



Stakeholder mapping, analysis and engagement for development projects in southern Mali

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Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three regional projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads the program's monitoring, evaluation and impact assessment. <http://africa-rising.net/>



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Introduction

Agriculture today is evolving in an environment of rapid changes in technology, markets, policies, demography and natural environment. The challenges these changes pose to the national agricultural sectors and rural communities are context specific and complex, and are therefore putting new demands on all actors in and round the agricultural sector to innovate and develop new ways of collaborating to generate knowledge to put it into use at the required space (Daane, 2010). There are various accepted views of innovation in agriculture: it is seen today not only as driver of growth and sustainable labour productivity but also as a lever for responding to environmental challenges and accelerating the transition towards both economic and ecological performance (Guillou et al., 2013).

Yet, agricultural innovations have often been adopted slowly and some aspects of the adoption process are still poorly understood. Recent studies have shown that, both in developing and developed countries, social networks and peer effects are an important determinant of individual behaviour in a variety of settings. As reported by Bertrand et al., (2000), the economics suggests that many individual decisions, as diverse as school attendance, drug use, internet adoption, and welfare participation, are positively correlated with the behaviour of the social group the individual belong to. Macroeconomists have also identified social learning and information spill-overs as an important driving force in models of endogenous growth (Benabou, 19996; Durlauf, 1996). In the context of rural economies, Foster and Rosenzweig (1995), and Conley and Udry (2010) reported that farmers within a group learn from each other how to grow new crops varieties. Overall the evidence suggest that network effects are important for individual decisions, and that, in the particular context of agricultural innovations, farmers share information and learn from each other (Feder et al., 1985).

There are various accepted views of innovation in agriculture: it is seen today not only as a growth and productivity driver but also as a lever for responding to environmental challenges and accelerating the transition towards both economic and ecological performance.

Over the last few years, international institutions have therefore begun to promote a more systematic approach to innovation. The World Bank's publication in 2006 of a report entitled Enhancing Agricultural Innovation: How to Go Beyond the Strengthening of Research Systems prompted numerous initiatives in developing countries, like the multi-stakeholder innovation platforms in Africa.

Increasing awareness of the role other stakeholders could have in innovation processes gradually saw it evolve into the concept of the Agricultural Knowledge and Information System (AKIS).

The AKIS is a system that combines people and institutions to support mutual learning. This includes teachers, researchers, advisers and farmers, with the latter at the heart of the "knowledge triangle". More recently, the same acronym – AKIS – has been used to refer to Agricultural Knowledge and Innovation Systems, which represents a shift towards the notion of an Agricultural Innovation System (AIS).

Innovation networks are particularly effective for developing and diffusing technical and commercial innovations that deal with unpredictable or complex issues, like new approaches for

natural resource management or the development of market niches for marginalized households.

Innovation networks facilitate the exchange of knowledge, abilities, and resources among their members, but effective networks also interact with other networks and sources of information (Ekboir et al. 2009) through a few central nodes. Innovation brokers are particularly prepared to become central nodes. By linking clusters of network actors, the central nodes facilitate flows of information and resources, as exemplified by agricultural research institutions' role in developing improved crop varieties and agricultural practices in West Africa.

Africa RISING project in the context of innovation systems:

The Sustainable Intensification of Cereal-Based Farming Systems in the Sudano-Sahelian Zone; is a USAID funded project in Mali under the auspices of the Africa research in sustainable intensification for the next generations (Africa RISING) that consists, "to create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base".

Design and implementation of development programmes involves and affects many people within and external to the target communities. Some of these people have power to constrain whilst others can facilitate successful programme delivery and scaling. Thus stakeholder identification, engagement and management are key to success. It is critical therefore that the right people are engaged and the right messages delivered at the right time in the right format. Stakeholders are generally described as the people or organisations that matter, or have vested declared or conceivable interest or rights in the reform process or programme (Mayers, 2005, Schmeer, 2000, World Bank, 2001). Stakeholders can be individuals, organisations or groupings including civil society, donors, government ministries or departments, national legislators, non-governmental organisations, private sector actors, traditional leadership and the target communities (Mayers, 2005, Schmeer, 2000, World Bank, 2001).

The main levers of innovation lie in the various networks and partnerships between stakeholders; these exist at varying levels of formality and act as forums for sharing knowledge and experience, leading to "cross-fertilization". Various examples of innovation have developed within knowledge-transfer networks of this kind (agroforestry, direct sales, etc.). These can involve AKS institutions (such as researchers and advisers) but often develop initially alongside them.

The innovation systems approach has led to the emergence of a combination of instruments in various countries, including clusters, public-private partnerships, learning networks, etc. One of the most popular tools at the moment is the establishment of multi-stakeholder platforms or networks. These are formal networks involving various stakeholders (farmers, businesses, institutes, etc.), which discuss current innovations.

Another trend is the emergence of innovation agencies and 'brokers'. Brokers play the role of intermediaries, middlemen and even independent mediators. They help to connect demand for innovation (from farmers) to supply (from research, advice and other networks) through various

actions, including disseminating research results, conducting foresight exercises with different stakeholders, etc.

Stakeholder analysis provides a typology of institutions, people, organisations and interactions between them. Stakeholder analysis is therefore;

- A tool for identifying key actors and assessing their importance in relation to the programme or policy reform (Schmeer, 2000, Smith, 2015).
- A process that gives opportunity to individuals or groups to express their views.
- A methodology used to facilitate institutional and policy reform processes soliciting for and incorporating the needs and interest of relevant stakeholders (World Bank, 2001).
- A process to identify marginalised groups so that they can be engaged and empowered (Mayers, 2005).

Conceptualizing framework for action

The basic structure of the framework arranges the relevant components into three disaggregated clusters: the design, implementation and adaptation. It is noteworthy to recognize that there is necessary overlap between the three clusters. Analysis of one will inform or help to perform aspects of one or both the other clusters.

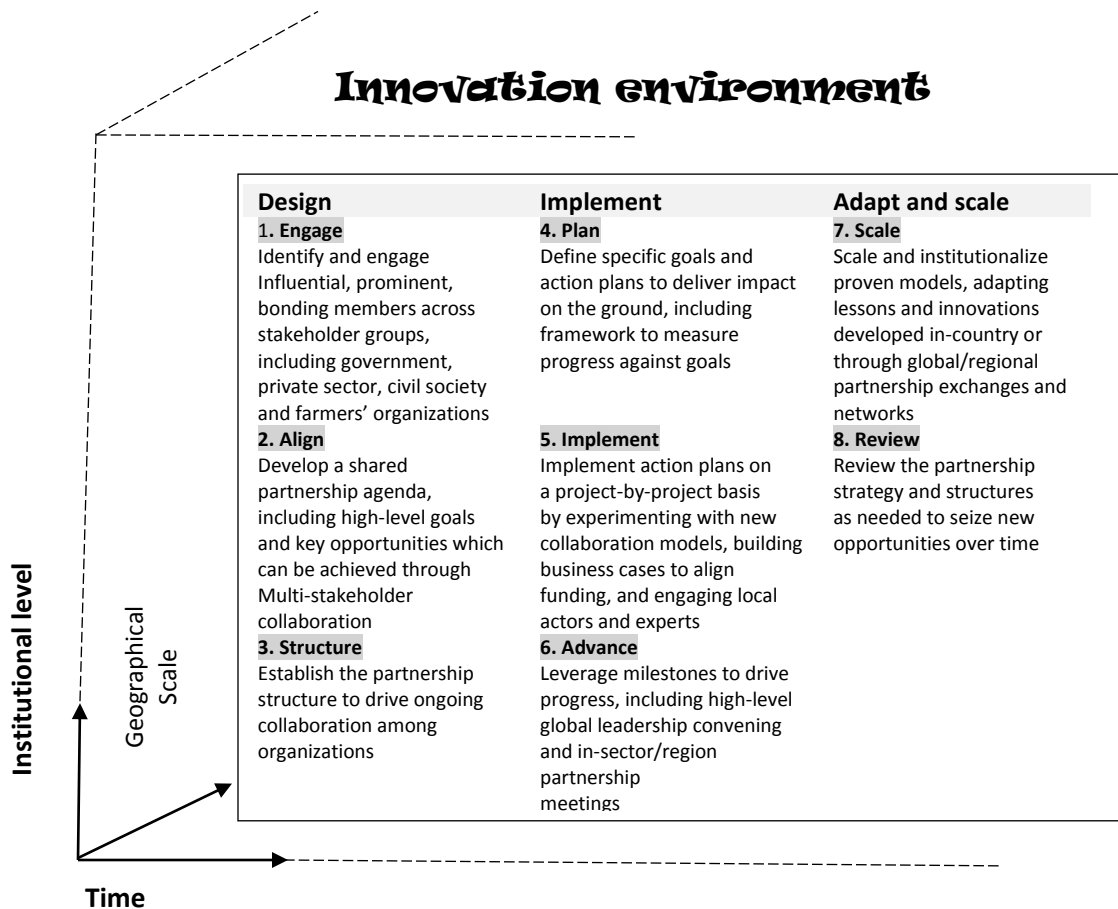


Figure 1: conceptual framework for networking and partnering to foster agricultural innovations (adapted from Prager et al., 2015; WEF, 2016).

The design of multi-stakeholder networks that encompass the promotion of agricultural innovations is taken as the starting point, its objectives, that consist to identify and engage network actors, align and structure a sustainable partnership is considered here. In analyzing the implementation (process, output and outcomes) of specific innovation network, definition of goals, implementation of action plans and leverage of milestones to drive progress are key concerns.

Adaptability and scalability of innovation networks need to be considered as a characteristic of individual networks, as well as the communities or indeed the region in which a given innovation is being promoted or implemented. The innovation environment or regional context is the setting in which innovation is introduced, e.g. a given geographical area with its socio-economic, environmental and socio-cultural characteristics. This includes wider societal processes and other policies that impact the number and quality of network actors.

The whole process of innovation networking and partnership has a temporal dimension, an institutional dimension and a geographical dimension. These three dimensions are denoted along the axes as the institutional level, the geographical scale, and the time scale. Issues associated with multi-scalar and multi-level nature of innovation brokerage have been recognized in recent framework for evaluation of policy agricultural innovation systems or natural resource management systems (Lopez Ridaura et al., 2005; Plummer and Armitage, 2007; Prager et al., 2015)

The temporal dimension emphasizes the importance of process while in contrast, the geographical scale and institutional level are concerned with organizations and the level at which their decision making take place and considers aspects relating to power dynamics (Prager et al., 2015).

Environment in general, where an intervention is operating, is another issue which effects on innovativeness. Environment is a multivariable complexity, which has historical, social and cultural values embedded in the tradition. Environment includes also factors where a single firm or organization can not affect, like for example economic trends, legislation, infrastructure or quality of life.

Innovation environment is a rather new framework, which further on includes many other factors, like innovative milieu, networks of different actors, leadership bodies and practices to manage this complexity. Ståhle et al. (2004) point out that the innovation environment includes the following elements: *Innovation environment is composed of four major elements: innovation system, local buzz, global knowledge pipe lines and shared interpretative frameworks of local actors.*

Objectives

This document is a prospective guideline that use practical information to help the community of researcher and practitioners ow they can proceed to build effective and sustainable partnership for better impacts while implementing research in development or development programmes.

Expected output

Outputs from this process will include among others:

- Stakeholder maps showing social networks of stakeholder relationships
- Power/interest grids for stakeholders
- Plans for engaging, managing and communicating with key stakeholders for both programme implementation and scaling
- A baseline of stakeholder networks in the programme sites for future comparisons
- Research deliverables on the process and method as well as the changes in stakeholder networks over time. This study is centred on the hypothesis that strong stakeholder networks enhance programme implementation and outcomes.

Drawing the networks for visual analysis in the selected areas of Koutiala

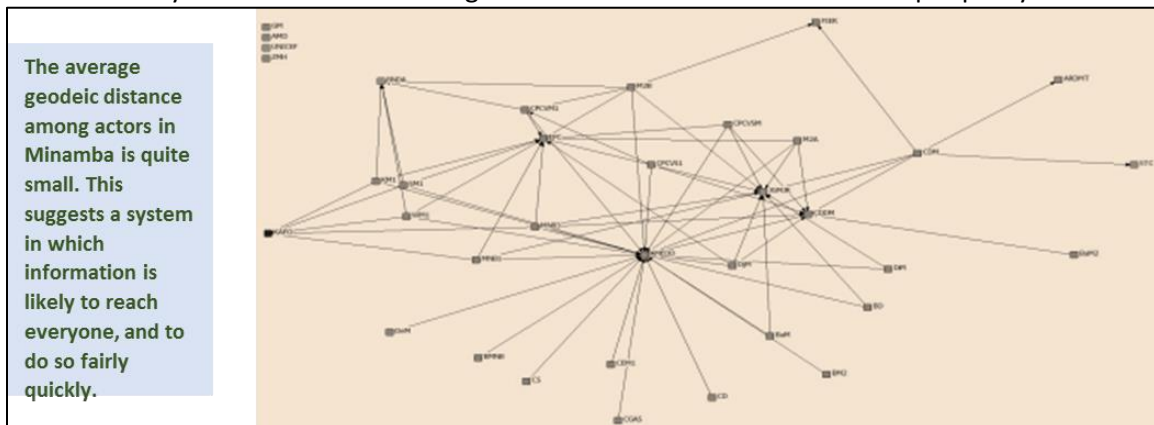
In this section, we intend to examine two set of characteristics. The first set of characteristics that relates to the entire networks or sub-networks helped to assess the amount of connectivity between all the members, indicating if the network is sparsely or densely knitted together.

The second set examines the characteristics of individual member of the network. These might include: non-involved members, prominent members, influential members, and bonders.

- Non-involved members are those that did not mention any other member nor did any member mention them for any type of interactions, or knowledge sharing;
- Prominent members are those who other members named (*known as in-degree in the social network language*). Those named the most by others are often said to be prominent, or have high prestige in a network. That is since many other members seek to direct ties to them, this may indicate their importance and in some cases, they are seen as information or resource providers.
- Influential members are those who report many interactions with other (*known as out-degree*). Members who have usually high out-degree report interacting with many other members, which may indicate they make many others aware of their view, and thus can be instrumental for persuading.
- Bonding members finally are those in the network that if removed would fragment the entire structure of the network more than any other member. In other words, most links in the network pass through them and for that they are considered bonders.

Menamba case study

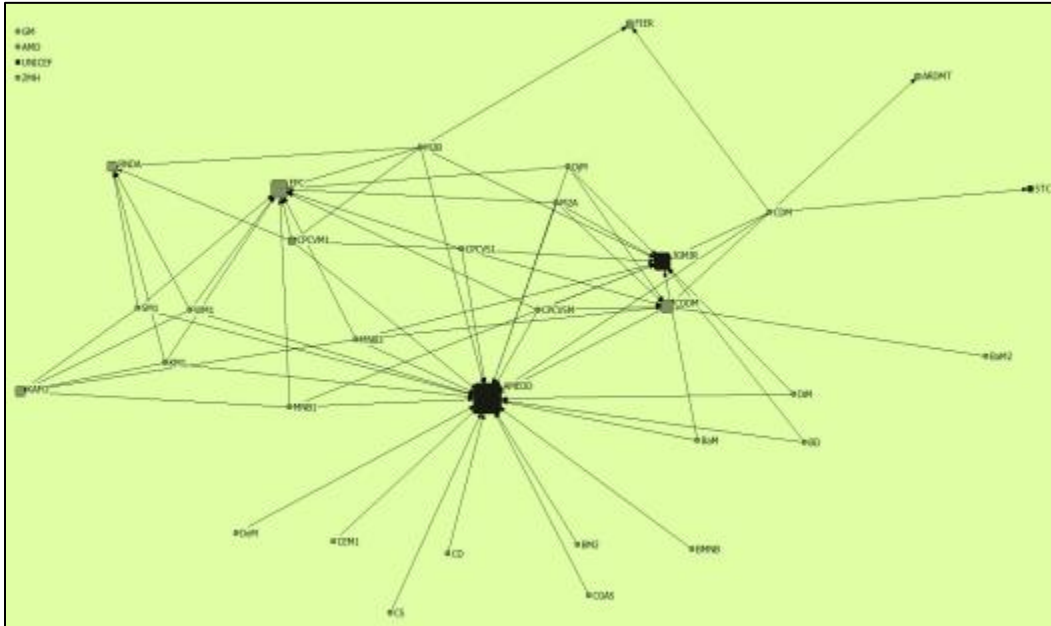
This map also displays the pattern of connections between nodes (stakeholder in Minamba). A number of lessons can be drawn from the figure. The Minamba-based network is quite distributed. One can also observe tightly knit, highly bonded subgroups constituting different clusters mostly with considerable linkages with a number of actors from the periphery.



Prominent actors Menamba

Roughly speaking, a cluster is a local region in a network with relatively high density and relatively few links to other clusters.

These clusters are being centralized around Association malienne d'evenil et de developpement durable (AMEDD), EPC/CMDT, Cooperative Djiguitougou de Dioncoua Menamba 1 (CDDM) and, ji gisèmèjiri (JGMJR).



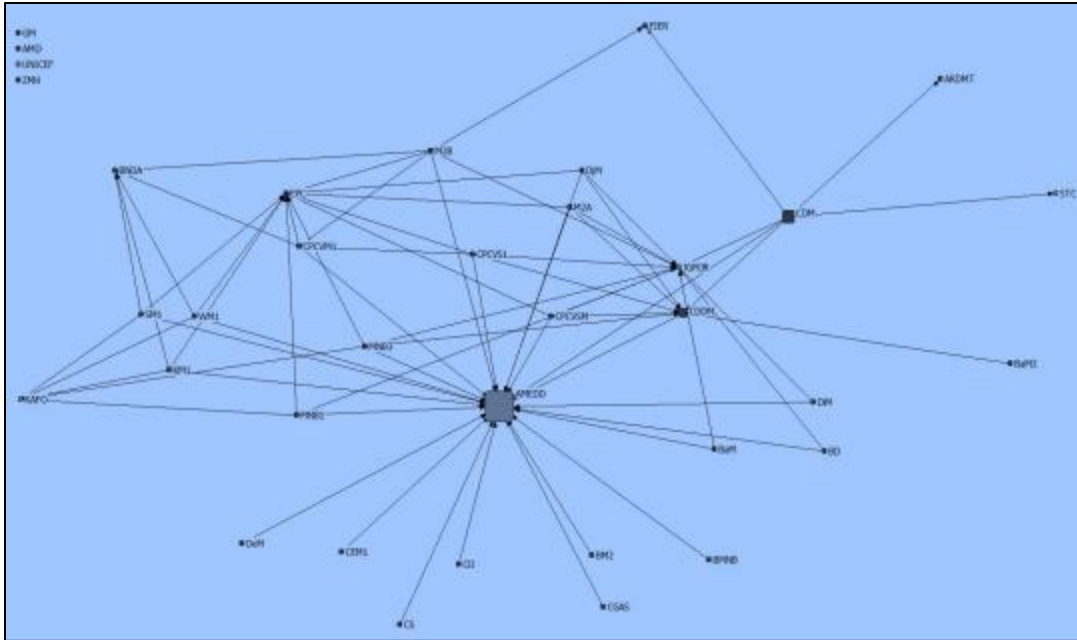
As such the four aforementioned actors seem to be prominent stakeholders in Menamba sub-catchment.

Influential actors Menamba

A number of actors including Minamba 2B (M2B), Cooperative Debadjee de Menamba 1 (CDM), Société coopérative des producteurs de coton et vivrier Siela 1 de Menamba 1 (CPCVS1), Menamba 3 (MNB3), Menamba 1 (MNB1), Weleromado de Menamba 1 (WM1), Kokounta de Menamba 1 (KM1), Sanworodo de Menamba 1 (SM1), Société coopérative des producteurs de coton et vivrier de Menamba 1 (CPCVM1), Djounkouna de Menamba (DJM), Société coopérative des producteurs de coton et vivrier Siela 2 de Menamba 1 (CPCVSM) report interacting with many other members, which may indicate they make many others aware of their view, and thus can be instrumental for persuading.

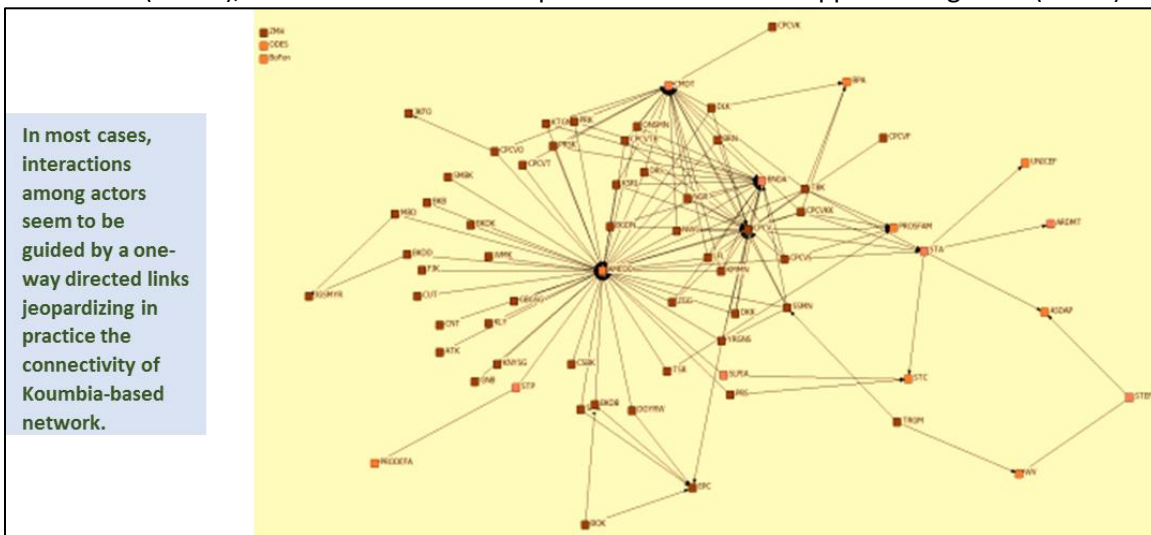
Bonding actors Menamba

Broadly speaking, **AMEDD**, and in a lesser extent Cooperative Djiguitougou de Dioncoua Menamba 1 (CDDM), and Cooperative Debadjee de Menamba 1 (CDM) seem to play the role of Bridgers in Minamba. Indeed, Bridgers provide valuable opportunities for innovation, growth, and impact because they have access to perspectives, ideas, and networks that are otherwise unknown to most network members. Finding Bridgers in a network is typically done with the calculation called betweenness centrality (Scott, 2000). This calculation indicates how often one actor is likely to be an important relay point between other network members.



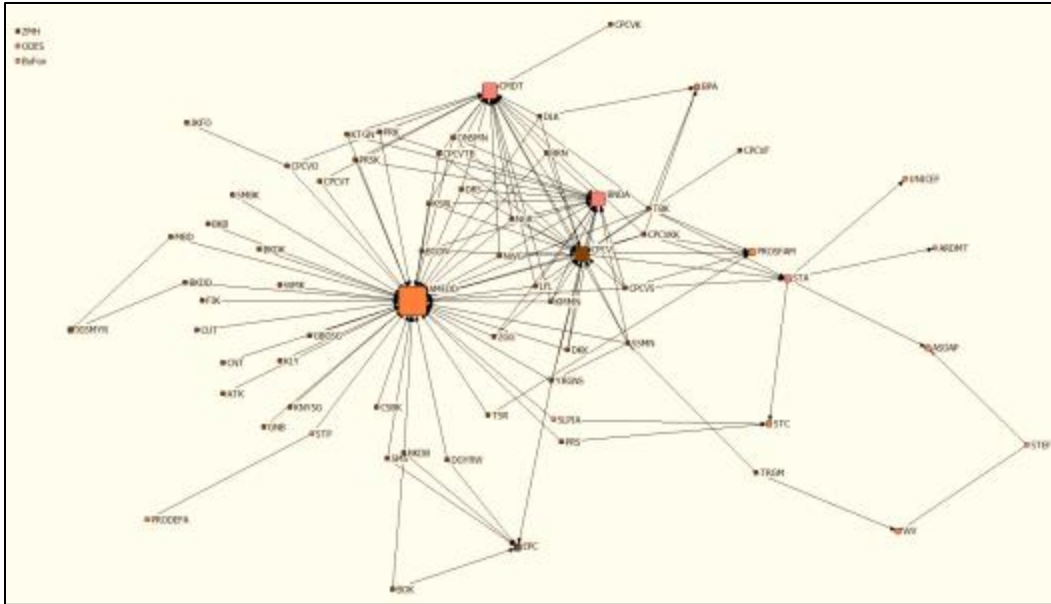
Koumbia case study

As it was mentioned in the previous sub-watershed connectivity among actors in Koumbia is quite clustered with tightly knit, highly bonded subgroups featured by AMEDD, Coopérative des producteurs de coton et vivrier de Koumbia (CPCV), Compagnie malienne du développement des textiles (CMDT), and in some extent Banque nationale du développement agricole (BNDA).



Prominent actors Koumbia

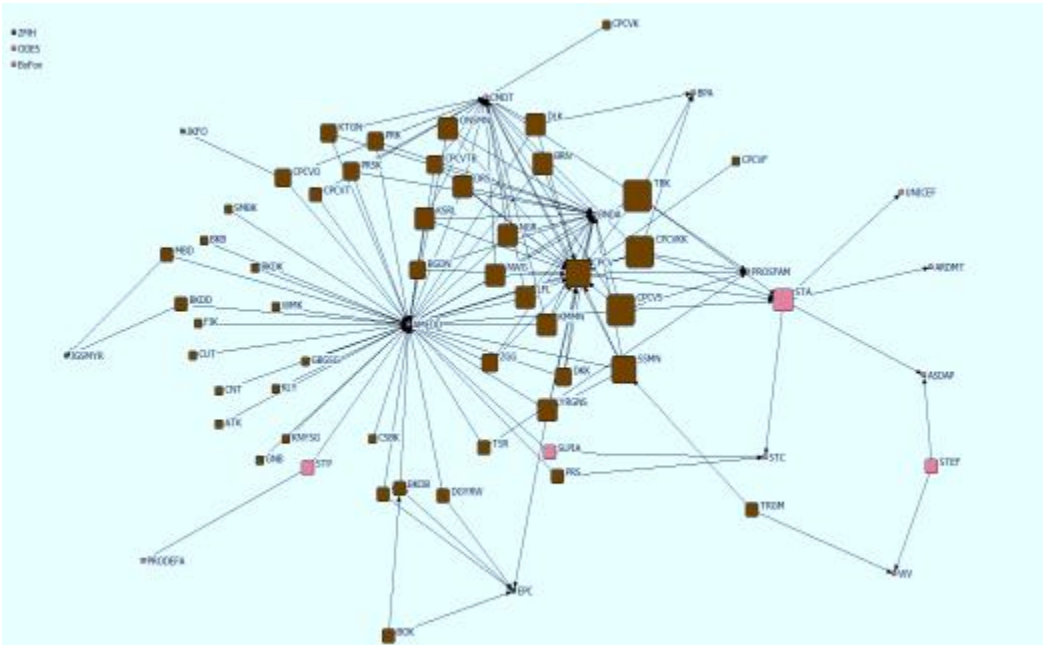
Obviously, as they are highly sought-after by other network members, AMEDD, CPCV, CMDT and BNDA can be considered as hubs of influence in Koumbia-based network.



Indeed, Hubs of influence in a network are best measured using directed links. Given a network of directed relationships, in degree centrality counts how many relationships point towards an actor: this provides a simple measure of prominence (Freeman, 1979).

Influential actors Koumbia

A good number of actors mainly from community-based organizations look influential in this network.

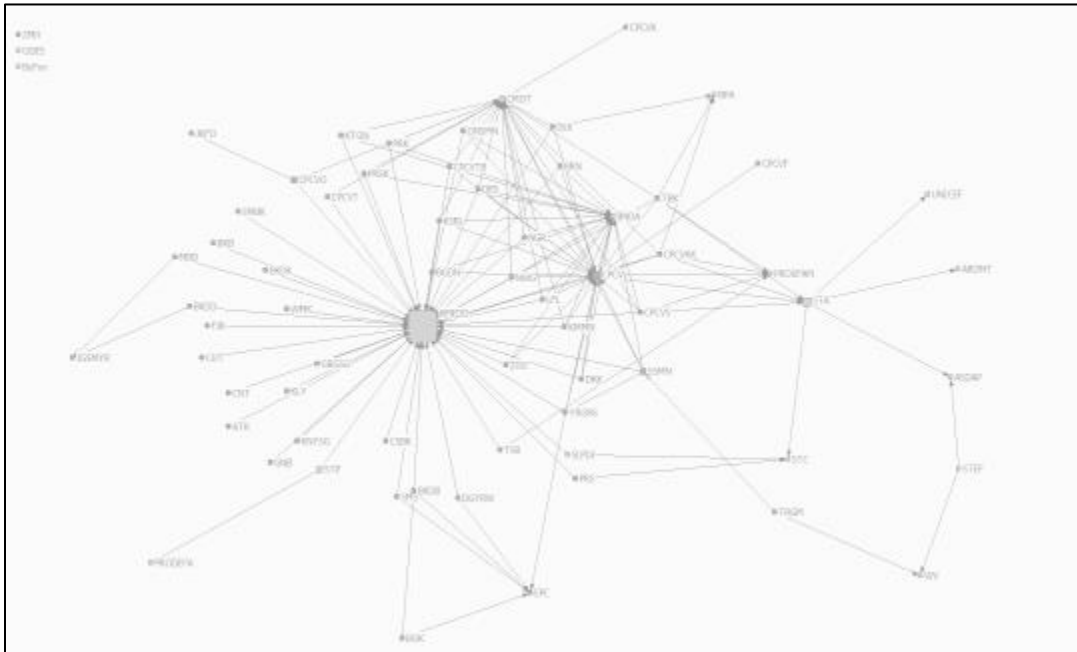


These include among others, Touba de Koumbia (TBK), Coopérative des producteurs de coton et vivrier Kagni de Koumbia (CPCVKK), Coopérative des producteurs de coton et vivrier Sende de Koumbia (CPCVS), Sisimena de Koumbia (SSMN), Coopérative des producteurs de coton et vivrier de Koumbia (CPCV), Djile de Koumbia (DLK), Barena de Koumbia (BRN), Onissamana de

Koumbia (ONSMN), Dorosso de Koumbia (DRS), Ngoro de Koumbia (NGR), Nawogo de Koumbia (NWG), Lafiala de Koumbia (LFL), Kamemeni de Koumbia (KMMN), Yeregnini Sinde de Koumbia (YRGNs), Kassarola de Koumbia (KSRL). In addition to the aforementioned actors Service technique d'agriculture (STA) is also identified as an influential actor in this Koumbia-based network.

Bonding actors Koumbia

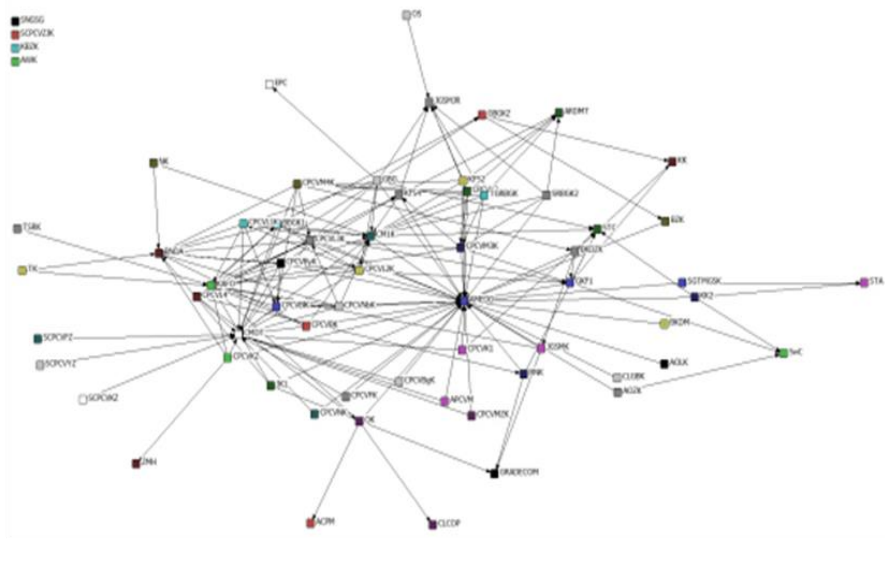
As in the Minamba-based network, AMEDD and in a lesser extent STA, CPCV and CMDT seem to play a bridging role in this network.



Kifosso case study

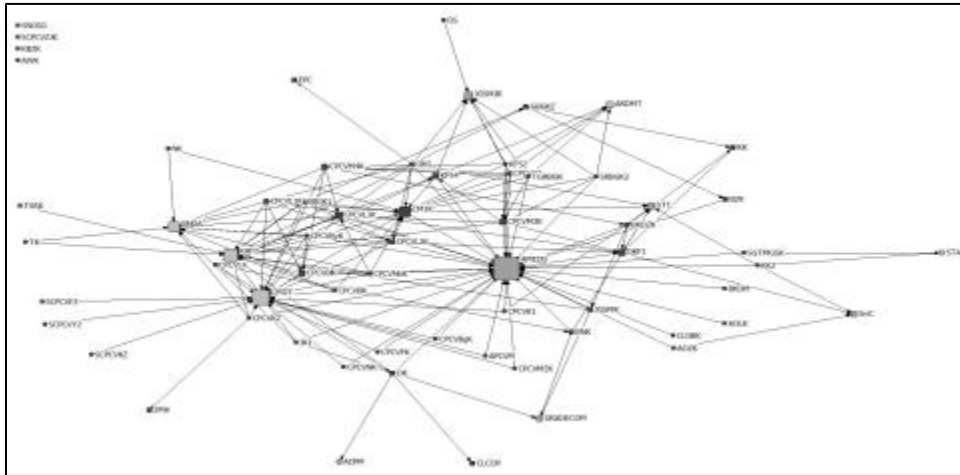
The Kifosso sub-watershed-based network looks quite similar with that of Koumbia with a cluster of actors tightly knit, highly bonded. However, the global connectivity of the network as predicated by the estimated network density is a bit low, indicating that there is a great potential to foster interactions and collaborations among critical actors.

The number of relations in the shortest possible walk from one actor to another in the network is on average equal to two as per observed by the geodesic distance estimate. This suggests that, the flow of information travel pretty quickly in Kifosso-based network.



Prominent actors Kifosso

Association malienne d'evenl et de developpement durable (AMEDD), Compagnie malienne du developpement des textiles (CMDT), Kafo jiginew (KAFO) and, to a lesser extent Banque nationale du developpement agricole (BNDA) are highly sought-after by other network members.

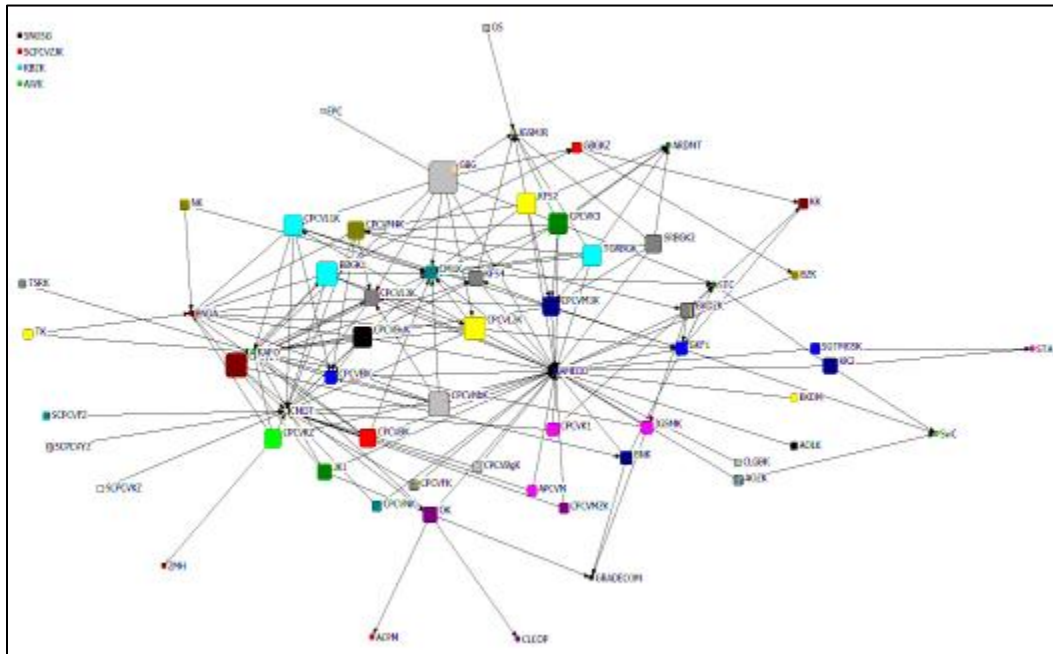


Influential actors Kifosso

The following stakeholders are characterized as most influential in Kifosso-based network:

- Gnebagnon (GBG);
- Coopérative des producteurs de coton et vivrier Kifosso 3 (CPCVK3);
- Coopérative des producteurs de coton et vivrier Benkadi de Kifosso (CPCVBK)
- Coopérative des producteurs de coton et vivrier Nabisso de Kifosso (CPCVNBK);
- Coopérative des producteurs de coton et vivrier Lopegue 2 de Kifosso (CPCVL2K);
- Kafo jiginew (KAFO);

- Coopérative des producteurs de coton et vivrier Makongo 4 de Kiffosso (CPCVM4K);
Coopérative des producteurs de coton et vivrier Lopegue 1 de Kiffosso (CPCVL1K);
Bakaribougou de Kiffosso 1 (BBGK1);
- Tangarabougou de Kiffosso (TGRBGK), and;
- Kiffosso 2 (KFS2).



Bonding actors Kiffosso

AMEDD and CMTD appear to be critical for the sustainability of the network.

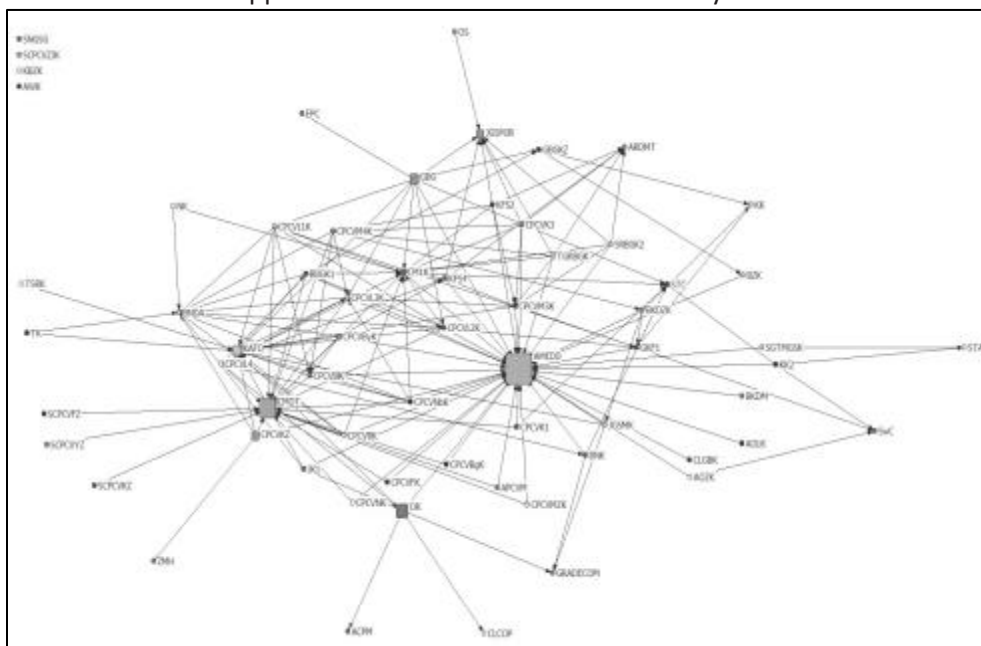


Table below summarizes key information characterizing each network in the selected sub-watershed of Mali.

	Minamba	Koumbia	Kiffoso
Total # of possible interactions	1,260	4,692	4,160
Actual # of interactions	68	137	166
Network density	5%	3%	4%
# of actors in the network	36	69	65
# of actors with at least one interaction	32	63	61
Inclusiveness	89%	91%	94%

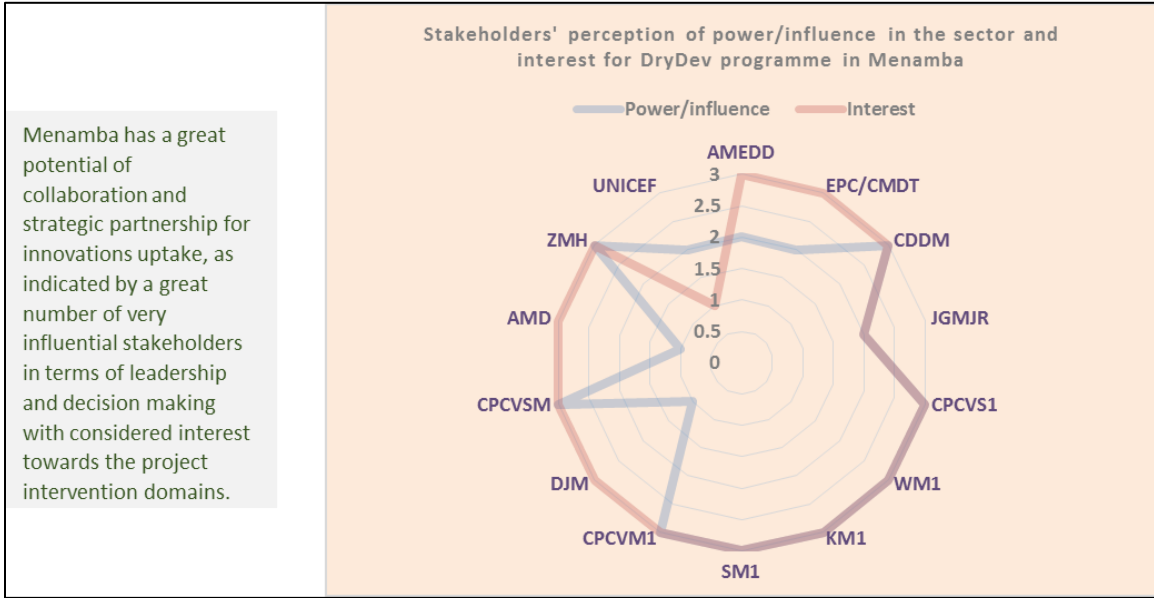
The following table also shows the summary results of the roles of stakeholders in the different sub-watershed based networks in Mali. These results will be important in understanding how to weave the related networks.

	Minamba	Koumbia	Kiffoso
Actors with a prominent role	AMEDD EPC/CMDT CDDM JGMJR	AMEDD CPCV CMDT BNDA	AMEDD CMDT KAFO BNDA
Actors with influential role	CDM CPCVS1 MNB3 MNB1 WM1 KM1 SM1 CPCVM1 DJM CPCVSM	TBK CPCVKK CPCVS SSMN CPCV DLK BRN ONSMN DRS NGR NWG LFL KMMN YRGNS KSRL STA	GBG CPCVK3 CPCVBK CPCVNNbK CPCVL2K KAFO CPCVM4K CPCVL1K BBGK1 TGRBGK KFS2
Network bonder actors	AMEDD CDDM CDM	AMEDD STA CPCV CMDT	AMEDD CMDT
Members not involved	GM AMD ZMH UNICEF	BoFon ODES ZMH	AWK KBZK SNGSG SCPCVZJK

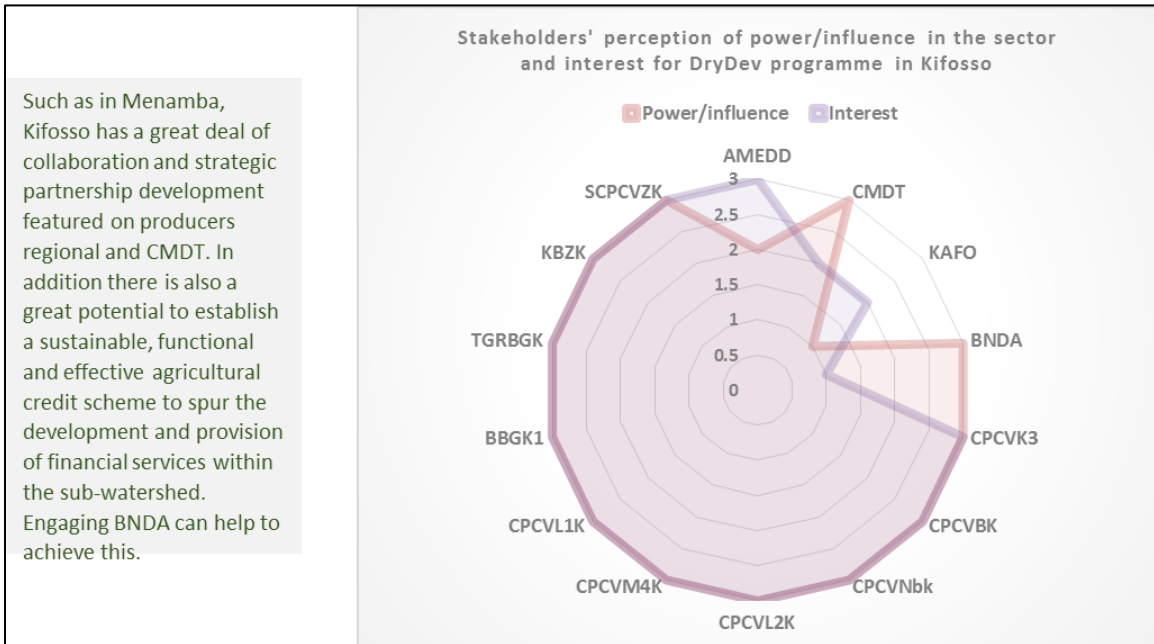
Example of Power analysis

Qualitative data were also collected to perceive the level of influence and interest of identified stakeholders as perceived by their counterparts in the sub-watersheds. Indeed, the level of power/influence of each actor was assessed according to their counterparts based on the roles they play or influence they have in making the sector or sub-sector work in one hand and, in another hand, the interests they have in interventions being deployed or implemented within the framework of a given project (here we considered the case of a programme called DRYDEV).

Menamba case study



Kifosso case study



Guideline for an effective and sustainable stakeholder engagement plan

Table: Stakeholder engagement template

Actor name	Goal, role, motivation	Position in the network	Level of influence	Level of interest	Potential role in the Project	Engagement strategy				
						Inform	Consult	Involve	Collaborate	Empower
			H	H		✓	✓	✓	✓	
			L	H		✓	✓	✓		✓
			H	L		✓	✓	✓		✓
			L	L		✓				✓

Case study with data collected in Mouina

Actors	Goal, role, motivation	Position in the network	Level of influence	Level of interest	Potential role in the DryDev	Engagement strategy				
						Inform	Consult	Involve	Collaborate	Empower
WV	Improve local livelihoods through development support and capacity building	Prominent	H	L	Capacity building, out scaling	✓	✓		✓	
YEREDON	Support local communities through capacity building and promotion networking and partnership	Prominent/influential	H	L	Sensitization, village-based training and extension	✓	✓	✓		
CMDT	Improve local livelihood through provision of innovations and technical advices	Prominent	H	H	Sensitization, networking and out scaling	✓	✓	✓	✓	
CCDSES	Support community development initiatives and promote inclusiveness	Prominent/influential	H	H	Advocacy and policy influencing	✓	✓	✓	✓	
UAPIA	Improve local livelihood through technical support and service provision	Prominent/influential/bonder	H	H	Capacity building and technology dissemination	✓	✓	✓	✓	
AMEPPE	Capacity building, sensitization and raise awareness for sustainable management of NR	Prominent	H	H	Implementing actor	✓	✓		✓	
SSAM/STA	Improve local livelihood through technical support and service provision	Prominent	L	H	Capacity building and technology dissemination	✓	✓			
CeZin	Improve local livelihoods through mutual support and collective actions	Influential	L	H	Sensitization, networking and extension	✓	✓			
Coop H	Improve local	Influential/bonder	L	H	Sensitization,	✓	✓			

	livelihoods through mutual support and collective actions				networking and extension					
CARITAS	Improve the livelihoods of vulnerable groups	Prominent	H	L	Training marginalized groups, scaling out	✓	✓		✓	
SODAC	Raise awareness and increase access to improved technologies	Prominent	H	L	Sensitization, training and out-scaling	✓	✓	✓		
TieZin	Raise awareness and promote the transmission of information faster, certain and accurate.	Non-involved	L	H	Ensure a smooth flow of information, promote knowledge sharing	✓	✓			

Case study with some data collected in Zondoma (Burkina Faso)

Actors	Goal, role, motivation	Position in the network	Level of influence	Level of interest	Potential role in the project	Engagement strategy				
						Inform	Consult	Involve	Collaborate	Empower
DPAAH	Improve local livelihoods through development support, capacity building and provision of services related to agriculture, water and food security	Prominent	H	H	Contribute with relevant expertise, provide access to critical networks and align in-country activities or initiatives with the partnership	✓	✓	✓	✓	
DPEEVC	Improve local livelihoods through development support, capacity building and provision of services related to environment, sustainable management of natural resources and forest regulation	Prominent/influential/bonder	H	H	Contribute with relevant expertise, provide access to critical networks and align in-country activities or initiatives with the partnership Convenes and facilitates discussions among multi-stakeholder groups, providing a neutral space for strategic dialogue	✓	✓	✓	✓	
DPRAH	Improve local livelihoods through capacity building and provision of services related to livestock, animal health and production	Prominent/influential	H	H	Contribute with relevant expertise, provide access to critical networks and align in-country activities or initiatives with the partnership	✓	✓	✓	✓	
HC	Local government authority, support local development initiatives	Prominent/influential/bonder	H	H	Policy and security supports	✓	✓	✓	✓	
PNT	Promote resilient-smart practices through adoption of climate-smart	Prominent	H	H	Sensitization, village-level trainings and technology dissemination	✓	✓	✓	✓	

	technologies and sustainable use and management of natural resources									
AMR	Improve livelihoods through development support, collective actions and capacity building, social cohesion and trust	Prominent/influential	L	H	Contribute relevant expertise,	✓	✓	•		
GTB	Strengthen the capacity of local communities, facilitate linkages, networking and access to improved technologies	Prominent/influential	L	H	Sensitization and mobilization, community-based trainings, out-scaling and networking	✓	✓	✓	•	
MaBa	Local civil council, support local community-based development initiatives for improved livelihoods	Influential/bonder	L	H	Policy and security supports, provision of enabling working environment and facilities	✓	✓			
MaBo	Local civil council, support local community-based development initiatives for improved livelihoods	Influential/bonder	H	H	Policy and security supports, provision of enabling working environment and facilities	✓	✓	✓	✓	
CVDS	Promote economic and cultural development through collectives actions, coordination and leadership	Influential	H	H	Community mobilization, collectively lead the effort to launch a new partnership, including engaging personal networks, defining the vision and establishing partnership strategies and structures	✓	✓	✓	✓	

AFG	Improve local livelihoods through engendered mutual support and collective actions	Not-involved	L	H	Community mobilization and dissemination of technologies towards women targeted beneficiaries	✓	✓		✓	✓
ASCEDIS	Support community development initiatives through collective actions, capacity building and development	Not-involved	L	H	Sensitization, community mobilization and out scaling	✓	✓		✓	✓
SNV	Improve livelihoods through the promotion of regional and local development initiatives, capacity building and development	Not-involved	L	H	Implementing partner				•	
TreeAID	Improve sustainable use of natural resources livelihoods through the promotion of regional and local development initiatives, capacity building and development, policy dialogue etc..	Not-involved	L	H	Implementing partner				•	
ZATE	Improve local livelihoods through development support, capacity building and provision of services related to agro-pastoralism	Not-involved	H	H	Contribute with relevant expertise, provide access to improved innovations in relation with livestock production and husbandry	✓	✓	✓	✓	
FIE	Improve access to financial services	Not-involved	H	H	Organize and link farmers to financial services	✓	✓	✓	✓	

SEMUS	Development support through capacity building, innovations brokering and institutional support	Not-involved	H	H	Convenes and facilitates discussions among multi-stakeholder groups, providing a neutral space for strategic dialogue. Out-scaling of technologies	✓	✓	✓	✓	
Le Nord	Raise awareness and promote the transmission of information faster, certain and accurate.	Not-involved	L	H	Ensure a smooth flow of information, promote and facilitate knowledge sharing and communication	✓	✓	•	✓	

Monitoring and evaluation of identified networks

Monitoring and evaluating networks in a development project can help to track research deliverables on the process and method as well as the changes in stakeholder networks over time. Emphasis on monitoring and evaluation of identified networks should be put on two areas: 1) the changing structure of the networks and 2) the changing roles of actors' members in a given network.

This entails establishing a baseline as a beginning reference point and then according to funds availability periodic mapping of the network to monitor its potential transformation.

The tables below show measures of networks structures as well as roles of network members that can be monitored over time and evaluated for change.

For the network structure, the two measures relate on: 1) the network density and 2) inclusiveness.

Baseline networks structure in the selected areas

Measures	MENAMBA		KOUMBIA		KIFOSSO	
	BL	FUP	BL	FUP	BL	FUP
Network density	5%		3%		4%	
Inclusiveness	89%		91%		94%	

*Baseline; **Follow up

In the same way, four measures can be monitored over time and evaluated for change in roles play by network actors: 1) who are the members not involved in a given network? 2) Who are the most prominent? Who are the most influential? Who are network bonders?

Baseline assessment of the roles play by network members in the selected areas

	MENAMBA		KOUMBIA		KIFOSSO	
	Baseline	Follow up	Baseline	Follow up	Baseline	Follow up
Actors with a prominent role	AMEDD EPC/CMDT CDDM JGMJR		AMEDD CPCV CMDT BNDA		AMEDD CMDT KAFO BNDA	
Actors with influential role	CDM CPCVS1 MNB3 MNB1 WM1 KM1 SM1 CPCVM1 DJM CPCVSM		TBK CPCVKK CPCVS SSMN CPCV DLK BRN ONSMN DRS NGR NWG LFL KMMN YRGNS KSRL STA		GBG CPCVK3 CPCVBK CPCVNNb K CPCVL2K KAFO CPCVM4K CPCVL1K BBGK1 TGRBGK KFS2	
Network bonder actors	AMEDD CDDM		AMEDD STA		AMEDD CMDT	

	CDM		CPCV CMDT			
Members not involved	GM AMD ZMH UNICEF		BoFon ODES ZMH		AWK KBZK SNGSG SCPCVZJK	

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Liste des organisations identifiées à Menamba

Code	Acronymes	Labels
1	CGAS	Comite de gestion de l'assainissement Siela
2	BM2	Benkadi de Menamba 2
3	BD	Benkadi Direworodo
4	BMNB	Benkadi de Menamba
5	DeM	Denbaniumaje de Menamba
6	BaM	Badenya de Menamba
7	CD	Comite de l'eau de Diokuna
8	CPCVS1	Société coopérative des producteurs de coton et vivrier Siela 1 de Menamba 1
9	DjM	Djounkouna de Menamba
10	CDDM	Cooperative Djiguitougou de Dioncouna Menamba 1
11	GM	Gnetaga de Menamba
12	CDM	Cooperative Debadjee de Menamba 1
13	CS	Comite de gestion de Siela
14	CPCVSM	Société coopérative des producteurs de coton et vivrier Siela 2 de Menamba 1
15	BaM2	Baworodo de Menamba 2
16	CEM1	Comite de l'eau de Menamba 1
17	M2A	Menamba 2 A
18	MNB1	Menamba 1
19	MNB3	Menamba 3
20	DiM	Diassa de Menamba
21	CPCVM1	Société coopérative des producteurs de coton et vivrier de Menamba 1
22	KM1	Kokounta de Menamba 1
23	M2B	Menamba 2 B
24	SM1	Sanworodo de Menamba 1
25	WM1	Weleromado de Menamba 1
26	AMD	Association des femmes Manbè de Dionkouna
27	STC	Save the children
28	UNICEF	UNICEF
29	JGMJR	Jigisèmèjiri
30	AMEDD	Association malienne d'aveil et de developpement durable
31	ZMH	Zamoho
32	FIER	FIER
33	EPC	EPC/CMDT
34	ARDMT	Arrondissement
35	KAFO	Kafo jiginew
36	BNDA	Banque nationale du developpement agricole

Liste des organisations identifiées à Koumbia

	Acronymes	Labels
1	CPCV	Coopérative des producteurs de coton et vivrier de Koumbia
2	NWG	Nawogo de Koumbia
3	DGYRW	Duguyiriwa de Koumbia
4	KMMN	Kamemeni de Koumbia
5	SMS	Sigiti mogo son de Koumbia
6	CPCVK	Société coopérative des producteurs de coton et vivrier Kanfoungo de Tebere
7	CUT	Cooperative Uyetie de Tebere
8	CNT	Cooperative Nietaa de Tebere
9	TSR	Tiessiri de Koumbia
10	CPCVF	Coopérative des producteurs de coton et vivrier Fougouala de Koumbia
11	YRGNS	Yeregnini Sinda de Koumbia
12	GNB	Gnounbasingue Nongdo du Barena de Koumbia
13	ATK	Association Tiere de Koumbia
14	PRS	Parissi de Koumbia
15	CSBK	Comite du sous bassin de Koumbia
16	DRS	Dorosso de Koumbia
17	KTGN	Katigniona de Koumbia
18	PRK	Piri de Koumbia
19	LFL	Lafiala de Koumbia
20	ONSMN	Onissamana de Koumbia
21	KSRL	Kassorola de Koumbia
22	NGR	Ngoro de Koumbia
23	BRN	Barena de Koumbia
24	SMBK	Sigite mogoson Barena de Koumbia
25	BKB	Benkan Barena de Koumbia
26	CPCVTB	Coopérative des producteurs de coton et vivrier Tifekafo Barakake de Koumbia
27	BOK	Benkadi Ouyasso de Koumbia
28	CPCVO	Coopérative des producteurs de coton et vivrier Ouyasso de Koumbia
29	DKK	Djekake de Koumbia
30	PRSK	Parisin de Koumbia
31	CPCVT	Société coopérative des producteurs de coton et vivrier Tebere de Tebere
32	MBD	Mambe de Dionkouna
33	BKDD	Benkady de Dionkouna
34	SSMN	Sisimena de Koumbia
35	TBK	Touba de Koumbia
36	TRGM	Tirignime de Koumbia
37	CPCVS	Coopérative des producteurs de coton et vivrier Sende de Koumbia
38	CPCVKK	Coopérative des producteurs de coton et vivrier Kagni de Koumbia
39	DLK	Djile de Koumbia
40	FJK	Faso Jigi de Koumbia
41	BKDK	Bekadi de Koumbia

42	WMK	Wasso Magni de Koumbia
43	ZGG	Zangagnie de Koumbia
44	KLY	Koulouya de Koumbia
45	GBGSG	Gnoubangasigue de Koumbia
46	KNYSG	Keneyasigi de Koumbia
47	BGDN	Bagadina de Koumbia
48	BKDB	Benkadi de Bagadina
49	ARDMT	Arrondissement
50	EPC	EPC
51	AMEDD	Association malienne d'evenil et de developpement durable
52	ZMH	Zamoho
53	ODES	ODES
54	STC	Save the children
55	CMDT	Compagnie malienne du developpement des textiles
56	BPA	BPA
57	STA	Service technique d'agriculture
58	BoFon	Borne Fonden
59	BNDA	Banque nationale du developpement agricole
60	STP	Service technique de la peche
61	STEF	Service technique des eaux et forets
62	SLPIA	Service local de la production et industrie animale
63	WV	World Vision
64	ASDAP	ASDAP
65	PRODEFA	PRODEFA
66	UNICEF	UNICEF
67	JKFO	Jekafo Ouyaso
68	JGSMYR	Jigisemeyiri

Liste des organisations identifiees a Kifosso

Code	Acronymes	Labels
1	GBG	Gnebagnon
2	SNGSG	Sinignessigui
3	BKDM	Benkadi de Makongo
4	KFS4	Kifosso 4
5	CPCVK3	Coopérative des producteurs de coton et vivrier Kifosso 3
6	TGRBGK	Tangarabougou de Kifosso
7	KFS2	Kifosso 2
8	SRBGK2	Sirakorobougou de Kifosso 2
9	CPCVBK	Coopérative des producteurs de coton et vivrier Benkadi de Kifosso
10	CM1K	Cooperative Makongo 1 de Kifosso
11	BZK	Benkadi Zagouso de Kifosso
12	SCPCVZJK	Société coopérative des producteurs de coton et vivrier Zeleko Jekafo de Kifosso
13	SCPCVYZ	Société coopérative des producteurs de coton et vivrier Yenizebougou de Zangasso
14	SGTMGSK	Sigitemogoson de Kifosso
15	AOZK	Association Ouyetio de Zangouso Kifosso

16	CPCVNK	Coopérative des producteurs de coton et vivrier Nenesso de Kiffosso
17	CPCVBIK	Coopérative des producteurs de coton et vivrier Blala de Kiffosso
18	GBGKZ	Gnoubagnon de Kifosso Zangoussou
19	CPCVM3K	Coopérative des producteurs de coton et vivrier Makoungo 3 de Kiffosso
20	AOLK	Association Ouyetio de Lopegue Kiffosso
21	CLGBK	Comite locale de gestion du sous bassin de Kiffosso
22	BBGK1	Bakaribougou de Kiffosso 1
23	CPCVL3K	Coopérative des producteurs de coton et vivrier Lopegue 3 de Kiffosso
24	CPCVNbK	Coopérative des producteurs de coton et vivrier Nabisso de Kiffosso
25	CPCVKZ	Coopérative des producteurs de coton et vivrier Kalifabougou de Zangoussou
26	CPCVMZK	Coopérative des producteurs de coton et vivrier Moribila de Zangoussou Kiffosso
27	SCPCVKZ	Société coopérative des producteurs de coton et vivrier Koni de Zangoussou
28	SCPCVFZ	Société coopérative des producteurs de coton et vivrier Faraka de Zangoussou
29	CPCVFK	Coopérative des producteurs de coton et vivrier Fowola de Kiffosso
30	CPCVK1	Coopérative des producteurs de coton et vivrier Kiffosso 1 de Kiffosso
31	BNK	Benkadi Niokondeme de Kiffosso
32	KK	Kiku de Kiffosso
33	CPCVL2K	Coopérative des producteurs de coton et vivrier Lopegue 2 de Kiffosso
34	JGSMK	Jigiseme de Kiffosso
35	NK	Navomo de Kiffosso
36	KK2	Kamya de Kiffosso 2
37	KBZK	Kagouala Benkan de Zangoussou Kiffosso
38	TK	Tiessiri de Kiffosso
39	CPCVM4K	Coopérative des producteurs de coton et vivrier Makoungo 4 de Kiffosso
40	OK	Ouyeyaa de Kiffosso
41	CPCVL1K	Coopérative des producteurs de coton et vivrier Lopegue 1 de Kiffosso
42	JK1	Jekabara de Kiffosso 1
43	CPCVByK	Coopérative des producteurs de coton et vivrier Badenya de Kiffosso
44	GKF1	Gnupangagnon de Makoungo Kiffosso 1
45	APCVM	APCV de Makoungo
46	CPCVBgK	Coopérative des producteurs de coton et vivrier Bangona de Kiffosso
47	TSRK	Tiessiriton de Kiffosso
48	OS	Opredougou de Sangoussou
49	BKDZK	Benkadi Zangounso de Kiffosso
50	CPCVL4	Coopérative des producteurs de coton et vivrier Lopegue 4
51	AWK	Association Wuyegnon de Kiffosso
52	AMEDD	Association malienne d'aveil et de developpement durable

53	ZMH	Zamoho
54	JGSMJR	Jigisemejiri
55	ARDMT	Arrondissement
56	EPC	EPC
57	STC	Save the children
58	KAFO	Kafo jiginew
59	CMDT	Compagnie malienne du developpement des textiles
60	BNDA	Banque nationale du developpement agricole
61	STA	Service technique d'agriculture
62	SwC	Swiss Contact
63	GRADECOM	GRADECOM
64	ACPM	Association des planteurs maraichers
65	CLCOP	Cadre local de coordination des organisations paysannes