Social Innovation and Family Farming: An Ongoing Experience

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Presentation

Mexico has almost 5.5 million rural production units classified as small-scale family-based agriculture. These production units are recognized as places where you can find abandoned plots, old plantations and producers, monocultures, eroded soils, very low productivity, excessive and misused chemical fertilizers, loss of biodiversity, dependence on external products for food, lack of opportunities and alternatives for development, migration, and cultural erosion, populations exposed to illicit activities, public health problems due to the consumption of junk foods, lack of technologies appropriate to the conditions of the small producer, and poor transference of available technology. This situation translates into an environment where poverty seems inevitable.

Nevertheless, nowadays, it is recognized that family farming can play an important role for the generation of food by optimizing family work in rural areas, boosting local and territorial economies, and contributing to better

management of the environment and biodiversity.

An example of this can be found in the experience developed in the state of Chiapas by groups of producers from different localities of 14 municipalities, accompanied by a civil society organization with the support of a few government institutions that have united efforts for its implementation. In five years of work, the efforts have begun to show results.

How the Experience Arises[3]

This model originated in the practice of operators of government programs that financed productive enterprises, mainly rural ones. While trying to improve their practices, they discovered that influencing production improvements and the income of the producers they assisted, required cooperation with other institutional actors and with civil society.

New or better productive practices, diversification attempts, technical assistance, training, or adding value to the production were recurrently tried. But the breaking point that led to this experience came from another reality that many small producers live: the organizational problems of those who carry out collective productive undertakings. One of these attempts was the creation of a diploma or training program for the leaders of the productive organizations, which were supported by a state government entity, Banchiapas, whose main

function was to offer to finance for productive activities in that state.

The diploma was designed by the Instituto de Estudios para el Desarrollo Rural Maya, A.C. (Circo Maya)[4] with the academic backing of Universidad Autónoma Metropolitana Unidad Xochimilco. It aimed to improve managers' capacities in the various aspects of agricultural production, merchandising, financing, and the environment, among others. The program included ample space for discussion and reflection, in which the concern for what they called "lack of loyalty" of their members appeared repeatedly. In other words, the term referred to the harvest season where some partners gave their production or part of it to intermediaries who offered them prices slightly above those set by their organization, damaging the credibility of their own organization as a reliable provider to commercial agents.

The training program included a contrasting exercise with a cooperative organization from the central region of the country.[5] That organization is known for offering its members a set of supports and services that not only addressed their merchandising requirements but also the diversified production that, distributed throughout the year, offered greater certainty to the producers' annual income. In addition to having its own financial instrument, members had access to a housing and health cooperative, which translated into important incentives to gain members' loyalty to the organization. This established a

clear difference from those whose only link was established in the production and merchandising of a single product. It was expected that, in realizing the difference, many more would adhere to the organization's rules.

Also, as part of the diploma, each participating organization had to carry out an exercise of learning about the family life of its members by systematizing the origins of their income and their destination throughout the year. This ethnographic exercise developed and accompanied by the Circo Maya allowed, by focusing on the family, the identification of some of the reasons that explain why the partners of the organization were "disloyal." The main reason was the unequal relationship of exchange they had with other agents of the productive chain -- the intermediaries.

This data contributed to the understanding of the behavior and facilitated the design of possible solutions to the problem by correcting that unequal relationship. Having Circo Maya supporting the process of implementing the alternative, it was then possible to adopt a different perspective with new ideas to take advantage of the availability of conditions and resources to try them out.

Another element of great importance for this process was the participation of Promotores del Autodesarrollo Sustentable de Chiapas (PROASUS), a civil society

organization originally established as an office that designed projects for groups interested in accessing government resources, and whose members had an extensive knowledge of the reality of Chiapas. Several of them spoke the native languages, which was an asset of great relevance.

PROASUS' participation in the diploma allowed the organization to assimilate the project from its definition, which then facilitated the transition of their role as the central actors for its implementation.

Also, as part of the training program, professionals linked to the Comisión Nacional para el Conocimiento y uso de la Biodiversidad (CONABIO), exposed issues related to environmental topics that added depth to the project's dimension.

The path followed throughout the process, with the building of partnerships, resembled, unintentionally, the path towards a systemic vision of the project in its design, thus forming itself into interested stakeholders.

Milpa[6] Intercalada con Árboles Frutales (MIAF) as an Alternative

The organization that most vehemently raised the problem of "disloyalty" from its partners was the one that led to the experimentation of the adoption of a new production system.

The fact that the members of this organization were organic coffee producers meant that they had experience in carrying out certain productive practices such as the management of coffee under shade, which requires knowledge of the ecosystem associated with the coffee plantation, the use of organic fertilization, as well as experience in the certification of these practices, which they knew added value to their production by allowing them to place it in the fair market.

On the other hand, the landscape in which the coffee activity generally takes place, characterized by sloping land and its cultivation, allowed them good soil management and to avoid erosion, unlike the cultivation of corn.

Having learned about the members' family spending, as well as their agronomic practices, it was possible to have a much broader perspective of the organization's problems. Using gathered qualitative and quantitative data, it was possible to better conceptualize and develop an organization that acknowledged the experience that was being developed in the State of Oaxaca called Milpa Intercalada con Árboles Frutales (MIAF).

According to a document from the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), "The MIAF system is an agroforestry intercropping system, consisting of three species, the fruit tree (epiculture), corn (mesoculture), and beans or other

edible species, preferably legumes (sotocultivo) in intense agronomic interaction and whose purposes, the production of corn and beans as strategic elements for the food security of rural families, significantly increase a family's net income, increase the content of organic matter, control water erosion of the soil, and thereby achieve a more efficient use of rainwater. In the short, medium, and long term."[7]

The establishment of this productive system had been attempted in several parts of the country with little success, very possibly because it had been done following the procedures with which government actions are usually implemented, which are designed thinking more in terms of the very dynamics of public administration than in the producers. The experience demonstrated that in its implementation tied to its success.

By learning about other possible interested stakeholders, without intending to, a systemic vision was being formed that sought allies for financial support and technical assistance.

Although a productive alternative that seemed to respond to the characteristics of the organization for its implementation had already been identified, there was no adequate support within the existing government programs for rural producers. These programs were conceived as a way to support productive specialization,

while the MIAF was conceived as a diversified productive system. In other words, MIAF cannot be supported from the logic of an isolated crop but based on what is known as a technological package that defines sowing dates, varieties and hybrids, fertilization, pest and disease control, and yields of a specific agricultural product as a condition for its support, among other conditions.

Therefore, with the most relevant stakeholders, an exercise was made in articulating the partial interests of the identified agents, ensuring that, in that conjunction of efforts, each of them could resolve their particular objectives derived from the organization by silos of the public administration.

One of these agents is the Postgraduate College (COLPOS), the institution where the MIAF model was designed, for whom it was very attractive that its design could be tested again with the technical support of the highest quality. This iteration resulted in the incorporation of a greater product diversification and becoming a model prototype. It is clear that one of this institutions' main objectives is to continue contributing to its development.

Another important actor has been CONABIO, which has facilitated the addition of a greater commitment to environmental aspects and biodiversity in the proposal. Some of the projects developed by this institution feed the experience both conceptually and technically and, if as expected, the practice of this climate-smart agriculture

continues, there is no doubt that CONABIO will continue to be linked to experience.

Other stakeholders, that paradoxically have been sporadic, are governmental entities that have contributed financial resources in different stages of the project: initially, Banchiapas -- which has disappeared from the administrative landscape of the State of Chiapas -- financed the start of the project. Then, the National Institute of the Social Economy (INAES), which having signed an agreement with CONABIO allocated resources for the stage of further development but has also suspended its support, and some marginal contributions from SAGARPA and the National Program of Financing to Microentrepreneurs (PRONAFIM), which at some point supported the projects granted by INAES. This scattered financial support is a sign that it has not been possible to position these institutions in the interest of exploratory exercises as this model assumes. It should be noted that both COLPOS and CONABIO do not provide financial resources.

From this institutional arrangement, the original model explicitly incorporated a greater commitment to environmental sustainability and biodiversity and, thereafter, the model was called MIAF - Diversificado (MIAF-D).

It is important to highlight that this difficulty of achieving an institutional articulation when dealing with complex

problems is reflected in the inability of the federal public administration to find sustainable productive alternatives to break with the intergenerational transmission of poverty. Their attempts to contribute to development programs have unsuccessfully translated into a true social policy, or at best, they have been made without conviction with the consequent bad results.

Hence, along absolutely unorthodox paths -- as seems to be the way of social innovation, a set of conditions have emerged that laid the foundation for the implementation of this alternative production system.

MIAF-D Results

The experience begins in 2011 and, by 2015, 405 hectares (more than 1,000 acres) have been established with this system in 14 municipalities of Chiapas, of which 73 percent are within the areas of the Mesoamerican Biological Corridor, Mexico[8].

In spite of having limited information, one municipality shows that the investment is amortized in three years only with the sale of one hectare (2.71 acres) of avocado[9]. Additionally, other income is generated from crops that have not yet been quantified.

The system has allowed producers to obtain income at different times of the year, as contemplated by the original design. For example, a group from the town of Ojo de

Agua, Municipality of Las Margaritas, went from generating only income from the sale of corn, to a diversified offer with beans, plantains, bananas, sugar cane, tomatoes, chili, papaya, banana, chives, among other products.

In the particular case of corn production, the same Ojo de Agua community has increased its productivity by 66.7 percent. This is due to innovations such as sowing density, which means that now 30 percent of corn production is for self-consumption and 70 percent for the market, while for beans 35 percent is for self-consumption and 65 percent for the local market.

MIAF-D requires 50 percent more labor. This implies the participation of the whole family and, at certain times of the year, the hiring of additional labor, which helps to avoid migration and family disintegration. Another important aspect of the model and fundamental for the peasant economy is that it generates a greater diversity of foods that improves the quality of life of the families and contributes to the incorporation of native species in the plots.

In terms of environmental sustainability, according to some preliminary estimates, the MIAF-D has had positive results regarding the mitigation of the effects of global warming due to its ability to capture and sequester carbon in the same magnitude as that of a forest, and contribute to good soil management, essential for the production of

food in hillside territories. This is because the MIAF-D has the capacity to retain soil within the allowable rate of soil loss with respect to the traditional milpa system.

These attributes are present in what the current literature identifies as climate-smart agriculture, which according to the FAO "... aims to tackle three main objectives: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible."[10]

The limitations of the Mexican conditional transfers' model have recently become evident in Mexico. For this reason, the development of skills of this sector of the population to develop sustainable productive enterprises has recalled attention. It is precisely at this point where this initiative finds a space and can compete with some new initiatives that, with the support of national and international organizations, have started[11] although, at the moment they do not seem to be viable alternatives.

The foregoing makes evident the need to better accredit a different intervention model. For this, it seems essential to highlight the promotion and construction work that PROASUS, the catalyst of the project, has developed. PROASUS work can be summarized in the following topics:

1. Relational capital: To approach communities through

development agents or community leaders and identify producers interested in sustained and sustainable self-development.[12]

2. Promotion: Made through a systematic exercise of informal visits with a focus on bonding.
3. Identification of resources: To learn the base of available assets.
4. Prioritization: Identifying and prioritizing with the producers the ideas of projects based on obtaining a remunerated income and involving all members of the family ("work from the kitchen").
5. Exchange of experiences: To learn from other successful experiences, related to the activity of their interest, where:
   a. Knowledge is exchanged in their language and among peers;
   b. The productive cycle(s) is recognized;
   c. The required inputs are identified and appreciated;
   d. The problems of the productive cycle are anticipated;
   e. Merchandising channels are identified; and
   f. Profitability is reviewed.
6. Formalization of labor relations: The producers agree to establish a trust-work commitment with PROASUS.
7. The conception of the Project: PROASUS creates with the producers the project for its management.
8. Management: Relations with key actors of public institutions are built based on invitations to travel to

Chiapas to become aware of the results obtained with the producers by talking to them.

9. Project implementation: It is a joint process between the agency and the working group to guarantee:
   a. A proper application of resources.
   b. Quality inputs at the lowest possible price.
   c. That the implementation of the project progresses in accordance with the skills of the group.
10. Training: Building skills through qualified professionals, under the principle of learning by doing and through the exchange of experiences with other groups.
11. Follow-up and monitor: A close follow-up and monitor work to:
    a. Give continuity to the project process.
    b. Review with the working group the possibility of new plans for the production unit.
12. Merchandising: Identifying markets for the production and development of merchandising mechanisms and providing support so that product information flows between the producer and the buyer.[13]

These are aspects that will have to be worked on in order to shape an intervention model with possibilities of generalization.

Emphasis should be placed on the strength that technical support gives to the experience to compensate for the weakness of the producers' initiative before bureaucratic

instances, on the one hand, and on the other, the instrumental weakness of governmental work. The latter is the Achilles heel of government programs that support productive initiatives and lack adequate support for the provision of skills through sustained technical support.

Why is this a Social Innovation?

An exercise in the systematization of experiences sponsored by the IDB, the Inter-American Institute for Cooperation on Agriculture (IICA), and FONTAGRO, with the support of the Global Environment Facility, has recognized experiences in Latin America that allow the successful facing of climate change and improvement to the living conditions of rural families. The study highlights as central elements of successful experiences: participation, capacity building and leadership, technologies and knowledge, the provision of technical assistance, the role of women, value chains and market, and perseverance. Aspects that are undoubtedly present in the MIAF-D experience.

In the perspective of design thinking, we could say with Adrian Smith in the Steps Center blog , that the MIAF - D is in a prototype stage, where "... sustainable alternatives create spaces where the rules, norms, and routine are ignored (institutions) and different approaches are tested" and that "Although typically small-scale, sometimes ephemeral and generally isolated, these activities could lead to new norms and routines for development, or even

new institutions." (Smith, A. 2018)

Moreover, in the process that we have outlined, it is possible to find other features as exposed in the Atlas of Social Innovation that defines social innovation as "... a new combination of social practices in certain areas of action or social contexts ... What distinguishes social innovations of other manifestations of social change are that they are driven by certain actors in a deliberate and directed manner with the objective of satisfying or better satisfying the needs and problems of what is possible on the basis of established practices" (Howaldt, et al., 2018).

We can affirm that the construction of this project was derived from the awareness that there is a gap between what is and what should be, between what people need and what governments, private companies, and NGOs offer them, a gap that widens constantly with the appearance of new technologies and new scientific knowledge (Mulgan, et al., 2007).

This model has been carried out by taking into account the three key dimensions of social innovations: 1) They are generally new combinations or hybrids of existing elements, instead of being completely new as this experience proves; 2) Its implementation has involved transcending organizational, sectorial, or disciplinary limits, because if we had complied with the regulations in force we would not have been able to achieve the results indicated; and, 3) New and important social relationships

between individuals and previously separated groups have had to be promoted, which has contributed to the value and novelty of the initiative (Mulgan, et al., 2007).

Funding provided by the Kellogg Foundation to develop a new stage of the experience for one year has led to an orderly systematization of its results, which is estimated to allow the model to be presented to the new federal government that starts at the end of 2018. In other words, this experience can provide elements that can eventually become public policy instruments and actions, but also in new forms of cooperation and organization that cannot find the right answers using conventional tools. It is intended that, as I read somewhere recently and I have not been able to retrieve the quote, we can "... move from a faith-based approach to an evidence-based approach"[16].

References

[1] Director General of Consultores Especializados y Soluciones Integrales (CESOI, S.C.)

[2] I thank Andrea Paredes for the translation of this article

[3] The article by Thomas Both recently published in Stanford Social Innovation Review (https://ssir.org/articles/entry/human_centered_systems_minded_design), has been crucial in writing this text as it allowed the conception of this experience through the lenses of design thinking and systems approach.

[4] A civil society organization with extensive experience in the systematization and analysis of small rural producers' behavior.

[5] The Unión de Cooperativas Tosepan is an organization of more than thirty thousand small indigenous producers of the Northeast Sierra of Puebla.

[6] "...to do milpa is to take advantage of natural diversity through an articulated plurality of productive strategies, self-consumption, and commercial ones, which include both native and improved seeds, which use both monoculture and polycultures and employ state-of-the-art technologies, but also ancestral knowledge"

[7] www.sagarpa.gob.mx/desarrolloRural/Documents/ (consulted on 12/14/2016)

[8] Corridors are areas, usually elongated, that connect two or more regions. They can be narrow strips of vegetation, riparian forests, and tunnels under roads, plantations, remnant vegetation or large areas of natural forests. The indispensable requirement is that they maintain connectivity between the extremes to avoid isolation of populations.

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[10] http://www.fao.org/climate-smart-agriculture/en/

[11] The most developed case is called Productive Territories. This program covers the population of Prospera, and is supported and technically accompanied by RIMISP.

[12] A central element is the fact that PROASUS has in its team speakers of the languages used in the region.

[13] It is important to highlight that, given the reduced capacity of government institutions to do advocacy work, a large number of "managers" of government support have been fostered, who prosper with the needs of poor producers and which clearly contrasts with the practice this civil society organization follows.

[14] The ESRC Center STEPS (Social, technological and environmental pathways for sustainability), is hosted in the United Kingdom by the Institute for Development Studies and the Scientific Policy Research Unit (SPRU) at the University of Sussex. https://steps-centre.org/about/

[15] Howaldt, J., Kaletka, C., Schröder, A. & Zirngiebl, M. (2018). Atlas of Social Innovation – New Practices for a Better Future. Sozialforschungsstelle, TU Dortmund University: Dortmund.

[16] Other actors have joined this effort: two academic institutions, the Autonomous University of Chiapas and the Universidad Iberoamericana.

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