Public policies to support agroecology in Latin America and the Caribbean

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In Latin America and the Caribbean, the model of conventional agriculture, which is characterised by the intensive use of synthetic inputs, a paid workforce and export promotion, has long been the only one targeted by public policies. This model has been criticised by social movements: conducted within a poorly regulated framework, conventional agriculture has had adverse effects on public health, the environment and social equity.

Against this backdrop, alternative forms of agricultural production began to emerge in the 1980s. These include agroecology (agroecología), organic agriculture (agricultura orgánica) and sustainable agriculture (agricultura sostenible) [see table p. 2]. Until the 1990s, agroecology was only supported by social movements: conducted within a poorly regulated framework, conventional agriculture has had adverse effects on public health, the environment and social equity.

Agroecology therefore depends on the power relations established within each country. This Perspective analyses these policies and their influence on the development of agroecology in eight countries: Argentina, Brazil, Chile, Costa Rica, Cuba, El Salvador, Mexico, and Nicaragua. These policies remain fragile, while support for large-scale conventional agriculture is still predominant. Their challenge is therefore to convince more broadly farmers, consumers and policymakers about the importance of issues such as public health and food security.

Latin American agroecology proposes a transformation of conventional agri-food systems. It is driven by social movements that have succeeded in forming coalitions that have promoted its integration into public policies. These policies involve a range of instruments that are often embedded in programmes that also support organic agriculture and sustainable agriculture. However, while these two types of agriculture propose more ecological practices, they do not question the basis of the conventional agri-food system. The implementation of instruments to support agroecology therefore depends on the power relations established within each country. This Perspective analyses these policies and their influence on the development of agroecology in eight countries: Argentina, Brazil, Chile, Costa Rica, Cuba, El Salvador, Mexico, and Nicaragua. These policies remain fragile, while support for large-scale conventional agriculture is still predominant. Their challenge is therefore to convince more broadly farmers, consumers and policymakers about the importance of issues such as public health and food security.

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export-oriented family entrepreneurs or companies, which see certification as a commercial opportunity.

**Sustainable agriculture** is a more recent alternative that does not question conventional intensification, but introduces agro-ecological practices generally associated with financial support. Sustainable agriculture uses the same supply and marketing channels as conventional agriculture. It is supported by governments concerned by environmental issues, wishing to protect water resources [Mexico, Chile] or to promote a green economy based on ecotourism [Costa Rica]. Sustainable agriculture focuses on environmental sustainability, whereas Latin American agroecology also more broadly considers the social pillar.

**Circumstances that drive policies towards the promotion of agroecology**

In contexts that vary according to the country, governments have progressively established policies to support agroecology. In all of the cases we have studied, three elements underpin these policies, either independently or simultaneously:

> pressure exerted by social movements (including consumers). These movements mobilise and join forces, sometimes at the regional level, leading to the formulation of policies. This is the case of the coalitions that enabled the development of policies simultaneously promoting agroecology and organic agriculture [Brazil, Nicaragua];
> the search for solutions to economic and environmental crises caused by the specialised agro-industrial model (cotton production in Nicaragua), geopolitical and financial crises (the collapse of chemical input import capacity in Cuba and Nicaragua, the financial crisis in Argentina), or climate events (Hurricane Mitch in Nicaragua);
> partial responses by the public authorities to regional and international challenges: the sustainable rural development act in Mexico [2001]; the recognition of environmental benefits (payment for environmental services) applied to agriculture in Costa Rica [2007]; the sustainable agriculture plan in Chile [2015].

Despite this progress, agro-ecological production is still scattered and limited. It is marginal, except in Cuba, where it accounts for 65% of agri-food products. However, it is increasingly acknowledged as a potential way to address the crises affecting conventional agricultural systems.

In order to develop agroecology, public policies are essential at two levels. First, the complexity of productive systems and the diversity of local conditions call for specific technical references to be created locally and disseminated. These references must be underpinned by training and knowledge management systems. Second, in order to offset lower yields and extra production costs, especially for labour, policies must support food processing and marketing. Some products could also be certified according to standards or through direct negotiation between producers and consumers (participatory certification).

So far, dissemination and training efforts have been made by social movements, producers’ organisations, technical colleges, universities, non-governmental organisations and, sometimes, public agricultural extension services. However, links with consumers need to be strengthened in order to develop broader coalitions to ensure healthy, environmentally friendly food.

### Latin America and the Caribbean: the three alternative agricultural models — agroecology, organic agriculture, sustainable agriculture — and the conventional production model.

<table>
<thead>
<tr>
<th>Distinctive criteria</th>
<th>Latin American agroecology</th>
<th>Organic agriculture</th>
<th>Sustainable agriculture</th>
<th>Conventional agriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of farm</td>
<td>Family farms (known as peasant, indigenous)</td>
<td>All types</td>
<td>All types</td>
<td>All types</td>
</tr>
<tr>
<td>Trade integration</td>
<td>Limited</td>
<td>Variable</td>
<td>Maximal</td>
<td>Maximal</td>
</tr>
<tr>
<td>Food system targeted</td>
<td>Short supply chains</td>
<td>Long supply chains and export</td>
<td>Long supply chains and export</td>
<td>Long supply chains and export</td>
</tr>
<tr>
<td>Labelling of agri-food products</td>
<td>Possible, more or less formalised</td>
<td>Yes, mainly third-party certification</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Scale of change in agricultural practices</td>
<td>Plot, farm, territory</td>
<td>Plot, farm</td>
<td>Plot</td>
<td>Plot</td>
</tr>
<tr>
<td>Input (fertilisers, crop protection products, etc.)</td>
<td>Few inputs, derived from biological processes</td>
<td>Derived from certified biological processes</td>
<td>Rational use of synthetic inputs</td>
<td>Massive use of synthetic inputs</td>
</tr>
<tr>
<td>Cultivation of genetically modified varieties</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Diversification of production on farm</td>
<td>Yes</td>
<td>Variable</td>
<td>Not a goal</td>
<td>Not a goal</td>
</tr>
</tbody>
</table>

Policy instruments to support agroecology

A wide range of policy instruments are used to promote agroecology in Latin America, yet they are often fragmented between different public sectors. Four types of instruments can be identified, which are related to innovation and knowledge, access to resources, access to markets, and regulation.

Innovation and knowledge management instruments have three objectives: fostering horizontal knowledge sharing and experimentation [Campesino a Campesino programme in Nicaragua, Cuba], developing certain technical traditions [Mexico, Chile], and promoting territorial agro-ecological knowledge networks [Ecofoste programme in Brazil].

Instruments to ensure access to resources are, following the example of Cuba and Brazil, actions on agrarian reform and land tenure, access to water, access to credit and agricultural extension for family farmers. These actions form solid foundations enabling negotiations on more specific programmes to promote agroecology.

Instruments to ensure access to markets and food security include a broad range of actions. The eight countries studied have organic certification standards, largely to meet the demands of importing countries. Participatory certification systems exist in Costa Rica, Chile and Brazil (where certification through social control, monitored by producer organisations, also exists). They are also emerging in Cuba. Support instruments for short supply chains are based on the social construction of local markets: fairs, farm boxes, consumer cooperatives, and community farming groups in cities. Other types of short supply chains have been disseminated across Latin America:

Timeline of actions to support alternative agricultural models in Latin America and the Caribbean.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>1972 creation of IFOAM (International Federation of Organic Agriculture Movements)</td>
</tr>
<tr>
<td>1980</td>
<td>1992 Argentina, organic production standards</td>
</tr>
<tr>
<td>1990</td>
<td>1999 Brazil, regulation standards (Ministerio de Agricultura, Pesca y Abastecimientos)</td>
</tr>
<tr>
<td>2000</td>
<td>2003 Nicaragua, organic production standards</td>
</tr>
<tr>
<td>2010</td>
<td>2010 Cuba, Cuban standard on organic production</td>
</tr>
<tr>
<td>1970s</td>
<td>1970s, first classes on agroecology at the Colegio Superior de Agricultura Tropical (Tabasco, Mexico), by S. Gliessman and his colleagues at the Universidad Nacional de Colombia (Palmitas), by J. Zuluaga and M. Altieri</td>
</tr>
<tr>
<td>1980s to 1990s</td>
<td>1980s to 1990s, actions among Latin American NGOs by CLADES in 1989 (Consejo Latinoamericano sobre Agricultura y Desarrollo) and MAELA in 1992 (Movimiento Agroecológico de América Latina y el Caribe)</td>
</tr>
<tr>
<td>2000</td>
<td>2007, consolidation of the academic field of agroecology creation of SOCLA (Sociedad Científica Latinoamericana de Agroecología)</td>
</tr>
<tr>
<td>2010</td>
<td>2011 Nicaragua, law for agroecology</td>
</tr>
<tr>
<td>2012</td>
<td>2012 Brazil, national policy on agroecology and organic production</td>
</tr>
<tr>
<td>2017</td>
<td>2017 El Salvador, proposal on the policy for developing agroecology</td>
</tr>
</tbody>
</table>

Environmental regulation and subsidy instruments do not concern only agroecology, but they promote more ecological agricultural practices. They include the regulation of agricultural biodiversity, genetically modified varieties and land use. Programmes to reduce pesticide use exist in Cuba and Costa Rica. Several countries have established subsidies for agricultural practices that protect the environment: this is the case of the recognition of environmental benefits in Costa Rica, the protection of water and biodiversity in Mexico, and energy efficiency in Chile.

Active but complex policy implementation

The historical analysis of Latin American policies shows the important role played by crises in the emergence of agroecology — economic, geopolitical, environmental and climate crises. The capacity of agroecology to address these crises has been demonstrated, and has made it a real alternative in terms of ecological sustainability and resilience.

However, these policies must overcome major obstacles. They face unfair competition with policies supporting agribusiness. One key challenge is to demonstrate that agroecological production can provide low-cost food for the poorest, an argument also used by agribusiness agriculture. Moreover, it is essential to stress the contributions of agroecology to public health and social equity, rather than just its technical dimensions. Efforts are still needed to better coordinate proposals by social movements supporting agroecology. Indeed, these proposals are undermined by the dominant model, which claims to be the only one able to feed the planet.

The implementation and monitoring of policies to support agroecology are largely dependent on coordination that is currently difficult to establish between different actors and levels: between social movements supporting alternative models and agricultural institutions or public organisations, between ministries and departments, between standards institutions, and finally, between national and territorial governments.

The development of Latin American agroecology will depend on actions designed and planned at the territorial...
A few words about...

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Some links


Brazil and Cuba, production and knowledge sharing networks and short supply chains are central to this development. To convince producers and decision makers, policy instruments to support agroecology need to be flexible and designed at several levels. The territorial level approach is essential to enable producers, consumers and their organisations to adapt these instruments to their specific context.