How to support innovation processes in agricultural sector? Diversity and complexity of situations of innovation in Burkina-Faso.

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Rationale

Facilitate innovation processes is considered as one of the solution for improving value chains performances and accelerating agricultural development while meeting the challenges of population growth, climate change and environmental degradation.

The question of how to enable agricultural innovation has been largely discussed and researched leading to numerous recommendations but still without intended impacts. The prevailing view is about ensuring that conditions that nurture eclectic approaches to innovation exist, and that competitors join forces with each other to constantly adapt institutional and policy framework conditions for innovation (Hall *et al.,* 2007). Seeing innovation as the result of complex and multidimensional interactions as the dominant thinking (Klerks *et al.,* 2012) led to the implementation of innovation platforms and networks as a silver bullet (Kilelu *et al.,* 2013).

However there is a real lack of knowledge about tools, methods, incentives or skills which are suitable to organize exchanges and work within a diversity of innovation networks in order to make them efficient with evident improved capacities to innovate. The research of abstraction and generalization impoverished knowledge on innovation support mechanisms themselves.

Hermans *and al.* (2013) showed that helping the agency of specific individual or organizational skills within an innovation network in order to fulfill basic functions (knowledge co-creation, outscaling, up-scaling) is a key to successfully support agricultural innovation process. It raises new questions about the possibility to strategically manage multistakeholders' innovation processes. How to build a common vision and flexible institutional arrangements? How to ensure that all functions are performed? What is the role for monitoring and learning approaches? Regarding agricultural innovation drivers, can we manage any type of innovation process?

In order to address those issues, we proposed to identify and explore a diversity of situations of innovation in order to emphasize management practices which have a positive impact on innovation processes. The objective is to help set a framework for the characterization of different successful innovation support models.

Conceptual Framework

Our approach crossed two fields of literature, usually unconnected: organizations and management. First organizational studies mainly highlight the challenges for organizations to manage both exploration and exploitation processes in order to perform innovation (Argyris and Schön, 2002). Several managerial levers have been identified as key determinants (Crossan *et al.*, 2010): learning and knowledge management, organizational culture, structure and system features, resource allocation and explicit innovation strategy.

Second in the area of management studies, there are few empirical studies addressing the role of organizational designor inter-organizational cooperation (Brion *et al.,* 2008).

In order to bridge this gap, we built a framework which seeks to link managerial action with innovation as a process and outcome of organizational level, using network, learning and knowledge theories. We

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defined a situation of innovation similar to a management situation (Berry 1983; Girin, 2016), in order to empirically address ongoing innovation processes. A situation of innovation is a set of activities in interaction, associated with the idea of collective action and results which are submitted to a judgment. Individuals are considered engaged in a situation of innovation when they recognize that they participate, at various degrees, to the production of those results.

We made two assumptions: i) there are management practices that help agents of a situation of innovation to fulll expected functions (knowledge co-creation, out-scaling, up-scaling); ii) there are organizational factors which facilitate the implementation of those practices.

We combined two levels of analyse: i) the situation of innovation, which is composed of multiple organizations all connected via their contribution to innovation process; ii) the activity level of individuals. We consider indeed that innovative capacity of organization lies primarily at the individual level and is strongly related to praxis and practice of individuals.

From a literature review, we identified a set of prevalent explicative variables and items at each level (tab. 1 & 2). Then we operated in two steps. Firstly, an exploratory approach aimed at testing and validating these variables: how far the model described the diversity and complexity of different situations of innovation. Second, we evaluated the predictive use of our structural model: how the variables will behave if one of more of them are changed.

In this paper, we present the results of the first step of our research.

Methods and data collection

We developed our approach in Burkina-Faso. Based on a scoping study of the challenges at the level of national agricultural innovation system and based on participatory workshops with innovation stakeholders, we identified intensive innovation areas where development challenges are considered as priority. We then identified a diversity of innovation processes regarding three criteria: nature of innovation-product (technical, organizational, service, social), stage of innovation-process (initiation or implementation) and the main perceived obstacles to the success of innovation. Based on those criteria, six situations of innovation considered as representative of the diversity of innovation processes have been selected (tab 3). In order to collect data, we combined focus groups at the organizational level, workshop at the level of the situation of innovation and individual interviews (tab.4).

Results

The application of our method on three situations of innovation helped to fine-tune our explanatory variables and items. We added more synthetic variables at the individual level, addressing motivation and interessement issues, which have been identified as key drivers of the level of contribution to a situation of innovation. Results at the level of situation of innovation showed the diversity and complexity of the relationships between organizational factors and actual activities that constitute the fabric of innovation.

Discussion and conclusion

Considering the starting research project, results are mainly conceptual and methodological. Our results helped to deepen the understanding of a situation of innovation which is an invisible locus where innovation is managed in some kind of explicit manner depending on the profiles of individuals involved. However preliminary results let us think that existing management tools and procedure at both the inter-organizational level and organizational level did exist and helped to overcome the weaknesses of individual or organizational capacities for innovation.

Our approach is complementary to other approaches developed in the framework of AIS thinking which are very descriptive and fall short of helping the identification of concrete actions for facilitating innovation.

Considering the nature of management processes at the level of situation of innovation, we recommend to implement sort of support committees that will act as a management and investigation body in order to strengthen overarching innovation capacity of stakeholders, in a continuous and targeted manner (Lenfle S. 2004). One-size-fit-all and one-shot capacity development interventions are not suitable to support innovation. Further analysis of our results will help to identify composition, roles and tools for these committees.

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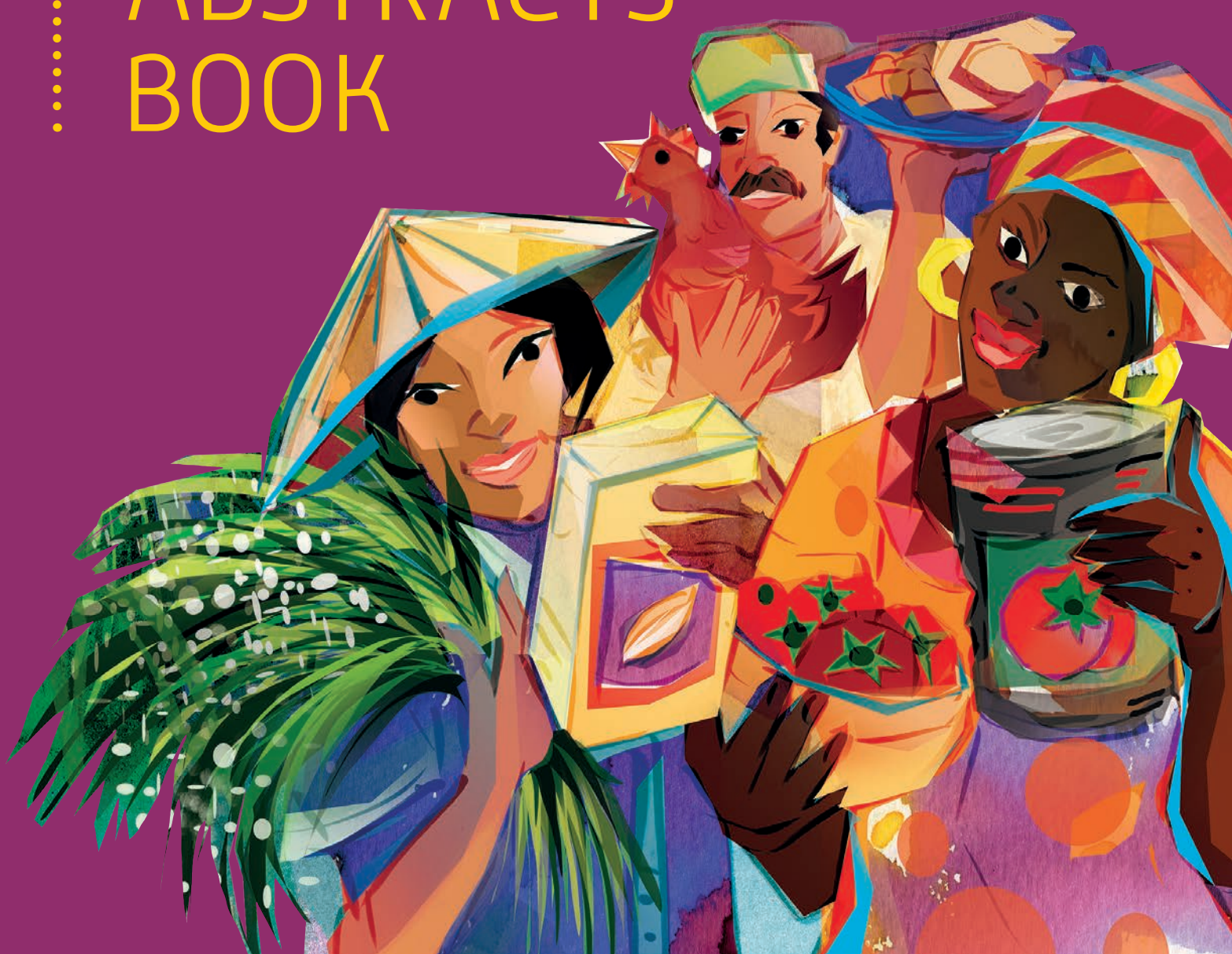

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Welcome to **AC&SD** 2016

On behalf of the Scientific and Organizing Committees, it is a great pleasure to welcome you to the International Conference on Agri-chains and Sustainable Development (**AC&SD** 2016). This conference aspires to widen the debate about the role of agricultural value chains towards sustainable development. Year 2015 was a critical political and diplomatic milestone: the member states of the United Nations signed a new agenda for development, with the 17 Sustainable Development Goals (SDGs) placing sustainability at the core of international efforts. Development and academic actors are since then exploring new avenues for translating the SDGs into reality and implementing global and local frameworks and partnerships. Our conference aims at joining these efforts, with the consideration that agricultural value chains form spaces where local and global challenges to sustainability connect and within which local and global actors experiment and negotiate innovative solutions.

The scientific committee has assembled a very attractive program for **AC&SD** 2016 that seeks to cover and confront the diversity of realities behind agri-chains, from localized chains, embedded in specific places, to global value chains. In the parallel sessions, transformations of these agri-chains and their connections to sustainable development will be discussed by speakers from the academia, the civil society, the private sector and decision makers. This multi-stakeholder perspective will also be brought about in the plenary sessions. Here, world renowned keynotes and panelists to three high level round tables will discuss about the role and importance of evaluation, public and private institutions and innovations at different scales for transforming agri-chains towards sustainability transitions.

This edition gathers about 250 participants from 39 countries. **AC&SD** 2016 owes a lot to the scientific and organizing committees for preparing the program, and particularly to Brigitte Cabantous, Chantal Carrasco and Nathalie Curiallet for all the logistics, as well as to our support team of Alpha Visa that we warmly thank for their help.

We wish us all a fascinating, successful, inspiring and enjoyable **AC&SD** 2016 and we very much look forward to its result and to the strengthening of both a scientific community and a community of practice to implement the outcome!!

Estelle Biénabe, Patrick Caron and Flavia Fabiano,
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Session 10

Innovations in approaches and tools for inclusive and efficient value chain development

Session 11

Linking global value chains and territories: conceptual insights for understanding and ensuring sustainability at different scales