

Catalysing Innovation in Agriculture

CONVERSATIONS OF CHANGE



Publications in this series

CDAIS manuals and guidelines

- *Capacity Needs Assessments – A trainers' manual (2nd edition)*
- *Innovation Niche Partnerships – A guide to the coaching process*
- *Organisational Strengthening – A guide to the coaching process*
- *Organising a Marketplace – A practical guide*
- *Organising a Policy Dialogue – A practical guide*
- *Monitoring, Evaluation and Learning – Concepts, principles and tools*

CDAIS stories and conversations

- *Building Competence and Confidence in Agricultural Innovation – Stories of Change*
- *Catalysing Innovation in Agriculture – Conversations of Change*

The manuals are intended as working documents. The project supported the development of the Common Framework on Capacity Development for Agricultural Innovation Systems of the Tropical Agriculture Platform, and tested it in eight pilot countries. One key finding was that the framework requires adaptation in each country situation, and as such the manuals are intended as general guides only.

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BURKINA FASO



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The Government of Burkina Faso embraced innovation in agriculture many years ago, thus CDAIS could build on solid foundations. Six innovation niche partnerships were selected, each working on very different types of innovations, technically, socially or organisationally, and facing contrasting challenges for capacity development. Agrinatura partner CIRAD, well established in Burkina Faso thanks to strong partnerships with key stakeholders within the national agricultural innovation system, implemented the project with FAO and the Ministry of Higher Education, Scientific Research and Innovation (MESRSI). This conversation illustrates one of the key challenges to accelerate agricultural innovation in the country: the need to support innovation with organisations that do not usually intervene in agricultural development, such as developers of information

and communications technology (ICT) based solutions – incubators, telecommunications companies, institutes for computer science research or intellectual property rights. It then presents how such new types of partnership can be promoted at the national level by innovation support service providers and by the government.

“What we really learnt is sharing, in a process that included us all from the beginning to today, developing our capacities to collaborate, experiment and learn.”

Noufou Sankara President of member organisation Yako CAP

Learning to work as a group, using the CDAIS problem/solution tree at a forum on e-agriculture in March 2018.



Farmer organisations aiming to innovate

In 2003, seven farmer organisations gathered to create the 'Réseau-Gestion' network to support each other in implementing new advisory approaches that broke with traditional top-down, production-focused extension. With support from researchers, they developed 'management advice for family farms' based on adult learning methods, including training, exchanges of experiences, adding value to indigenous knowledge, and decision making support based on technical and economic data analysis.

After 15 years of experimentation and implementation, questions arose regarding the scaling up that was required to increase the number of producers with access to this advisory service, and the institutional and financial sustainability of advisory mechanisms. Marc Gansonré, a farmer and founder member, was clear: "Our question was how to move beyond internationally funded projects, to developing sustainable advisory mechanisms that reached more producers while meeting the needs and expectations of family farmers."

Thus, during the initial capacity needs assessment organised by the CDAIS team, members of Réseau-Gestion considered it important to find an ICT-based solution that would speed up the collection, processing, analysis and transmission of technical and economic data used to advise producers. The digitisation of the 'management advice for family farms' service was expected to share information quickly, for timely decision making and at low cost.

Traditionally, this is done through questionnaires that are expensive to gather, analyse and store, made even more difficult by the illiteracy of many farmers. Producer organisations also wanted to digitise data for evaluation of various experiments to give them added legitimacy with public services and international partners. "There is no point experimenting with something you cannot really value properly, to achieve goals we set ourselves a long time ago", said the President of FNGF, one of the member organisations supporting the move to digitise. "We want it to be digestible so that all actors see themselves there, and especially the technical services, advisers and facilitators", added Arouna Zongo also from FNGF.



Marc Gansonré of Réseau-Gestion explaining how agricultural production could be improved with the use of innovative ICT-based advisory services.



Leaders and advisors of farmer organisations testing a digital platform for improving their extension services, with the help of Ecodata West Africa, specialised in ICT-based solutions.

“CDAIS is like oil in the machine that accelerates ongoing innovation processes.”

Georges Yameogo National Project Coordinator and Deputy General Manager at Centre National de la Recherche Scientifique et Technologique (CNRST)

To support Réseau-Gestion in this innovative project, the CDAIS team decided to help them engage in a partnership with a developer of ICT-based solutions. A coaching team was established with two facilitators – Marc Gnoumou, also an advisor to the Ministry of Agriculture, and Idrissa Nacambo – responsible for identifying relevant technical partners, organising collaborative work, clarifying obstacles and helping to find solutions.

Creating new types of collaboration

The CDAIS team met Ecodata West Africa, which specialises in developing ICT solutions, and invited them to participate in the CDAIS marketplace in July 2017, resulting in an agreement to develop a proposal to digitise advisory services with Réseau-Gestion. The design was piloted, but tensions and misunderstandings emerged between the seven producer organisations, related to the provision of resources by each, and ownership of the future digital device. Numerous consultations and meetings eventually made them aware that they had different roles to play in order to guarantee the successes of this collaboration.

At the beginning, Ecodata was thinking only of a simple challenge, to digitise survey questionnaires for use via tablets, and storing data on a remotely accessible virtual platform. But their approach was still unknown to most people, requiring several meetings to find good modes of communication, and to agree on what a digital platform is, how it works, and how it can meet farmers' needs. Very quickly, facilitators found that support was needed to strengthen Ecodata's own capacity to carry out this development.

“One notable change was the new dynamism of the network's management thanks to CDAIS capacity development, especially after the initial assessment workshop, leading to an awareness of the need to work together.”

Marc Gnoumou National Innovation Facilitator

Developing technical and functional capacities

The main challenge for Ecodata was to build on the network's capacity needs assessment and integrate a digital platform into their already existing advisory services. As Aurélie Toillier, Agrinatura Focal Person and Centre de coopération internationale en recherche agronomique pour le développement (CIRAD) researcher said, “It was a new process for Ecodata, more used to tailoring ICT solutions to user needs rather than engaging in a collaborative solution that required ongoing interactions between users and designers.”

But Ecodata quickly realised that it would not be possible for network members to list every demand that the digital platform must meet, that it was difficult to anticipate the characteristics of a new tool that had never been used before, and that such reflection was in principle rather theoretical. “In such an innovation process, users cannot express their needs well”, said Véronique Henry of the supporting organisation Orange Lab, “so Ecodata needed to observe users in the long run, in an intuitive process that required a certain kind of thought from project leaders, based on design-thinking approaches and using tools like ecosystem maps and experience cards.”



Véronique Henry of Orange Lab, training the Ecodata West Africa technical team in an innovative approach to design thinking, focused on users' needs.

“The working method of the CDAIS coaching team helped us to clarify the modalities of collaboration among the Réseau-Gestion network and brought farmer organisations closer together.”

Mahamoudou Korgbo family farming advisor

Francis Yaro of Ecodata, in charge of developing the tool explained his view: “This experience allowed me to strengthen my skills as a computer scientist. This was a first for me and I acquired a lot of knowledge at every step, but collaboration with farmer organisations was difficult at the beginning. However, with further exchanges and sharing between the coaching team, the network, and with practical tests, we adapted the tool to the needs of the advisors. This tool will boost the agricultural sector and allow both advisors and producers to improve their organisation and save time and energy.”

The training done by Orange Lab was also very useful to the CDAIS facilitators. “This allowed us to improve our coaching process by adding intermediate stages of the testing phases”, explained National Innovation Facilitator Idrissa Nacambo. “This made it possible for producer organisations to be more involved with the design of the ICT platform, and we discovered new tools that will be very useful for the facilitation of future co-design innovation projects.” And so, during this process, Ecodata saw limits and experienced a learning cycle that allowed it to progressively reinforce the capacities of its technical team.

“There were two great learning moments”, said Ecodata Director Alexandre Kabré. “First was the prototyping stage, and second was the introduction of the design-thinking approach that we did not understand at the time. For us, it was simply a matter of adapting existing digital tools that had been developed in other projects to the needs of the producer organisations. But then we realised the need to design something that truly fitted to their capabilities. We had to adapt to this, and introduce this new approach into our own work practices. As a result, the design process took much longer than expected, with many exchanges between our teams, the CDAIS support team and the

producer organisations. But, thanks to these many meetings, we got to clearly understand the value of this design approach to promoting innovation.”

Farmer organisations’ capacities were also strengthened. Collaboration between network members was strengthened with improved communication, especially around the identified common problem of the need to modernise the advisory services. Creating and maintaining a new partnership with Ecodata was also a major change. But this experience also improved relations between the producer organisations and the Ministry of Agriculture, especially through involvement in the reflection and revision workshop prior to implementing the ministry-promoted Council Farm Management Program (CGEA). In addition, stakeholders noted that another major challenge was to find a workable business model for the digital platform to be viable, so the network decided to try to use the platform to access future funding by increasing access to the maximum number of possible members.

“We cannot innovate alone. Innovation is by itself collaborative, and the facilitator has to be a ‘connector of stakeholders’ who accompanies partnerships towards a common goal.”

Marc Gnoumou National Innovation Facilitator

Creating an enabling environment

CDAIS supported Ecodata in organising a forum to explore conditions for continued interactions to overcome obstacles to the development of e-agriculture in Burkina Faso. CDAIS facilitators designed an approach to facilitate sharing and learning, mixing diagnosis with group work and plenary discussions, and the forum was a real success. Participants felt that they learnt a lot about the complexity of the situation, initiatives in e-agriculture, issues, and the diversity of possible solutions. “The fact that actors are meeting to discuss common issues is a winning step!”, enthused Souleymane Jules Gaye from the NGO RONGEAD.

Government extension officer Albert Traoré agreed, “I discovered the existence of many initiatives and people involved in e-agriculture”. Issa Sidibe, Permanent Secretary for the Coordination of Agricultural Sector Policies, also noted the added benefit that “such a forum allows progress in finding solutions to strengthen the links between research and development.”

Further issues were raised at the national level during a CDAIS policy dialogue process that included the Secretary of State for Agriculture, the Minister of Higher Education, Scientific Research and Innovation, and two members of parliament. This gave them the opportunity to better understand the importance of the digitisation of advisory services, and the role they could all play in developing them. This work in support of multi-stakeholder innovation partnerships made it possible to concretely illustrate the importance of specialised coaching teams for both technical issues and functional skills.

At the end of the policy dialogue, proposals were made to strengthen the capacities of agricultural advisory services. In particular, it was suggested to the Ministry of Agriculture and the Ministry of the Digital Economy, to establish special

funds for equipment and infrastructure, and to allocate human resources to support farmer organisations so they can improve access to digital agricultural advisory services and funding tailored to their specific needs.

“The proposals of the working groups will be very useful to continue the capacity-development process to innovate at a political level”, said Toillier. “Rethinking the role of researchers, applying the instruments of the Directorate General of Scientific Research and Innovation, promotion of scientific culture during innovation days, and developing support services for innovation in the private sector, are all avenues to explore as we aim to strengthen national agricultural innovation systems.”

Zacharie Segda, Country Project Manager and Director of BUNASOLS, noted that “Burkina Faso needs to harness ICTs to modernise the agricultural sector and strengthen its contribution to economic growth. This is why this policy dialogue highlighted the relevance of working together – government, private sector, civil society organisations and NGOs – and that the government should enact strong policies to facilitate adoption of digital platforms at the farm level.”

Personal changes

CDAIS has also had impacts on individual behavioural change. Here is a selection.

“I was trained by CDAIS to facilitate multi-stakeholder workshops, and this allowed me to master key concepts and diagnostic tools such as the innovation timeline, problem tree, NetMap and many others. I also developed my facilitation and negotiation skills for partnership processes, especially for conducting win-win negotiations in difficult situations. And thanks to CDAIS, I learnt and reinforced my skills in organising events around innovation, evaluation of capacity needs.”
Lassaya Nikiema, National Innovation Facilitator, micro-irrigation partnership

“Personally, the project has strengthened my abilities at professional and family levels. We were trained to take the role of facilitator, wherever we are. And through

the ‘functional capacity’ development approach, I learnt a new way to give more power and more autonomy to members of my organisation, the CNABio.”

Clémence Samba Lankouandé, CNABio and National Innovation Facilitator, organic label partnership

“I am now convinced that the response to innovation problems and stakeholder issues must take into account functional capabilities as a priority for more efficiency and success in innovation projects.”

Idrissa Nacambo, National Innovation Facilitator, ICT advisory services partnership

“Thanks to the CDAIS project, we are no longer afraid to exchange or meet financial partners such as banks. Teamwork and our good organisation gave us a lot of confidence. Our products are of good quality and we receive positive feedback from our customers.”

Dembélé Martine, National Innovation Facilitator, agri-food processing partnership

Innovation partnerships in Burkina Faso



Sunflower

Facilitators: Drissa Sangare (extensionist), Salmon Zongo (MAAH)

Sunflower production was developed in Bobo-Dioulasso region between 2009 and 2013 thanks to a network of actors, producer organisations, processors, public research institutes and development agencies. However, technical obstacles including poor seed and unsuitable farm tools forced producers to abandon this opportunity. CDAIS strengthened capacities of actors to engage in policy and strategic processes to revive the development of the sector.



BioSPG organic agriculture label

Facilitators: Clemence Lankouande (CNABio), Lassaya Nikiema (DGRSI, MESRSI)

Since 2016, the organic BioSPG label designed by CNABio and partners has been used to promote organic production certified by a 'participatory guarantee system'. The main aim was scaling up by developing sectors that make certified products accessible to local consumers. CDAIS strengthened capacities of CNABio and partners to engage with public services to promote organic foods, strengthened their capacity to combine initiatives that support agribusiness, and strengthened the skills of producers to increase organic production.



Micro-irrigation

Facilitator: Raymond Kiogo (IRSAT)

Drip irrigation is being adopted only slowly by farmers, and there are too few local manufacturers, dealer networks and specialised advisers. Two levels of capacity-building needs were identified: for manufacturers to share experiences and build partnerships with researchers and local artisans to develop micro-irrigation systems tailored to farmers' needs; and for those involved in importing kits, to strengthen collaboration, reduce costs and develop a national distribution network.



Digitising agricultural advisory services

Facilitators: Marc Gnoumou (DVRD/MAAH), Idrissa Nacambo (FERT)

Réseau-Gestion is a network of six producer organisations pioneering the development of advisory services to their members, using the innovative 'family farming council' (CEF) approach to build the management capacity of producers. To lower the cost of services, the network aims to introduce information and communications technologies (ICTs), and CDAIS strengthened their capacity to design and test new ICT tools, and identify sustainable financing mechanisms.



Local property charters

Facilitators: Lassaya Nikiema (DGRSI, MESRSI), Blaise Yoda (DGFOMER)

Local property charters are municipal or village conventions that clarify or supplement land-use laws with local customs and practices. But due to divergent understandings of their application, a lack of coordination between technical departments of different ministries, and constraining project approaches, this innovative local development tool is rarely implemented. CDAIS strengthened the capacities of the Land Action Research Group to create a common vision and strategy to apply the charters.



Family food processing micro-enterprises

Facilitator: Raymond Kiogo (IRSAT)

Women have been creating their own agri-food processing companies for many years by promoting local agricultural products and bringing original foods to a market accessible to urban populations. The aim was to support their development by strengthening abilities to experiment and learn together, to negotiate and draw up contracts with their suppliers and distributors.

Key lessons learnt

Over almost four years, CDAIS supported six innovation niche partnerships, each with its own challenges. For some, the aim was to strengthen an innovation network (e.g. the organic CNABio label), or design a solution to a problem (e.g. digitisation of advisory services), or support entrepreneurial dynamics (e.g. family food processing), but in each case, “the key to success was a competent and well-equipped coaching team that took the time to build trusting relationships, and learn to understand what enables the various players to progress together”, explained Toillier. In doing so, the coaching team identified common capacities that needed developing, as Prosper Kola, responsible for the coaching of innovation support service providers, added: “For example, the lack of individual creativity is a major obstacle in allowing people to develop satisfactory solutions, while at organisational level, the ability to agree a strategic vision and manage human and other resources are key capacities to be strengthened.”

In addition, as noted by Aristide Semporé, responsible for the CDAIS monitoring system, “functional capacity building is meaningless if it does not complement the development of a technological or organisational solution. The motivation and commitment of individuals and organisations in a collective process is based on a ‘doing together’ approach that requires material support.” The CDAIS project therefore complements other innovation support initiatives that finance the human and material resources that are essential for innovation. “But, too often, periods of innovation last too long, and that ends up demotivating people”, observed Georges Yameogo, National Project Coordinator and Executive Officer with the national scientific and technological research centre (CNRST, Centre National de la Recherche Scientifique et Technologique). “If we can focus functional and technical support in a short time frame, then we will have a very effective innovation system.”

At policy level, there is already much support to innovation just waiting to be implemented. “The goal is not to reinvent the wheel but to apply our laws”, said Issa Tapsoba, Director General of the Directorate of Higher Education, Scientific Research and Innovation. “The challenge, then, is to train research and education organisations on new concepts related to innovation support, such as how

to enable the establishment of incubators.” The training of innovation professionals is one of the keys, and this was the subject of a specific recommendation during the policy dialogue: the addition of dedicated courses on innovation support services to add to agricultural curricula in schools and universities. “A continuation of the CDAIS project is needed, to sustain the learning at partnership level”, concluded Zacharie Segda, FAO Country Project Manager. “And it is necessary to work more with organisations that provide innovation services so we can replicate support mechanisms designed by the CDAIS team.”

“We need to better understand innovation processes and the factors that lead to innovation. We must also look for concrete solutions, identify priority interventions and develop strategies that will then make it possible to multiply these successes.”

Moussa Maiga delegate of the official Representative of FAO in Burkina Faso

This story presents results from the work of the CDAIS Burkina Faso country team, based on interviews with CDAIS partners, and prepared by members of the CDAIS country team.

Zacharie Segda (FAO) – Country Project Manager; Georges Yameogo (CNRST) – National Project Coordinator; Aurélie Toillier (CIRAD) – Agrinatura Focal Person; Aristide Semporé (CIRAD consultant) – Lead Monitoring, Evaluation and Learning Facilitator; Gisele Minoungou (CIRAD consultant) – Communication Officer; Abdoulaye Saley Moussa – FAO HQ Technical Support; Interviews – CDAIS national team; Photographs – CDAIS unless otherwise stated.

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