

here have been clear changes in Guatemala and, according to those involved, outcomes exceeded expectations. These have resulted from the strengthening of functional capacities across individual, partnership, organisational and national levels, using processes that have evolved since the CDAIS project began in 2015. Of the four selected innovation niche partnerships in the country, the conversations here explore the experiences of avocado producers in Sololá, led by AIDA, the Association for the Integral Development of the Altiplano. And much has changed since CDAIS supported their progression from being a small group of growers from San Andrés Semetabaj alone, to become a consolidated and registered association representing groups encompassing seven municipalities. Supported by the Ministry of Agriculture and Livestock, CDAIS approaches showed the relevance of partnering with actors from different sectors, farmer-to-farmer communication, organisation and evaluation. And from this, links were also made from the grass roots to the national system level.

New collaboration at farm level

"Through CDAIS, we learnt to collaborate with each other", said Manolo Jerez, one of AIDA's managers, as he reflected on what had been achieved during a workshop in Panajachel, Sololá, in January 2019. "One of the most significant changes you can see today is our interest in tree crops and how to better manage them. Before, we worked only with the knowledge that our parents and grandparents taught us, but now we are exploring new knowledge on improved farming practices." In the past, farmers in this region grew maize and beans and little else, for subsistence and for sale, though prices were always low and so incomes were poor. Then in 2005, farmers were introduced to a new variety of avocado, Hass, that had good market potential, and little by little, they saw the advantages of this new cash crop.

Niche members from Santa María Visitación, Sololá participate in a training course on avocado management facilitated through CDAIS by the independent consultant Byron Gatica.



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"But without CDAIS we would not be where we are now", said Yarucy López, associate National Innovation Facilitator and extensionist with the Ministry of Agriculture and Livestock (MAGA). Jerez also emphasised that what has been learnt has also been shared and put into practice: "CDAIS helped me understand more about better crop management. My biggest dream was to try to use 100% organic fertilizer, and during the last two years I have spent time learning, applying, adjusting and, importantly, using only resources on my plot, leading to a saving of up to 90% of my previous spending on chemical fertilizer. And though I am not a trained teacher, I now advise others who can't come to our meetings."

of sitting down to lament, to look for solutions ... I changed my mindset, and I am now a much more positive person, with a desire to improve what I'm doing and how I am doing it.

Amparo García avocado producer, and women's representative for 19 communities from San Andrés Semetabaj

"It is impressive that producers are not only looking to increase output, but are also focusing on product quality", said Mandi García, CDAIS National Innovation Facilitator. "Amparo García, for example, used only chemical fertilizer before, but is now converting to organic thanks to CDAIS. And with all the training, this has also made us all understand how navigating complexity involves taking care of the environment as well." Amparo García added that, "for me, CDAIS was the opportunity to improve something I had started doing some years ago, and also to improve my development skills in a world that is dominated by men. With CDAIS I learnt to have confidence and courage to express myself. The project has also taught me to identify goals and challenges, and to look for novel ways to overcome them."

However, such changes in knowledge and practice are secondary to changes in attitude at another level. "The group identified organisational strengthening as their main capacity need back in 2016, and prioritised the need to become legally recognised", said Mandi García. "And it



"The project awoke interests among the members in working better together, collaborating, how to organise themselves, and creating spaces with a collective and not individualistic approach", said Manolo Jerez, a manager at AIDA.



"As a woman, it is important for me to show how we can play a bigger role in the association. Our contribution is important. We have things to say and different ways of working that can bring more benefits for everybody", said Amparo García.

is here that CDAIS helped a lot, joining 20 organisations around Sololá into one voice, then linking them to the ministry and others. But it is was remarkable how quickly the process went as the members' functional capacities were strengthened, through the space made where avocado growers could develop together. This allowed them to satisfy the growing demand for avocado while also opening doors to other markets looking for solid suppliers."

Building partnerships

"Stakeholder mapping helped the partnership understand linkages and forge new alliances", added López. "And with the CDAIS capacity building, we were able to create spaces for interaction during field visits, which also helped to build organisational, marketing and lobbying skills." And from these new capacities and facilitated meetings, new partnerships were built. "Since receiving support for official registration, the biggest changes for us came from the new links we made with MAGA", said Jeréz, "as well as all the new links between smallholders, industry, institutions and local municipalities."

Avocado producer Amparo García had a clear perspective of what partnership building represented: "The biggest benefit was to stop being passive, and to be proactive

by using our own capabilities, and to see opportunities where before we saw only drawbacks.

Manolo Jerez Association for the Integral Development of the Altiplano (AIDA) manager

in relating with others. I now feel the desire to be an entrepreneur, part of an association, integrated with other associations, and involve other people in the work of AIDA." Including a women's cooperative was an important outcome of this desire to draw others in, with the leading voice being Amparo García, opening doors for young women to take a more active role. But it was 'CDAIS spaces' that opened their eyes to inclusion, as she added: "Women are good administrators, and if we all contribute a little, we can make the association grow even more." Mandi García agrees: "The training course on value addition has really aroused the interest of women especially, and they are now becoming more involved."

AIDA President Sergio Coroxón was clear about what has been achieved: "CDAIS has helped us to look for alternative ways and to develop an action plan. We are small producers, but through CDAIS we learnt to seek alliances with others if we are to create viable rural enterprises, and we are beginning to link with partners that used to seem unreachable, such as AGEXPORT and the Universidad del Valle de Guatemala." AIDA is now on the way to exporting, but this empowerment resulted from many training courses in which CDAIS played an important role. However, the role of consolidation and achieving outcomes falls on those who have, during these years, placed emphasis on such issues.



CDAIS contributed to the official registration of the Association for the Integral Development of the Altiplano (AIDA) in August 2018.

Innovation partnerships in Guatemala



Avocado

Facilitators: Mandi García, Yarucy Lopez (assistant)

Avocado production in Guatemala has a long history, and this partnership sought to increase incomes among cooperatives in Sololá, building on results from the EUfunded Regional Program for Innovation and Research in the Value Chain (PRIICA). To achieve the aims, farmers saw that it was necessary to improve selection, conservation and propagation of high-quality planting material, and guidance for optimal management and marketing. But the capacity to organise themselves was the greatest need. With this vision, they put their efforts into establishing a producer organisation (AIDA), then scaling out to become an umbrella group. Association members then asked for and received training on organisational and business skills, leading to a workshop where they developed a strategy and a business plan.



Beans

Facilitator: Fernando Palma

Beans are a traditional food of huge social and economic importance for smallholders in Jutiapa and Chiquimula in the Altiplano. The aim of this partnership was to increase yields of a new drought-tolerant bean variety rich in iron and zinc (ICTA Chortí), by developing business capacities and generating immediate benefits for producers and consumers alike. This was achieved through awareness-raising campaigns and partnerships with Semilla Nueva NGO, health centres and ministry extension agents. Training focused on strengthening functional capacities of producer groups, especially the seed union ATESCATEL in Atescatempa, Jutiapa. A strategic plan was developed, which allowed actors to better understand their respective roles within the partnership, and more effectively direct their efforts towards a common goal.



Cacao

Facilitator: Percy Ac

Growing national and international demand for high-quality cacao is an excellent business opportunity for farmers. This partnership aimed to improve production and processing by strengthening capacities of producer organisations in the Atlantic coast to meet this demand. CDAIS supported them to conserve and multiply native disease-tolerant clones with the characteristics required by the market, and standardise post-harvest protocols. With a well-defined national strategy, CDAIS contributed to the farmers' common vision. Reflection and refinement workshops allowed actors to realise the importance of governance issues within producer organisations. One main activity in 2018 was participation in the 'cacao forum', along with the exchange of experiences with cacao producers and processors in Honduras.



Honey

Facilitator: Cristian Miranda

Beekeeping produces important benefits besides just honey, such as jobs, income, food and medicine, and this partnership strengthened organisational and business skills of cooperatives in Huehuetenango. Though most honey produced in Guatemala is exported, only 30% is exported directly by producer cooperatives, and members of this partnership are amongst the exports. This partnership expanded and reactivated a second-level producer association (CONAPI), allowing members to improve internal governance and strategy, and initiate a dialogue that resulted in a direct policy change overturning a tax imposed by the Ministry of the Environment that had penalised honey producers. Further workshops renewed their statutes, and a first-level association (CIPAC) also elaborated its own strategic plan.

ff CDAIS teaches us to be self-sustaining, creative and competitive.

Sergio Coroxón AIDA President



Another important event facilitated by CDAIS was the agricultural week in the city of Antigua, allowing the exchange of experiences on technical, agronomic, market, traceability and agricultural practices.

Organisational changes

Another part of the CDAIS approach is to work with key innovation support service providers, to improve their services that will in turn increase subsequent impact. The national team helped organisations to identify capacity gaps, develop visions and set priority objectives. These showed that positive outcomes could result that were not only sustainable, but also likely to be scaled out after the project ends. Representatives of two selected organisations, Pablo Girón from CONADEA and David Valdez from the Institute

If it had not been for CDAIS, we would not be where we are now. We came from ignorance, though things developed gradually. But it had to happen like that, because if we had moved quickly, at some point things could have gone wrong.

Manolo Jerez AIDA manager

of Agricultural Science and Technology (ICTA), explained that this process opened their eyes and allowed them to see the importance of developing functional capacities in the ways that the CDAIS approach proposes. Valdez added that "this has also allowed us to update our knowledge as great institutions do and the interest in doing things better has awakened me." A further result is that ICTA has begun to have greater participation - in the last year of the CDAIS project, for example. ICTA staff supported learning activities in Chimaltenango on product transformation for all the innovation niche partnerships, with CDAIS approaches also being adopted for an ICTA post-harvest management project. "We can work very well together, though as an innovation niche partnership, we need to work harder", said Coroxón.

Linking farmers to organisational and national-level changes

A key concept of the CDAIS approach is not only to aim for changes in attitudes, skills, knowledge and practices at different levels, however, but also to provide spaces to link individuals in partnerships to organisations, and to national debates. Julio Catalán, CDAIS Country Project Manager, explained what was achieved in Guatemala: "One of the

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most important achievements of this process has been perhaps to make small producers sit at the same table with authorities from institutions such as MAGA, universities and AGEXPORT itself. Those in a partnership must continue to be empowered, and to have the know-how to choose each of the following steps to take after CDAIS."

A good example of what has been achieved is that AIDA has just participated fully in the development of the first national avocado strategic plan alongside institutions including the National Council for Agricultural Development (CONADEA) and the Regional Consortium for Agricultural Research (CRIA). CONADEA is the national coordinator of strategic value chains, and an extremely important actor for sustaining advances made through CDAIS. The Institute of Agricultural Science and Technology (ICTA) is another organisation expressing interest in being involved, believing that much can be done by avocado producers in the region. CDAIS also provided necessary support to develop links with the service provider Fundasistemas. Through these links with service providers, entrepreneurship and governance capacities were strengthened, which in turn helped in the development of the business model that AIDA is now implementing, including a better understanding of the need to look for new markets, while maintaining high product quality. The Fundasistemas foundation plans to continue working with AIDA after the CDAIS project ends.

Key lessons learnt

There have been clear outcomes of the CDAIS approach at individual, partnership and organisational levels, but for national-level changes, senior CDAIS team members

Personal changes

CDAIS has had impacts on many individuals. Here are some examples.

"CDAIS allowed me to learn about new methodologies, tools and the importance of capacity strengthening in all areas. I use this in my work with communities for the Ministry of Agriculture, where I now emphasise the importance of developing functional capabilities that CDAIS has taught me, as I now see that they are the engine of all processes of change." Mandi García, National Innovation Facilitator, avocado partnership

"The learning was very timely for me, for my capacity to negotiate, analyse, and build interpersonal relationships. I have tried to be an entrepreneur and the project promotes me to be creative, proactive, cautious with decision making and more of a protagonist, but above all to collaborate with others and especially with the other facilitators. This allows us to work as a team and to understand what is best, and I see that my character and handling of conflicts on a day-to-day basis has improved significantly."

Fernando Palma, National Innovation Facilitator, bean partnership

"The dynamics of the work that we created with CDAIS improved my learning. The methodologies helped to serve as a platform where I could develop my skills as a professional, get involved with different actors, influence decision making at a policy level, participate as a leader amongst value chain actors, and understand my multi-disciplinary role. On a personal level, functional capacity strengthening is very relevant to what I do and how I do it."

Percy Ac, National Innovation Facilitator, cacao partnership

"Since being invited to the CDAIS project, my expectations were many. But the project has a different philosophy, methodologies, tools, work sessions, and way of being. As Lead National Facilitator, the curiosity to better understand the partnership increased as it began to articulate better with learning by doing. My most important lesson was that capacities are diverse but do exist in people, so it is necessary to create a space that allows everyone to participate in production systems that allow the development of a diversity of capacities and knowledge that there is." Cristian Miranda, National Innovation Facilitator, honey partnership

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considered that more time would be needed. However, the support that CDAIS has given to the avocado partnerships at the regional level has been fundamental to accelerating processes of development of a value chain that is starting to bring hope to the producers of Sololá. The gender approach has been strengthened throughout the process, and that was not exclusive to the avocado innovation niche partnership. In the other partnerships that shared CDAIS project activities, the presence and importance of the inclusion of women has become a fundamental work axis, considered by all involved as a key element for development.

Country Programme Manager Julio Catalán explained: "The beginning of the project represented a challenge for all of us who little by little got to understand the different methodologies that needed to be understood and applied. But it has been interesting to see how the process of implementation developed over these years, from the complexity in the selection of partnerships at local level, [to] the National Innovation Facilitators, and key actors at national level. Assimilation of the approach was improved with the passage of time, and after reflection and learning of the national team through several workshops, training courses, the marketplace and policy dialogue events. But time is always a factor that plays against projects of this nature, and one of the lessons learnt is the need to control the timing between planning and execution."

Regarding linkages and the 'dual pathway' approach used by CDAIS, working at the level of niche partnerships and national systems, Mandi García offered insight: "AIDA is at a critical moment of consolidation of its processes and the involvement of new actors, as they work to have increased representation at the national level. But CDAIS has opened our eyes to the fact that it is important to understand our work plans, participate in activities when summoned, and come together to reflect on what we do and what we can do to improve."

Agrinatura Focal Person for Guatemala, Nury Furlán, noted that "aligning CDAIS with national policies and value chains prioritised by the Ministry of Agriculture has allowed a strong involvement by service providers such as the National Council for Agricultural Development (CONADEA) and the national Institute of Agricultural Science and Technology (ICTA), responsible for coordinating multi-stakeholder platforms at the national level. Likewise, we have been able to create a team of National Innovation Facilitators who share a vision

and, despite working in different partnerships and regions, share experiences, information and knowledge. Furthermore, working in neighbouring countries that share cultural, linguistic and challenge elements provided an added value, allowing the team to work as a bi-national network of individuals striving to promote agricultural innovation."

Furlán had some further key observations: "CDAIS did nothing more than make available a series of tools that allowed value chain actors make alliances with others that share common objectives. Beyond that, through the provision of innovative monitoring, evaluation and learning tools, CDAIS offers, through a scientific approach, evidence of the contribution of strategic partnerships to achieve tangible results." And she concluded, "CDAIS comes to the country at a time when it is important that different actors working for rural development do so in a coordinated and oriented way towards common objectives. From what I have seen, innovation niche partnerships can serve as champions to demonstrate that the impact of investment in technological innovation in agriculture can be greatly increased if it is accompanied by the development of technical, soft and agribusiness skills."

This story presents results from the work of the CDAIS Guatemala country team, based on interviews with them, CDAIS National Innovation Facilitators and various other partners.

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See also: Avocados - from annual to tree crops (Escobar, J., Coroxón, S. and López, Y.). pp 110-115, in: Agrinatura and FAO. 2018. Building Competence and Confidence in Agricultural Innovation Systems. Stories of Change. Agrinatura, Paris, and FAO, Rome. 196 pp.

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