



# Agroecological Transition in Mexico: ANEC's Journey to a Better Farm and Food System

## Introduction

By minimizing the use of external inputs and decreasing dependency on global commodity markets, agroecological approaches enable small farmers to survive some of the challenges posed by climate change, volatile prices and unfavourable government policies. Examining how agroecology fosters resilience and resistance to damaging industrial agricultural practices and policies can lend insight into how to promote and scale out agroecological approaches, by overcoming the various political and economic obstacles



Figure 1. Javier Hernandez, Olga Alcaez and Miquel Tapia at Agricultores Unidos, Guayangareo, Michoacan State Mexico

to a truly equitable and sustainable food system. Countless countries have policies and programs that support an extractive agro-industrial system, creating institutional barriers to a transition. Many farmers must compete in a global commodity market that rewards mechanization and foments dependency on often subsidized harmful chemical inputs. In such a context, what policies and programs might foster a transition to agroecology? What are the best practices for supporting farmers in this transition? The experience of farmer organizations and the rural social movements at the forefront of agroecological innovation and the struggle for food sovereignty can shed the light on these questions. The following case study examines the experience of one such farmer's organization in Mexico.

*La Asociación Nacional de Empresas Comercializadoras de Productores del Campo (ANEC)*, which translates as the National Association of Rural Producers' Commercial Enterprises, was founded in 1995 in the wake of the North American Free Trade Agreement (NAFTA). ANEC's work is, (and has historically been), in response to, and despite, Mexico's regressive agricultural politics that benefit large-scale industrial farmers over small farmers<sup>1</sup>. Rural communities were hard hit by the structural adjustment that preceded and followed NAFTA. ANEC has expanded the breadth of services it offers member farmers, a diverse array of small and medium commercial grain farmers from 17 different Mexican states. Initially, ANEC assisted in the formation or strengthening of local farmer enterprises, helping farmers get politically and economically organized. ANEC's staff have for long advised farmers on their commercial endeavours, accompanied farmers in negotiating better contracts and increasing their share of the value chain. Over the years, ANEC has expanded its program, starting a micro-credit program and developing its own crop-insurance product while also advocating for changes in regional and national agrarian policies. In response to growing economic and ecological concerns with costs of inputs and effects of pesticides, ANEC has developed an agroecological approach to farming adapted to the realities of Mexico's food system and the needs of its member farmers.

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Note: The full article that this case study is based on will be available at [www.iatp.org](http://www.iatp.org) later this year.



### Journey towards Agroecology<sup>ii</sup>-- Agroecologists by Necessity

The 2008 global economic downturn, and devaluation of the Mexican peso, resulted in increasingly expensive inputs, putting seeds and fertilizers out of reach for many farmers. Farmers would need ways to maintain and increase production or decrease costs to remain competitive. Antonio Hernández Alarcón, ANEC's advisor and community leader explained that ANEC's foray into sustainable agriculture, like ANEC's development of a micro-credit program or its development of a crop insurance product, was a response to membership's needs.

ANEC's member organizations in Jalisco and Nayarit were the first to successfully implement programs of vermiculture compost, replacing commercial nitrogen fertilizer with worm castings in a pilot project in 2006-2007. ANEC's staff and allies drew on these experiences. These experiences were shared at ANEC's 2008 general assembly, where representatives from ANEC's local farmer organizations voted to invest more time and resources into developing alternative production practices that would decrease production costs. Over the next few years, through the collaboration of allied scientists and researchers, interdisciplinary staff and innovative member farmers, ANEC developed an agroecological approach to farming called *Agricultura de Conocimientos Integrados (Agriculture of Integrated Knowledge)/Manejo de Cultivos Inducidos (Management of Resilient Crops) (ACCI/MICI)*.

### Description of the Agroecology System

The ACCI/MICI [approach to farming](#) is structured around the idea of creating ecologically efficient production systems that are grounded in farmers' knowledge of their land and their crops. In workshops on ACCI/MICI, farmers learn to use renewable resources, to minimize waste and reduce external inputs to produce their own compost and microorganisms, and to read and manage local agro-ecosystems to curtail pests and reduce (and eventually eliminate) the need for toxic chemicals.

Central to the application of ACCI/MICI is the Farm Plan, which farmers develop with the support of their local and regional technical advisers. ANEC's technical advisers are quite different from traditional extension agents who have agronomy degrees and who are often funded and accountable to state agencies rather than the communities they serve. ANEC's local and regional technical advisers have interdisciplinary backgrounds, are often from local communities and have cultivated trusting relationships with the local farmer organizations. Local organizations pay the salary of their technical advisers, making their advisers accountable to them. Moreover, advisers, leadership and member farmers all attend trainings together.

ANEC's [model](#) of investing in the human resources of an organization by offering members extensive opportunities to exchange information and learn about everything from trade policy to leadership and accounting skills, has been the basis of its success promoting ACCI/MICI. ANEC uses the diverse trainings, talks and workshops it to expose member farmers to the benefits of ACCI/MICI. ANEC provides farmer organizations with information, human and capital resources, and strategies for assisting members in an ACCI/MICI transition for free. It is up to each farmer organization to decide to what degree it participates in the ACCI/MICI transition.

Each participating organization is given tools to build its own *biofabrica (biofactory)* to cultivate microorganisms. Some farmers produce their own compost, but several organizations choose to produce worm compost at scale to supplement members' fertilizer needs. Many organizations have small meteorological stations, too. These tools and techniques help farmers work collectively to produce the alternative inputs that ACCI/MICI requires, lowering their



Figure 2. Pelletized worm compost



labour-costs. Also, selling microorganisms and fertilizer helps farmer organizations generate profits to cover technical advisers' salaries. The sale of ACCI/MICI inputs has helped recruit non-members to use ACCI/MICI approaches.

ANEC engages every farmer organization in a different agroecological transition, depending on farmers' motivations and capacities. Having a dedicated interdisciplinary team that shares a commitment to democratic principles bolsters the integral and adaptive nature of the ACCI/MICI approach, which is central to the success of ANEC's agroecological transition. ANEC's staff and regional and local technical advisers work collaboratively to promote ACCI/MICI by applying four [best practices](#):

- 1. Meet farmers where they are.** While ANEC seeks to replace input-dependent industrial agriculture, its approach adapts to the farmers' needs and capacities.
- 2. Look for entry-points, create space for dialogue and knowledge exchange.** By creating countless opportunities for farmers to learn about and see the results of ACCI/MICI or the benefits of democratic leadership, ANEC fosters local interest in alternative approaches to production or governance.
- 3. Use existing resources.** Identify and invest in existing capacities and knowledge of community leaders, technicians, staff, and members.
- 4. Share information.** Communication and information sharing to help farmers feel supported as they take on new endeavours, like transitioning to different farming system. Transparency and accountability are also essential for building trust too.

## Outcomes of the Practices

The application of ACCI/MICI by ANEC appears to have had remarkable results. In 2016 ANEC had 600 member farmers participating in ACCI/MICI programs and applying ACCI/MICI practices and, in 2017, ANEC has over 1,617 farmers who will be using ACCI/MICI practices on at least one of their parcels, receiving trainings and technical support as they begin their transition. Farmers [report](#) higher yields, a 30-50% drop in production costs, healthier soils, and crops that are more likely to withstand ecological shocks like drought or frost. ANEC's experience is especially helpful in illuminating the connection between democratic principles and agroecological transition and provides useful lessons on some of the challenges involved in that transition.

### Challenges

While exciting, the transition process is still rather incipient and complicated and, in practice, ACCI/MICI can sometimes seem far from an [agroecological ideal](#), both in terms of agri-food system practices and in terms of democratic processes. Many of the farmers participating in ACCI/MICI use a hybrid of agroecological practices and industrial practices, for example, combining worm fertilizer with occasional applications of synthetic nitrogen. Some farmers still apply chemical pesticides. While these practices are not agroecological ideals, ANEC sees this hybridization of practices as part of the transitional process. While ANEC mentions the benefits of diversifying crops as a means of promoting ecological equilibrium and diversifying livelihoods in its ACCI/MICI workshops, it is not currently a priority area.

This divergence from ideal agroecological practices is partially because ANEC is faithful to the agroecological ideal of process: that of working democratically with the farmer members. Also, ANEC must address its members' ability to survive in the Mexican agricultural sector, a sector that is dominated by agroindustrial farmers whose practices are bolstered by state subsidies and regressive policies. ANEC works to change status quo food and agriculture politics in Mexico through its direct advocacy with state and federal agencies and through strategic alliances with, for example, initiatives like the Valuing the Peasant- *Valor al Campesino*- campaign<sup>iii</sup>. Seventy percent of Mexican farms are small farms, cultivating 5 hectares or less of land apiece. On these 5 hectares or less, small farmers



produce almost 40% of Mexico's food. Moreover, smallholder agriculture is the bedrock of rural livelihoods, generating 3 out of 4 jobs in rural communities. These social benefits are realized on 16.9% of the arable land in Mexico, much of which has no irrigation and little subsidies from the budget allocated to agriculture production.<sup>iv</sup>

### Next Steps for the Agroecological Transition in Mexico

ANEC has made remarkable inroads but the agroecological transition process is just beginning. In addition to addressing the challenges above, the next steps could include the following:

1. ANEC needs to begin to identify ways to guarantee that local tools and techniques (including seeds) remain part of the collective commons.
2. ANEC's experience can serve as resource for other farmer organizations and contribute to improving agricultural policies in Mexico. For this, ANEC's experience requires more rigorous assessment and documentation.
3. Promoting inclusive and equitable rural development that fosters intergeneration turnover and the active participation of women and youth is a challenge facing many rural communities. ANEC will need to develop and systematize strategies for ensuring that youth and women play a greater role in organizational structure and agroecological innovation.

While the ACCI/MICI transition is still incipient, and many challenges remain, ANEC has found a process of introducing farmers to a productive and sustainable approach to farming that addresses their most pressing needs. As ANEC's interventions are locally driven, each of ANEC's local organizations is transitioning towards agroecological farming at their own pace. IATP's longer report on ANEC examines the [transition process of three different locales](#), and from those it becomes clear that the strength of the local organization—the ability of farmers to work collectively and the capacity of leadership and technical advisers to practice democratic governance—often correlates with the efficacy and depth of the ACCI/MICI transition. Having strong local organizations contributes to technical innovations and the improvement of the ACCI/MICI approach. Weaker organizations are still capable of engaging in agroecological transition, however their transition is slower.

## Message from Farmer to Farmers

*"We have groups on WhatsApp where our fellow farmers and technical staff exchange information, which have helped us confront climate change and the challenges of applying a new type of farming. Being part of ANEC, and working with our technical agents and exchanging information with our fellow farmers, helps us feel less alone, less vulnerable-."*

— Message from Julio Cesar, farmer from Chiapas, Mexico

*"As a farmer and technical staff, I use my land and the organization's demonstration plots as opportunities to show results. The more farmers see results, the faster the change process will occur."*

— Message from Vicente, Local ACCI/MICI Technical Adviser and farmer Jalisco, Mexico

Read at <https://www.iatp.org/appendices-agroecological-transition-mexico> more about **ANEC's organizational model that is the foundation for the ACCI/MICI approach to farming (to help farmers transition to an agroecological ideal), that is based on four best practices; farmers report on higher yields and a 30-50% drop in production costs as well as healthier soils, as elaborated in the mini case studies on agroecological transition process of three different locales.**

<sup>i</sup> Fox, Jonathan, and Libby Haight. 2010. *Subsidizing Inequality: Mexican Corn Policy since NAFTA*. Woodrow Wilson International Center for Scholars, Centro de Investigación y Docencia Económicas, University of California, Santa Cruz.

<sup>ii</sup> This report on Agroecological Transition in Mexico is based on Zoe VanGelders' collaborations with ANEC over the last five years.

<sup>iii</sup> Valuing Peasant Farmers is a campaign and initiative that agglutinates prominent civil society organizations, researchers and Mexican farmer movements. The details of advocacy and research efforts spearheaded by the campaign, including statistics, are available on their website <http://valoralcampesino.org>

<sup>iv</sup> *Valor al Campesino*- campaign: <https://valoralcampesino.org/banco-de-informacion/>