <https://bolivia.infoleyes.com/articulo/76563> See also article 359 of the Constitution: https://www.oas.org/dil/esp/Constitucion_Bolivia.pdf

⁷⁵ <https://www.economist.com/banyan/2013/08/21/who-owns-bangladesh>

⁷⁶ For further information see: <https://www.ohchr.org/Documents/HRBodies/CEDAW/RuralWomen/CDABangladesh.pdf>

PART 3

**MEETING THE CLIMATE AND FOOD
SECURITY CHALLENGES
THROUGH AMBITIOUS
AND COHERENT PUBLIC POLICIES**



Senegal, village of Ndayane

FACED WITH THE DUAL CHALLENGES of combating climate change and eradicating poverty, and given the key obstacles blocking the deployment of agroecology, a new approach to food systems is essential. Upscaling agroecology requires a change in agricultural practice. This implies that policies are needed to create and consolidate the structural conditions for this transition at a local and global level. More particularly, smallholders need to see their land rights recognised, their rights to using their own seeds guaranteed, their participation ensured, their rights to develop local knowledge and to maintain a spiritual relationship to nature secured. All of these elements provide assurance of food sovereignty and in some cases sovereignty over their means of subsistence. A structural and holistic approach is thus vital to meet the present and future climate and food security challenges whilst also contributing to the fight against poverty.

The following recommendations seek to reinforce the political debates ongoing at different levels on both agricultural models and climate policy. In fact, the measures taken to mitigate emissions and adapt to climate change represent an opportunity to catalyse a true agroecological transition. Decisions taken at an international level, notably as part of the UNFCCC, in the Committee on World Food Security and in relation to international trade agreements, must be linked to the national level, notably important for the implementation of the Paris Agreement, and the territorial level. These different levels of intervention are set out in the following pages.

THESE RECOMMENDATIONS ARE BASED ON AN ANALYSIS OF THE OBSTACLES HAMPERING THE DEVELOPMENT OF AGROECOLOGY AS WELL AS THE PRACTICES AND RECOMMENDATIONS FROM OUR PARTNERS WHO ARE IMPLEMENTING THE TRANSITION ON THE GROUND IN VERY DIFFERENT NATIONAL CONTEXTS.

These recommendations are based on an analysis of the obstacles hampering the development of agroecology as well as the practices and recommendations from our partners who are implementing the transition on the ground in very different national contexts. Whilst there is no "one size fits all" solution, the recommendations set out in continuation outline different, often complementary, approaches which

can respond to key issues of an agroecological transition and which should be tailored to national and territorial contexts.

The first Secours Catholique-Caritas France report on the topic, *Agroecology and Sustainable Development*⁷⁷, set out a series of recommendations aimed at policy makers. With this second report we aim to expand on the original recommendations and to present new proposals in light of the societal change advocated in the Paris Agreement.

77 Secours Catholique-Caritas France, *Agroecology and Sustainable Development*, January 2017

I. MEETING THE CLIMATE CHALLENGE IN THE AGRICULTURAL SECTOR – AN OPPORTUNITY TO INITIATE THE AGROECOLOGICAL TRANSITION

Climate change poses many risks that the food and agriculture sector will have to meet in order to ensure food security for all and to drastically reduce GHG emissions. Although the implementation of climate policy does represent a challenge, it also represents a tremendous opportunity to rethink our food systems from end to end, to recreate links to territories and to make them fairer and more equitable. More than an opportunity, it is a necessity.

IMPLEMENTING THE PARIS AGREEMENT BY DEVELOPING AGROECOLOGY

With the Paris Agreement, governments have committed to keeping climate change below the 2°C guardrail by the end of the century and to aiming to keep it as close to 1.5°C as possible. The instrument to achieve this are Nationally Determined Contributions (NDCs) with each State setting its own scenario for national emissions reduction and eventually adaptation measures⁷⁸ for different sectors. The sum of the NDCs must make it possible to achieve the

PLACE FOOD SECURITY AT THE HEART OF ALL CLIMATE ACTION IN THE AREA OF AGRICULTURE AND TO OVERCOME THE LOGIC OF INCREASED FOOD PRODUCTION AT ALL COSTS.

objective of the Paris Agreement in a *bottom-up*⁷⁹ approach. A food system approach within the NDCs is essential. Focussing on the agricultural sector, there is an urgent need to boost support for agroecology, an adaptation solution to climate change which also leads to reduce emissions linked to the use of pesticides. NDCs must therefore formulate the lay out of transition to agroecology for national food systems, paying particular attention to small scale farmers, with the aim of guaranteeing food security for the poorest and preserving the environment for present and future generations. A holistic approach is essential to begin this transition.

KORONIVIA JOINT WORK ON AGRICULTURE – PROVIDING GUIDELINES TO BRING ABOUT THE TRANSITION

The work on agriculture within the UNFCCC yields another opportunity. During COP23, States agreed on the creation of the *Koronivia Joint Work on Agriculture* (KJWA) for a 3 year period. The KJWA has been tasked with producing policy and technical recommendations to be presented at COP26 in 2020, coinciding with the Paris Agreement coming into force.

The KJWA will examine the different topics relevant to agriculture in line with a guiding principle mainstreamed into all discussions, that being “the vulnerabilities of agriculture to climate change and approaches to addressing food security⁸⁰”. By applying the four pillars of food security in all discussions and integrating them into the recommendation emanating from this work, the KJWA has the opportunity to place food security at the heart of all climate action in the area of agriculture and to overcome the logic of increased food production at all costs. The KJWA offers a key opportunity to direct negotiations on climate change adaptation and mitigation measures in the agricultural sector in the right direction. This should allow for an evaluation of existing policies in light of a holistic approach to food security and build future climate policies on this basis. Strong political will is needed to guide discussion towards helping the most vulnerable, and therefore towards agroecology.

The KJWA discussions should also provide the impetus and the intervention frameworks for an effective agricultural transition by advocating the following aspects:

- Directing climate finance in the agricultural sector towards agroecology
- Adoption of criteria grids requiring consideration of the four pillars of food security and sustainability criteria
- Implementation of existing international instruments: the Voluntary Guidelines on the Responsible Governance of Tenure of Land⁸¹, the Voluntary Guidelines on the Right to Food⁸², the ten Principles for Responsible Agricultural Investment⁸³ and the UN Guiding Principles on Business and Human Rights⁸⁴.

78 The debate is still open on the different elements which should be included in NDCs. The implementing rules for the Paris Agreement should be finalised by COP24 in December 2018.

79 Contrary to the Kyoto Protocol, which adopted a top-down approach by beginning with setting emissions reduction targets for developed countries, the Paris Agreement adopts a bottom-up approach which ensures that the sum of the NDCs will allow for the global goals to be met.

80 See FCCC/CP/2017/11/Add.1

81 http://www.fao.org/fileadmin/user_upload/newsroom/docs/VG_en_Final_March_2012.pdf

82 <http://www.fao.org/3/a-y7937e.pdf>

83 <http://www.fao.org/3/a-au866e.pdf>

84 <https://www.business-humanrights.org/sites/default/files/media/documents/ruggie/ruggie-guiding-principles-21-mar-2011.pdf>



Senegal, village of Ndayane

The establishment of guidelines and an intervention framework is equally an opportunity to ensure the coherence of public policy.

SECURING TENURE – THE CORNERSTONE TO COMBATING CLIMATE CHANGE

Among the existing instruments, those related to the security of tenure in particular are a fundamental element to ensure respect for the environment, the cornerstone of strategies to combat climate change. Respect for land rights, notably those belonging to indigenous peoples, is key for any mitigation strategy for a rights and nature-based solution. Indeed, indigenous peoples play

a key ecosystem conservation role in protecting global carbon stocks, particularly in tropical forests. Land access and secure tenure must therefore be the core principles for all climate policy and should be integrated into NDCs, National Adaptation Plans and territorial strategies as well as being the guidelines for climate finance. Securing land rights for small farmers and indigenous peoples not only facilitates the development of agroecology by allowing the necessary time for transition but also prevents the development of the false solutions based on carbon sequestration in soil represent through various technologies. The carbon sequestration in agricultural land must be expressly excluded from any compensation measure for other sectors. ■

II. LINKING FOOD SYSTEMS TO TERRITORIES

The upscaling of agroecology will only be possible if producers are able to provide their products, via short circuits, to local markets. A number of actions to develop agroecology need to be taken at a local level, without forgetting the need to create an enabling administrative and legal framework at a national level.

As such, local conditions need to be created so that rural populations can and want to remain on their land, as highlighted by our Brazilian partner the Movimento dos Trabalhadores Rurais Sem Terra (Landless Workers' Movement - MST).

Numerous measures, to be adopted at a local level and supported by a favourable national framework, can strengthen the linkage of food systems to a territory.

SUPPORTING LOCAL ECONOMIC DEVELOPMENT INITIATIVES

It is vital to support the creation and networking of small scale farmers organisations, cooperatives or other collective structures. This guarantees fair remuneration and allows farmers to manage their production and outlets directly.

Secondly, it is also essential to invest in infrastructure to provide access (notably roads) to overcome the isolation of regions so as to develop agroecology at a regional level.

The development of local storage and processing infrastructure at the local level also makes it possible to strengthen markets and improve food sovereignty at territorial level via agroecology. In this way, as experienced by Caritas Kaolack in Senegal, local processing and marketing of products boosts the attractiveness on the market and thus gives outlets to products on markets.

PRIORITISING SHORT CIRCUITS FOR THE LOCAL DEVELOPMENT OF AGROECOLOGY

Strengthening the marketing of products on local markets is another crucial factor. In the Magdalena Medio region of Colombia, our partner the Programa de Desarrollo y Paz del Magdalena Medio (Programme of Development and Peace in Magdalena Medio - PD-PMM) has set up a platform associating producers and consumers. By gathering data on the needs of territorial markets as well as on supplies available from local smallholders, the platform provides for networking and for matching supply and demand. This eliminates the need for intermediaries and contributes to local food security whilst respecting cultural preferences and avoiding imported products. From a food standpoint, the PDPMM has built a real reflection on the territory, underscoring a view of indigenous economic development which could be used to think public policies for scaling up agroecology.

PUBLIC AND PRIVATE FUNDING ON AGRICULTURE SHOULD BE REDIRECTED TO PEASANT AGROECOLOGY.

Caritas Kaolack in Senegal does important work raising awareness with smallholder organisations and the population in order to favour local consumption and production. The awareness consumer of local people who notice that locally processed and sold products taste better also strengthens territorial cohesion since consumers recognize themselves in the product.

The development of public procurement schemes from small scale farmers producing in accordance with agroecology can also boost its development. In Brazil, the Zero Hunger programme has enabled the development of a programme allowing schools to obtain supplies from family farmers, providing subsidies of 30% if the products were agroecological⁸⁵. This is an example of public policy which il-



Senegal, village of Ndayane

lustrates the clear link between agroecology and food security. Nevertheless, without questioning the programme's positive outcomes, the CIMI notes that, under these conditions, producers lose their food sovereignty as the State is responsible for ordering and imposes crop choices.

"Organic" or "Agroecology" certification labelling schemes raise awareness among consumers, adds the value to the product and allow for better integration of producers into (local, if possible) economic circuits. However, these schemes are often expensive owing to high certification costs. The MST works with a "participatory certification" tool administered by the Brazilian Ministry of Agriculture. It creates a hub which certifies produce. Producers can then create a network, and those who are already certified can train and certify others. The certification also leads to "farmer to farmer" capacity building as the trainers are in daily contact and support families during the transition. Verification visits are conducted regularly and the data is entered into a database via the certification hub. The initial certification process takes over a year and checks are then continuous. Anyone who stops following the specifications is separated from the rest of the group. Peer to peer checks are strengthened by the fact that the discovery of pesticides residues would lead to the loss of the label for the whole network. This participatory system yields many advantages: training, peer to peer checks as well as reduced certification costs.

PROTECTING SMALLHOLDER NETWORKS AGAINST COMPETITION FROM INTERNATIONAL TRADE

The upscaling of agroecology requires not only a favourable economic environment, but also limiting competition from low cost (as a result of subsidies) imports which destabilise local markets. This implies, at both international and national level, to recast trade policies which guarantee respect for the sovereignty of developing countries in the design and implementation of trade agreements and which pay special atten-

tion to food sovereignty. Small scale farmer organisations also need to be involved in the design of said policies. For example, Caritas Kaolack has seen that following the government's freezing of imports of certain foodstuffs (poultry, onions, potatoes and rice), national production grew significantly⁸⁶. Furthermore, it is paramount to ensure that trade agreements are aligned with commitments taken under the Paris Agreement.

BRINGING MULTINATIONALS INTO THE HUMAN RIGHTS FRAMEWORKS

To ensure that major corporations act in a manner consistent with international human rights commitments, all multinational enterprises should be subject to binding instruments, as with laws on duty of care. States should progress swiftly and constructively in the negotiations for the Treaty on Businesses and Human Rights under discussion at the United Nations to create a binding framework for these increasingly powerful private entities.

DIRECT FINANCING TOWARDS PEASANT AGROECOLOGY

Changing our food systems means we need to transform our current model. Similar to the growing movement to renounce fossil fuels⁸⁷, public and private funding on agriculture should be redirected to peasant agroecology. Subsidies for pesticides distort prices and do not encourage transitioning. Moreover, it seems that redirecting national agriculture budgets to the purchase of public

goods is particularly beneficial for smallscale family farming. Indeed, research based on the study of 15 Latin American countries over the period 1985–2001 indicated that, within a fixed national agriculture budget, a reorientation of 10% of these credits towards public goods increases agricultural per capita income by 5%. By increasing the share of public expenditure on agriculture by 10% but without changing its distribution, agricultural income per capita only increases by 2%. The challenge is therefore to arrow national agriculture budgets differently.

ADOPTING A TERRITORIAL AND HOLISTIC APPROACH

The holistic approach needed for the agroecological transition also entails policy measures which affect other sectors at the local level; our Brazilian partner the MST highlights education as an example. For instance, States need to provide local education facilities – commuting 60km to go to school in a city does not encourage people to remain in rural areas nor does it show them the opportunities that exist there.

Public policies that promote the deployment of agroecology are policies that not only take into account aspects of supporting agricultural practice, but also promote development and a dignified life on the territory. This must be based on several approaches, including education, the creation of economic opportunities on the territory, respect and promotion of local crops and seeds, and finally food sovereignty. ■

III. TRANSFORMING GOVERNANCE

The development of agroecology is inextricably linked to a political and democratic transformation, especially at the local level. The agroecological transition is inseparable from respect of rights, people's empowerment and appreciation of people's knowledge.

PROMOTING A RIGHTS-BASED APPROACH

Access to water, land and seeds are undeniable pre-requisites for agroecology. They are crucial in the realisation of the right to food and should be governed by a rights-based approach. "Under a human rights-based approach, the plans, policies and processes of development are anchored in a system of rights and corresponding obligations established by international law. This helps to

promote the sustainability of development work, empowering people themselves— especially the most marginalized—to participate in policy formulation and hold accountable those who have a duty to act⁸⁸."

In the context of agroecology, a rights-based approach means the realisation of the rights to seeds, land and water. This must be translated into public policies and the rights-based reforms. Peasant seeds must be allowed to circulate freely between small scale farmers, without being privatised or patented. For CENDI (Vietnam), agroecology requires diversity and seeds must belong to the most vulnerable populations; indeed it is the priority to allow for the installation of agroecology. Seeds cannot be subject to trade agreements. The seeds exchange

86 For example, see: <http://www.inter-reseaux.org/publications/revue-grain-de-sel/48-mecanisation-et-motorisation/article/la-regula>

87 Fanny Lajarthe, Edwin Zaccai, *Le mouvement de désinvestissement des énergies fossiles : une nouvelle phase de mobilisation pour le climat?*, Vertigo - la revue électronique en sciences de l'environnement (on line), Débats et Perspectives, 2017, uploaded 13 March 2017, consulted 18 June 2018-URL : <http://journals.openedition.org/vertigo/18265>

88 United Nations High Commissioner for Human Rights: <https://www.ohchr.org/Documents/Publications/FAQen.pdf>

and sharing must be encouraged with seed banks and fairs. According to CIPCA (Bolivia), this role must be guaranteed by the state.

“OBTAINING LAND DEEDS AND SECURING TENURE RIGHTS ARE NECESSARY TO SUSTAINABLY ENRICH THE LAND AND ACHIEVE SUFFICIENT QUANTITY AND QUALITY OF PRODUCTION.”

Progressing towards the right to land is also necessary. This can take different forms depending on national legislation, local customary laws and past and future agrarian reforms. Our partner CENDI works on this land issue, demarcating indigenous territories, which is seen as the first steps towards an ecological use of territories. Obtaining land deeds and securing tenure rights are necessary to sustainably enrich the land and achieve sufficient quantity and quality of production. This is vital for the right to food. Similarly, secure land tenure is considered to be part of the right to food by the Committee on Economic, Social and Cultural Rights. Land issues are central to all issues of inequality and must be considered a human right.

INTERNATIONAL LAW ON LAND AND SEEDS

The 2007 Declaration on the Rights of Indigenous Peoples recognised a number of fundamental rights, such as the right to self-determination, the right to maintain their own political and social institutions, the right to land and to territory, the right to free, prior and informed consent, the right to preserve, control, protect and develop their cultural heritage and traditional knowledge, including seeds.

Convention 169 of the International Labour Organization (ILO) also recognises these rights which are vital for the development of agroecology. There is however a legal vacuum in international law on the protection of the rights of non-indigenous peasant population.

A draft Declaration on the Rights of Peasants is currently under discussion at the Human Rights Council in Geneva¹. The rights to land and to peasant seeds are the basis of the draft text. The adoption of this Declaration and its application at national level is a crucial step towards the recognition by States of these rights and thus to fight against the discrimination that defenders of territories suffer throughout the world. Only small scale farmers can spearhead the agroecological transition.

1 See: <http://www.ohchr.org/EN/HRBodies/HRC/RuralAreas/Pages/WGRuralAreasIndex.aspx>

Given that the right to land is a prerequisite for the development of agroecology, its translating into public policy may imply redistributive agrarian reform. The clarification of a Western concept of property rights is a possible solution, but it is not the only solution and a certain number of factors need to be taken into account. The current predominant framework does allow for individual, and less frequently collective, land rights to be clarified. However, this approach also encourages investment; those who have the resources buy, those who do not sell. The NGO FIAN International suggests considering customary and collective practices and systems, whilst understanding and remedying the discrimination against certain groups, including women, in these systems. In Brazil a number of categories of land titles exist, one which is inalienable and indivisible – “indigenous lands”. CIMI, our partner in Brazil, notes that the demarcation of land as “indigenous lands” allows the implementation of better environmental and food sovereignty policies, contrary to other categories which allow for the transfer, splitting or leasing of land. Also in Brazil, the MST favours collective titles in its land reclamation or secure strategies. In Brazil, collective titles allow the usufruct of land which continues to belong to the state, which allows greater security, and the management of a Common.

EMPOWERING LOCAL COMMUNITIES FOR THE MANAGEMENT OF THE COMMONS

In research circles as well as in development agencies, such as the *Agence Française de Développement*, reflections are increasingly being developed around the management of the Commons. A paradigm change is needed to shift our starting point. We need to move beyond thinking in terms of ownership and start thinking in terms of decisions and management – “The Commons is to think as a co-activity and not as a co-membership, co-ownership or co-possession⁸⁹”.

According to the anthropologist Etienne Le Roy, in reality between a quarter and a third of humanity already has recourse to the Commons in a more or less exclusive manner⁹⁰. This means that this pre-existing rationale provides for long term secure land tenure for populations, without the need to introduce market dynamics. As a consequence, governance models also need to be examined. The aim is to ensure that collective ownership and the social and cultural role of land and water are integrated into agrarian and land policies and reforms.

89 Etienne Le Roy, *Maîtriser la révolution des communs dans les rapports fonciers : l'expérience des Comores*, Papiers de Recherche AFD, n°2017-46, 2017

90 Ibid



Mali, village of Guihono

Land rights raise serious governance issues which go hand in hand with the participatory processes inherent to agroecology. By empowering peasants through creating spaces for dialogue, exchange and participation, agroecology enables a transformation in relations of power and provides new decentralised and locally adopted power structures. The self-organisation this encourages is especially pertinent for land related issues. To achieve this, it is vital to recognise the right to consultation for all inhabitants of a territory, and to expand it beyond the indigenous peoples alone⁹¹.

RECOGNISING THE KNOWLEDGE OF POPULATIONS

For our Brazilian partner CIMI, the question of indigenous peoples' knowledge and power to act is a potential to be exploited with a view to food sovereignty. This statement can also be applied to all rural populations. Indigenous peoples have knowledge relating to seeds, to agricultural production, to culinary traditions, which allow for the development of resilient agroecological systems. The valorisation of this knowledge, accompanied with the cultural and spiritual dimensions, allows to have an integral view of food systems. Indigenous peoples also have an internal social organisation that allows for dis-

INDIGENOUS PEOPLE HAVE KNOWLEDGE RELATING TO SEEDS, TO AGRICULTURAL PRODUCTION, TO CULINARY TRADITIONS, WHICH ALLOW FOR THE DEVELOPMENT OF RESILIENT AGROECOLOGICAL SYSTEMS.

cussion, debate and the co-construction of a local agroecological model. Communities need to be empowered so they can demand appropriate public policy from the state, which in turn needs to maintain dialogue with all of the actors present in a territory. Many of our partners in different countries (Senegal, Vietnam, Bolivia etc.) train in agroecology through local community networks, directly from peasants to peasants. The conversion is driven by peers who see others producing agroecologically and see the results. CENDI encourages older people to teach customs and to share their knowledge.

Refocussing on local knowledge makes it possible to revitalize the farming profession, to give it meaning, to enhance qualifications and a strong knowledge of the territory. ■

⁹¹ On this subject see: <https://carbonmarketwatch.org/publications/practitioners-guide-for-local-stakeholder-consultation-how-to-ensure-adequate-participation-in-climate-mitigation-actions/>



Senegal, village of Ndayane

E. PERRIOT / SCOF

IV. REMODELLING INDICATORS

A central aspect of defining public policy is the choice of evaluation indicators. By focussing on Gross Domestic Product, the Human Development Index (HDI) or, in agriculture, on production volumes, public policy will be drawn up in line with strong economic objectives.

“ A GOOD PUBLIC POLICY FOR AGROECOLOGY MUST SUPPORT FARMERS’ INITIATIVES AND ENCOURAGE THEIR EMERGENCE, ”

Moreover, there is a paucity of data on farmers producing agroecologically, and on the family farming sector in general, which creates a bias when it comes to defining policy. CIPCA in Bolivia deplores the visibility on the economic benefits of industrial agriculture while there is a lack of data on small family and agroecological farming. The data paints a biased picture and does not take into account local results in terms of food security. If we take the example of the HDI in Brazil, indigenous peoples register as the poorest. This picture is untrue however, according to

CIMI. Indicators that factor in *buen vivir* are needed. Efforts that meet economic goals do not take into account food security, fundamental rights or wellbeing of local populations. The Sustainable Development Goals (SDGs), adopted in 2015, are 17 global goals comprising 169 targets⁹². It is an improvement in the creation of instruments to devise new public policy but few countries can actually afford to monitor all of the indicators because they lack a sufficient statistical capacity⁹³. There is no shortage of proposals for alternative indicators at present, but their operationalization remains unfilled.

The inequalities faced by the poor are a prominent barrier to the development of agroecology: inequality of access to justice, discrimination, land threats, violence, eviction, economic inequalities, access to training etc. These inequalities stop small scale farmers from playing their role as the leading actors in the agroecological transition.

Assessment measures should reflect a holistic approach to food systems. This means that a number

92 <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

93 Xavier Ricard-Lanata, *Chassez le PIB, il revient au galop*, Revue Projet, February 2018, pp 11-18

of factors at territorial level need to be taken into account. It also means not applying measures that have a negative impact on populations and stop pursuing public policies that specifically aim to improve performance against holistic indicators.

- From a social point of view, indicators guiding public policy must take into account the four pillars of food security (availability of food, physical and economic access, nutritional and health quality and regularity of the three previous pillars), the income of peasants as well as public health
- From an environmental point of view, it is essential to integrate sustainability indicators into all measurement of development: methane, nitrous oxide and carbon dioxide emissions as a result of development activity, maintenance and restoration of soil fertility, water pollution, biodiversity, ecosystem integrity etc.
- From a political point of view, the proper functioning of agroecological food systems must assess the power of populations to act and in particular the participation of women in decision making. A good public policy for agroecology must support farmers' initiatives and encourage their emergence, without taking the leadership in the implementation of agroecological projects that do not correspond to local peasant realities. Initiatives need to be allowed to develop from the community level by creating an enabling environment

→ Finally, from an economic point of view, quantitative and qualitative indicators, which take into account profitability, productivity, jobs created and the dignity of revenue, must be used to measure the impact of public policy.

On this basis, it must be noted how difficult, or impossible, it would be to fully measure wellbeing⁹⁴.

This remodelling of indicators also needs to be reflected in research programmes, agricultural higher education and continued training programmes. CENDI notes that the link between research and smallholder activity on the ground is essential to design agroecological systems which are effective in all their dimensions. Caritas Bangladesh identifies innovations made by peasant women and men and encourages dialogue with researchers through participatory research methods. Agricultural programmes and agricultural schools should work in this way. Academic research must also focus on the social and cultural aspects of food systems to develop a holistic approach.

Finally, it must be borne in mind that indicators must be holistic and evolving. Climate change brings with it significant consequences which will necessitate the regular revision of public policy and the indicators that define them. ■

BUEN VIVIR

The agroecological transition affects food, biodiversity, the link to nature and territories (including spiritual), the local social fabric and decent income, and more generally implies adopting a holistic approach. The link with reflections on *buen vivir* – *living well* – is unavoidable given that agroecology responds to "an imperative of general interest: the viability of agroecosystems and human societies¹."

Placing public policies at the service of *buen vivir* in a society calls for the definition of new indicators. Some trials have taken place, such as Gross National Happiness index

(GNH) in Bhutan. It means taking "a holistic and cross-cutting approach" rather than focussing on distinct sectors. "Before becoming an indicator it was a vision of society anchored in the traditions, values and culture of the country. In other words, the GNH allows a way of life to be understood." As such, it is a vision of society based on the culture, values, social links and traditions that directs policy rather than a vision based on economic performance².

GNH is one example among others of the will to apply a philosophical vision to the definition of indicators for public policy. For CIMI however,

it is a way of trying to understand each different indigenous people, each different community, with their own social and cultural specificities. Different aspects need to be taken into account: food, recognition of land rights, the absence of pollution, the ability to have their own social organisation, tranquillity, the right to hunt or fish freely, health, education ...

Finally, beyond the establishment of new indicators, reflection must go further by not seeking to standardise "moving diversity³" in a single metric. *Buen vivir* is in fact "a world vision that invites us to think and act differently⁴."

1 Xavier Ricard Lanata, *L'agroécologie : noyau dur d'une alternative au capitalisme*, Revue Projet, February 2013, pp 63-70

2 Céline Whitaker, *Que nous apprend le « bonheur national brut »*, Revue Projet, February 2018, pp 26-30

3 Pablo Solon, *Le « buen vivir », une autre vision du monde*, Revue Projet, February 2018, pp 66-72

4 Ibid

AGROECOLOGY – A DECIDEDLY POLITICAL TRANSITION

*“There is a great variety of small-scale food production systems which feed the greater part of the world’s peoples, using a modest amount of land and producing less waste, be it in small agricultural parcels, in orchards and gardens, hunting and wild harvesting or local fishing. Economies of scale, especially in the agricultural sector, end up forcing smallholders to sell their land or to abandon their traditional crops. Their attempts to move to other, more diversified, means of production prove fruitless because of the difficulty of linkage with regional and global markets, or because the infrastructure for sales and transport is geared to larger businesses. **Civil authorities have the right and duty to adopt clear and firm measures in support of small producers and differentiated production.**” *Laudato Si’, 129**

This is how Pope Francis summarises the stakes blocking the development of agroecology in his encyclical *Laudato Si’*, and calls on public authorities to remedy the situation. This report makes recommendations covering different sectors and different levels of intervention needed, as agroecology requires a global and holistic transition. The subject is undeniably political, and to focus too much on the technical approach, we do not take the necessary measures to remove the barriers to the development of agroecology, which is also a social vision. The development of public policies consultation with the population concerned and responding to an imperative of coherence between them, constitutes the challenge to be taken by the States. ■



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