



“Impact studies are crucial for the amplification of agroecology”

Clara Nicholls is the president of the Latin American Scientific Society of Agroecology (SOCLA). For over three decades, she has worked in Latin America teaching, researching and, promoting agroecological alternatives to industrial agriculture, and providing technical advise to a number of peasant organisations. In this interview Clara argues for more participatory research to demonstrate that agroecology is a form of agriculture capable of producing enough good and accessible food without harming the environment.

Interview: Diana Quiroz

How has agroecology changed since you became involved in the movement?

Perhaps the biggest change has been in the way agroecology has been perceived over time. Agroecology was born in the 1980s in Latin America amongst small scale producers marginalised by the Green Revolution and who had no access to agricultural inputs. These farmers, often supported by NGOs, looked for ways around the marginalisation they were experiencing. A decade later, they started organising themselves and sought for ways to transfer successful initiatives creating farmer to farmer networks. Back in the day, scientists argued that agroecology could not feed the world and that it was only for the 'poor'. It was only in the 1990s that some universities became interested in agroecology. At the same time, NGOs began playing a stronger role as extensionists, and were instrumental in ensuring more research support for peasant agriculture amongst academics.

Agroecology has come a long way; it is not as stigmatised as it was 30 years ago. Many of us agroecological scientists know that this has been a strenuous struggle, but thanks to the continuous and joint effort of peasants, civil society, and academia, agroecology has gained worldwide momentum. Institutions such as the FAO and many universities, which previously questioned it, have now incorporated agroecology into their agendas. Clearly we must be careful as there are efforts to co-opt agroecology and strip it of its sociopolitical dimensions. This is why it is important to recognise the history and identity of agroecology, and particularly the impact of agroecology, and specially to evaluate its technical, social, economic and political achievements.

How can these achievements be evaluated?

To answer this question, I would like to outline the differences between agroecology and organic agriculture, which are often confused. Whereas organic agriculture is only a production model, agroecology as a science, offers the principles and methodological elements needed to evaluate, design, and manage diversified agroecosystems. For example, you can produce organic grapes following a handbook, but only agroecological

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Visiting Yamanuishi farm in Sao Paulo state, Brazil.

Photo: Clara Nicholls

knowledge enables us to redesign and diversify such vineyards, in order to maintain their soil fertility, pest regulation and productivity without external inputs. For instance, by applying agroecological knowledge you can tell why a field planted with GMOs is unsustainable: there is no diversity, no nutrient cycling and, it isn't socially fair. With agroecological knowledge you can even analyse the detrimental ecological and political impact of GMOs.

You cannot measure the impact of agroecology without looking at the social, political, and cultural dimensions, alongside the technical aspects. Anyone can have a productive agroecological farm, but following agroecological principles alone, without considering social equity and cultural appropriateness, is not enough. Agroecology is like a four-legged table where practice is only one of its legs. The same applies to organic agriculture. It may be healthy and friendly to the environment because of the absence of chemical inputs; it may be economically viable because it is profitable for farmers; and yet it may not be socially just or culturally acceptable because not everyone can afford to pay for certified organic foods or because peasant knowledge hasn't been taken into account. Thus the organic system may have three legs but it still falls down and is therefore not sustainable.

To measure the impact of agroecology you first need to determine the objective of your evaluation together with farmers and choose indicators according to this objective. For example, if you want to prove that agroecological farming has achieved more equity for peasants, then you need to think of the different attributes of agroecology's social dimension. Thinking of attributes helps in choosing the right indicators. In the case of equity, you can look at indicators such as the level of empowerment, organisation, self-determination, participation (especially of youth and women), self-consumption of their products, access to markets, etc. Once indicators have been chosen with stakeholders, you can determine how to measure those indicators. There are several ways of doing this and choosing a methodology depends on who you work with and the level of evaluation: families, communities, entire territories or anything in between. Our team, for



Teaching students how to use the A frame to mark contours on a hill side in Chiloe, Chile.
Photo: Clara Nicholls

example, has used a traffic light system assigning colours to the degree of vulnerability when evaluating resilience to climate change together with indigenous communities in Colombia and Mexico (see the short review to the didactic toolkit on page 41).

Why is it important to measure the impact of agroecology?

It is important to measure the impact of agroecology in order to demonstrate to the sceptics that agroecology is a form of agriculture capable of producing enough good and accessible food without harming the environment or contributing to greenhouse gas emissions. It is also important that society as a whole be informed about the impacts of agroecology and of the need to advocate for public policies that support small scale producers' and consumers' rights. For us scientists, it is important to know if the initiatives we promote are really reaching the levels of sustainability we strive for and if the principles on which the science of agroecology is based are being applied in practice. Impact studies are crucial for the amplification of agroecology.

What is the biggest challenge for developing indicators of impact?

We must increase our understanding of the importance of using participatory methods to develop indicators. Often, the things that are interesting to us scientists have absolutely no relevance for farmers. For example, as an entomologist I am interested to know whether a farm has insect pests and associated natural enemies, but it might be the case that this farm has never had problems with insect pests and the farmers' priorities are elsewhere. Moreover, it

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is also important that indicators be accurate, sensitive, and easy to interpret. Sometimes indicators are reduced to numeric values that farmers don't understand and this has been one Achilles' heel of measuring the impact of agroecology.

Is measuring impact with indicators enough?

Unfortunately, much of the work we do in academia remains locked up in students' theses and scientific articles that no one else reads. Often the distance between the potential and actual political impact of researchers' work is huge. This is because the system rewards publications whether relevant or not. In addition to doing research, we scientists should also be activists and ensure that our work is a catalyst for change. And to generate change researchers must be close to people and farmers' organisations, because policy changes are seldom a result of the work of scientists or policy makers; they happen because social movements and civil society push for change.

We scientists cannot work alone, we need co-researchers and these co-researchers must be peasants and farmers. Neglecting this is a recipe for failure. Moreover research must foster and provoke political action. Mainstream science doesn't like this, but science isn't neutral either, especially as it is often in the service of certain political and economic interests. The only weapon we have is to show that agroecology works, we cannot leave everything to utopian dreams and discourse. Sometimes we have a good discourse, but it is worth little if we don't translate it into practice. Agroecology is a public good but in order to have an impact the research has to be relevant and emerge from a participatory process where the true needs and aspirations of peasants are well represented.

Clara Nicholls with students taking an agroecology short course organised by TWN-SOCLA in Zambia
Photo: Clara Nicholls

