



Strengthening

Agribusiness Ethics,

Quality Standards,

& ICT Usage in

Uganda's Value Chains

AGRI-QUEST

POLICY BRIEF SERIES

Policy Brief No. 8-2017:

Networking in the informal agricultural industry in Uganda: How to foster the implementation of networking among farmers

Authors:

Sophia Stahn, Christopher Wickert, David Katamba, Catherine Tindiwensi & Andrew Seruma

AGRI-QUEST Policy Brief Series provide state-of-the-art analyses and policy recommendations on topics related to ethics, quality standards, sustainability, and Corporate Social Responsibility (CSR) in agriculture in the context of Uganda. They are part of the broader AGRI-QUEST research project funded by The Netherlands Organisation for Scientific Research (NWO-WOTRO).

For more AGRI-QUEST details, contact:

David Katamba,

AGRI-QUEST Lead Researcher

Website: www.agriquestuganda.com

Email: info@agriquestuganda.com

Tel: +256 774972532; +256 752794612

A project mainly financed by:



Implemented by:



Networking in the informal agricultural industry in Uganda: How to foster the implementation of networking among farmers

Executive Summary

This policy brief analyses the data collected during a research project in collaboration with AgriQuest Uganda in April 2017. It investigates the implementation of the notion of networks in the context of farmers' groups in the informal agricultural economy of Uganda. Drawing on the theoretical approaches of network theory and social capital, the main attributes of network models, namely network structure, trust, exchange of knowledge and information, exchange of tangible resources and equality are discussed. From that, a model for a successful implementation of the network notion is derived and gets applied to the cases of two farmers' groups located in the districts of Bugiri and Oyam. Thereby real-life examples of how agricultural players in one of the least developed countries in the world are translating the basic ideas of networks into practice are described. The main findings show that the general comprehension for the set up and benefits of networks is present, yet especially the mindset of farmers, their unawareness for economic benefits and their living circumstances hinder them from efficiently applying the idea of networks to their business realities. In this way, this analysis makes a contribution to existing practical, relevant literature through offering a simple, data-based guideline for players in informal parts of agricultural sectors.

Keywords: Networks, Informal Economy, Agriculture, Developing Country, Network Model, Uganda

Introduction

Group affiliation is a major part of human existence (Bernhard, Fehr & Fischbacher, 2006). It is steered by norms and value that are introduced by one or more social groups that also control the compliance of those norms. If individuals do not adhere to the rule of a group, they will not be part of it. Simultaneously this shows that group affiliation considerably shapes and guides the behavior of individuals (Bernhard et al., 2006). Next to psychological areas of research also business-related research has been done in this field. Business networks are not only seen as source for internal behavioral guidelines but also as a reaction to market imperfections (Gössling, 2004). In the context of developing countries, this theory is especially interesting since economic players face a variety of barriers to their competitive advantage stemming from imperfections in for instance the labor or capital market (Swinnen & Maerten, 2007) and hence make use of networks to overcome those barriers.

In the informal agricultural economy of Uganda, the idea of joining forces and thus achieving better and more output is prevalent. So-called farmer's networks are an interpretation of social and economic groups that intend to give access to resources, markets and knowledge (Eastern and Southern Africa Small Scale Farmers Forum, n.d.). Especially small-scale farmers engage in these kinds of networks since their individual means for doing agriculture are limited. Hence, groups do not only impact the behavior of

A project mainly financed by:



Implemented by:



individuals but also serve as a solution to a lack of economic prerequisites. Yet, in order to be able to make use of these benefits, individuals need to develop social capital. This concept is a major part of network theory and hence represents the platform of any network engagement (Coleman, 1988). In a nutshell, the social capital approach describes the position, ties and linkages of an individual within a network. The characteristics of trust between individuals in one network shapes the strength of their relation and eventually also their interactions (Coleman, 1988). Social capital furthermore in particular impacts the exchange and transfer of knowledge. These network specific attributes, based on the theory of social capital, are the root of farmers' groups in Uganda and bring considerable benefits to small-scale farmers when implemented correctly and adjusted to the respective environment.

Hence, this policy brief intends to investigate how networks in the context of farmers' groups in the informal agricultural economy of Uganda, implement the network model. Therefore, the cases of two farmers' networks, namely five farmers' group (5FG) in Bugiri and Adyegi Women Health Network (A.W.H.N.) in Oyam are introduced and analyzed according to the theoretically established model of networks. This leads to the following research question:

How do the farmers' groups in the informal economy of agriculture in Uganda apply the theory of network models to their business environment?

In order to answer the research question, it is drawn on two interviews conducted with farmers' groups in the course of a field trip to Uganda in April 2017. With the

help of this qualitative data set, the main rationales for founding a network and key approaches to implement networks should be examined in order to gain insights into to the actual implementation, barriers and best practices. The findings should serve as a simple template for institutions and farmers on how to implement the theoretical notion of networks into their business realities.

The main findings of this policy brief show that the awareness for benefits of networks does indeed exist. In the case of 5FG and A.W.H.N. farmers founded networks with the objective to achieve those benefits. Yet, the implementation oftentimes represents a major barrier leading to the fact that network advantages such as exchange of resources cannot be accessed. In addition to that, it could be observed that the mindset of farmers as well as the general awareness for economic benefits of agriculture were oftentimes not existing. This further increases the difficulty of realizing and establishing networks. Yet, both case studies helped identifying some good and bad practices in the course of network establishment that can serve as a guideline for future networks in this context.

The policy brief commences with a discussion of current literature about networks and its rationales. From that, a network model gets developed that compromises the key aspects of network formation and setup. Since this analysis is done in the context of an informal economy, the main aspects that might impact networks in this setting are briefly listed. Afterwards the methodology behind this policy brief is introduced. Next, two cases of farmers' groups are introduced and analyzed according to the beforehand

developed network model. Finally, the results of the analysis are discussed and compared. In that way recommendations about further improvements regarding the implementation and also regarding focus of external support mechanisms can be made. The policy brief concludes with a conclusion and brief outlook for future research and key limitations of this analysis.

Conceptual Background

A considerable number of scholars have committed their research to the design of networks. Especially network structures, network benefits like exchanging tangible and intangible resources and gender equality and social determinants like trust relationships in networks are discussed. The following chapter presents the key network functions and attributes that shape the nature and merits of networks according to recent literature.

Network Structure

Network hierarchies are of rather functionalistic nature in the sense that there exists a very flat or no hierarchy with one or more central positions at most that guide and control the network (Diefenbach & Sillince, 2011). As members are structured according to functional necessities, there are different groups that engage in different functional tasks which are supervised by selected superior members. Yet, most actions and processes are fulfilled in an independent way, implying a rather decentralized structure that is based on equality. Lacking hierarchy is hence substituted through strong relationships that are based on trust (Diefenbach & Sillince, 2011). Therefore, the degree of formality in network hierarchies is very low and more aligned to

and shaped by the actual operative work of their members.

Podolny and Page (1998, p. 59) define networks as “as any collection of actors ($N > 2$) that pursue repeated, enduring exchange relations with one another and, at the same time, lack a legitimate organizational authority to arbitrate and resolve disputes that may arise during the exchange”, hence implying that there does not exist any kind of control or governance body in networks. At the same time, they also assume that networks are short-term oriented organizational forms that end after the transaction between network members has stopped. A further noticeable approach by Schmitz and Humphrey (2000) emphasizes the aspect of power equality amongst members of a network. Networks therefore are a governance form based on a non-hierarchical system of actors exchanging resources but still obtaining equal power levels. In addition to that, literature suggests that dynamic network structures are more efficient and beneficial than static systems (Huggins, 2010). Since the nature of networks implies that members are not only benefitting from direct but also indirect linkages, it is especially important to emphasize the dynamics of networks and diversity of members. A heterogenic setup of beliefs and mindsets increases the innovative strength and learning capabilities of network members. Besides, a broader pool of tangible and intangible resources can be accessed. Still, the existence of strong direct linkages that are based on long-term relationships must not be underappreciated since exploitation of existing capabilities is also key to network success (Ahuja, 2000b).

From this it can be concluded that networks are an organizational form that

excels through an almost non-hierarchical setup. Yet, there are still some supervision organs within the network which at least keep track of the proceedings and development of the network but do not actively control it. Nevertheless, the focus is on operative tasks and functionality. Flat or non-existing hierarchies furthermore foster the evolvement of a diverse and dynamic set of linkages within the network which positively impacts the benefits for members.

Trust

Trust amongst network members is playing a crucial role when looking at the rather informal structure of networks. The exchange of resources is depending on the level of trust between network members (Inkpen & Tsang, 2005). This implies that informal factors like trust determine the success of networks. Since networks are usually a non-hierarchical organization form without any specific formal rules and regulations, trust is the determinant for any kind of transactions. Naturally, the longer economic actors are part of mutual beneficial relationships that encompass regular transactions of assets or facilitate market access, the higher the degree of trust is and the stronger the relationship gets (Inkpen & Tsang, 2005). Moreover, a long beneficial relationship signals a certain level of common interest and state of knowledge, making the transactions even more simple (Inkpen & Tsang, 2005) and leading to lower transaction costs (Gulati, 1995). Therefore, the life cycle of networks is defined by smaller exchanges in the beginning that intend to test the trustworthiness of the partner and eventually develops into more elaborate and valuable transfers of assets in the best case.

Based on the assumption that networks are systems with no hierarchies or very flat hierarchies and therefore lack a certain degree of governance and control mechanisms, it can be suggested that trust is seen as a substitute to these missing hierarchical structures. The degree of trust hence decides about the existence or intensity of network transactions.

Exchange of Information and Knowledge

The exchange, transfer of and access to knowledge is seen as the key rationale to enter networks (Grant, 1996; Huggins, 2010). Inter-organizational learning encompasses group as well as individual learning that is taking place in organizational systems such as companies or networks (Knight & Pye, 2005). From that, Knight and Pye (2005) derived the idea of network learning which describes learning as a group and in a group. They see network learning as a process that occurs naturally rather than a means to an end. In a nutshell network learning is about the exchange of information and knowledge which is again considerably influenced by the degree of trust that exists between network members. The transfer of such intangible assets becomes easier when the emitter and the recipient of the information have a trust-based relationship that decreases the likelihood of opportunistic behavior (Podolny & Page, 1998; Inkpen & Tsang, 2005). In reality, the exchange of knowledge is usually mutual, meaning that receiving knowledge from one network member is connected with the release of knowledge from another network member. Like that the meaning of the term knowledge exchange is preserved and it is guaranteed that both parties benefit from the transaction (Huggins, 2010).

The exchange of knowledge is simultaneously related to learning, hence suggesting that networks offer learning benefits to their members (Podolny & Page, 1998). Due to the fact that networks lack hierarchies, the level of diversity of ideas is bigger. Moreover, the above-mentioned notion of trust in networks further enhances learning benefits since it is easier to adopt newly learned information if emitter and recipient trust each other.

Exchange of Tangible Resources

Another key reason why economic actors engage in the formation of network is the access to tangible resources (Ahuja, 2000a; Hanson & Blake, 2009; Inkpen & Tsang, 2005). Thye, Lawler and Yoon (2011) consider the exchange of resources as a prerequisite of network formation next to perceiving network belongingness. In fact, Thye et al. (2011) argue that the degree of group affiliation is depending on the degree of resource exchange within the network – the more resource exchange is happening the higher the degree of group affiliation. In networks, resource exchange means that there exists a common pool of assets to which every member has unrestricted access (Thye et al., 2011). Exchanging resources is also a tool to limit one's resource dependence (Podolny & Page, 1998). Actors in networks can strengthen their relationships with relevant members they trust and hence decrease their dependence on external resource suppliers. Moreover, the more network members rely on the resources provided by the network and exploit their opportunities, the more stable the network will become (Huggins, 2010). In conclusion with the above described network structure and the call of Huggins

(2010) to create stability in networks, this means that ties to actors operating outside the network will lead to imbalanced networks.

Equality

As stated, equality within networks depends on power relations and hierarchical structures. Yet, also gender is playing a crucial role. In particular as networks are originating from social relations between individuals, gender is inevitably emphasized as well. A study by Ridgeway and Smith-Lovin (1999) detected that gender differences are still a predominant component of human interactions. Here, men still obtain the position of the more powerful gender that achieve higher positions in economic environments (Hanna & Blake, 2005). In this context, Hanson and Blake (2005, p. 138) argue that

“If a person is not seen as a legitimate member of a network or if she has not built up trust within network relationships, she will not be valued by other network members and will find little value in network membership. Importantly, trust and legitimacy are closely intertwined with gender and other dimensions of social identity.”

This again emphasizes the strong role of trust within networks. In addition to that, it suggests that also gender differences can lead to trust issues that will make it impossible for men or women to become part of a network in the first place and furthermore will make it unattractive to be a member. If women and men had equal rights, they would engage in similar interaction models due to the same level of legitimacy of both genders (Ridgeway & Smith-Loving, 1999). Moreover, the equal

incorporation of both genders widens the horizon of a network through including a broader scope of beliefs, norms and mindsets. As already stated, diversity is essential to innovation and learning and eventually also to the success of economic actors and networks.

This suggests, that in order for women to become part of networks and in order for them to benefit from potential network benefits, it is crucial to create equality (Hanson & Blake, 2005). Subsequently, generating trust between genders in networks is pivotal for the incorporation of women and eventually for gender equality. Finally, the incorporation of women and treating women and men equally is determining the success of networks and hence also to the individual success of economic actors and should therefore be a compelling aspect of networks.

Networks in informal environments

The context of informal networks constitutes a special case for the establishment of networks. Informal economies describe the situation in which individuals are engaged in informal, unorganized activities that are not reported to the cross domestic product of a country (Smith, 1994) and hence cannot be controlled by the government. There exist two types of informal activities according to Harris-White (2010): first, unreported self-employment in unregistered companies and second, unreported labor in registered companies. Especially developing countries are shaped by a big part of their economy being informal (Harris-White, 2010). Here, informal economies in particular arise around producing in small scales only and the need of surviving and feeding the family. The financial situation of individuals in

developing countries is oftentimes so severe that they do not have any other chance but engaging in informal and sometimes even illegal activities.

In the context of the establishment of networks this means that individuals do not always understand the advantages or even necessity of joining their forces with others. Feeding their families is seen as priority one, leaving no space for the appreciation of economic benefits of networks. Subsequently, educating individuals in developing countries and like that making them aware of the potentials of their businesses in networks is crucial for network building. In the context of the above-mentioned factors of network models this means that most notably attributes like high degree of trust, equality, informal hierarchies and a reliable, clear and fair exchange resources and knowledge and information is essential to convince actors from forming or becoming part of a network.

Research Method

This policy brief is based on a descriptive analysis of qualitative data collected during a three weeks field trip to Uganda in April 2017. In order to be able to assess how farmers' groups in Uganda implement the idea of networks, it was crucial to acquire information that go beyond the mere numerical results of quantitative analysis. Moreover, since question about trust relationships and equality and fairness touched rather sensitive topics, the framing of the questions determined the respondents' willingness to answer freely and openly. Finally, context information in the form of observation notes about for instance living circumstances or respondent's behaviors considerably contributed to the analysis

A project mainly financed by:



Implemented by:



and findings.

The data set constitutes of two case studies in the forms of interviews. In addition to that, observation notes made during the interviews serve as supplementary data that should increase the depth of information and give a clearer image of the policy brief's context.

The general context of this analysis plays in the informal economy of agriculture in the East African country Uganda. Uganda employs around 72 % of its employable citizens in the agricultural sectors (The World Bank, 2013). The history of the Ugandan agricultural sector shows that the notion of networks has existed for a long time already and was significantly supported by the government until the late 1990s. After some major restructuring of the agricultural sector and a reallocation of subsidies which notably harmed the agriculture in Uganda, today several institutions including the government are again fostering this sector (Afraana Kwapong & Lubega Korugyendo, 2010). Besides, networks between farmers have gained popularity. Agricultural cooperatives were a popular type of network even before the liberalization of the agricultural markets in the 1990s. Yet, in the course of the political and institutional reversal, cooperatives underwent major transformations. The hierarchical setup with producers at the very bottom of the pyramid was restructured towards a more open and horizontal layout. At the same time, the agricultural unions collapsed due to the increasing degree of competition from traders from outside that were now allowed to enter the market. Despite the downfall of the unions, institutions such as the Ugandan Cooperative Alliance (UCA) further advertised the advantages of

cooperative membership to farmers (Afraana Kwapong & Lubega Korugyendo, 2010).

Against this background, the data collection took place between April 3-20 2017. The focus was set on two value chains, namely rice and cassava. The interview outline consisted of various questions that addressed topics like benefits of and reasons for forming networks, existing barriers and ethical and unethical practices. From the data collected, two examples were chosen to constitute this analysis. Both case studies show positive as well as negative examples of network implementation in the informal agricultural sector of Uganda. The descriptive analysis therefore focuses on the direct statements of interviewees as well as on observations made during the interviews. Like that, a descriptive demonstration of real-life examples can be made.

Case Analysis

Case Study 1: Network of five Farmers' Group – Bugiri Interview

The network 5FG consists of five farmers' group and is situated in the Eastern part of Uganda, in the district of Bugiri. Up to the date the interview was conducted, the network did not have an official name. The individual farmers' groups mainly grow rice. The work of preparing land, planting, harvesting and processing is done individually. Members stated that the main aim of getting together and forming this network was to get access to better machinery and engage in joint marketing.

5FG has developed a sophisticated financing and saving system that allows the network to manage minor financial

A project mainly financed by:



Implemented by:



matters independently from external loan associations. Through obliging every member that is joining the network to pay 10,000 UGX in five installments, 5FG makes sure that everyone contributes to the network. Whenever a certain amount of money is saved up or whenever a member needs financial support, the money gets split up equally to everyone or get distributed to the respective farmers' group in need. It is up to the recipient where and how to invest the money. The saving box that contains the money from all members is kept safe by one women of the network. The box has three locks with three individual keys to them. Each key is stored by a different member of the network. Like that 5FG prevents the abuse of the collectively saved money or the access of unauthorized people. Only if all four members involved in the safe keeping of the box and keys come together, the box can be opened. In addition to that, a small booklet gives overview over the installment payment of the members. In that way 5FG captures payments in an official way and ensures that every member pays their share. Only if the installments are payed, members can profit from for instance machinery 5FG owns. Nevertheless, it was stated that 5FG is still lacking major means to design their agricultural processes more efficiently. Amongst others post-harvesting tools and fertilizers were mentioned.

5FG is organized through a precise allocation of task. There are two chairpersons, one woman and one man, as well as several key keepers. Hence the network developed some type of organizational structure in order to manage the collaboration between the different farmers' groups and ensure stability and safety regarding the financing and saving system.

Besides, 5FG has received trainings and education ever since the farmers' groups joined their forces and founded their network. They can now engage in more ethical and economically profitable practices as they got trained in how to spread seeds or dry the rice so that the quality of the end good improves and the input decreases. As stated by members of 5FG they were not aware of those practices before joining the network and receiving training from institutions.



Illustration 1: *Members of the 5FG network and their network saving box.*

All in all, 5FG reported that members and even their families benefit from joining the network. Men now can pay the tuition fees of their children and buy nutritious food for their families. Children furthermore gain from receiving important medicine. Yet, the advantages for women are limited to the statement that women are now happier because their husbands are happier. Members furthermore told that unfailingly women are responsible for the field work while men are only involved in business related areas such as selling the crops.

Observations

During the interview with 5FG it was observed that the saving box and the key keepers and safe holder of the box seem

to be an important topic within the network. Many members wanted to contribute their opinion and further statements regarding the box. The rationale of the existence of three keys was emphasized many times throughout the interview.

In addition to that, it could be observed that women were sitting on the ground while men were sitting on benches and chairs (see Illustration 1). Answering interview questions was mostly the area of responsibility of men. On the contrary, only women were chosen as safe keepers of the saving box and keys. Moreover, there were many children running around the interview venue. Yet, only women looked after them and made sure that they would not be disturbing the interview. Men pretended to be rather indifferent in taking care of their children.

Analysis of the network model '5FG' Network Structure

The network structure of 5FG shows that there are no clearly expressed hierarchies that shape the farmers' group. Work is mostly done on an individual basis. This is also shown by a statement of the network that says that the main objective of forming 5FG was to get access to machinery not to divide work. As indicated before, there are several official positions obtained by some members such as the chairpersons or key keepers. The chair of the network only guides the general trajectory of the network, not the work of individual members. The key keepers are not hierarchically superior to other members of the network either. This shows, that the general setup of 5FG is shaped by a non-hierarchical system that encompasses selected positions that provide the network with structure and

supervision. The emphasis put on the on the saving box shows that the network indeed developed a protection mechanisms against the abuse of commonly held capital. There were no statements made about the diversity of network members. Still, due to the observations made during the interview, it can be derived that the membership environment is rather homogeneous, implying that the dynamic of the network still leaves room for improvement. This is also suggested by a statement of one member who reported that although they have created this network in order to get access to machinery, they are still lacking equipment and tools such as post-harvesting machines.

Trust

Although the saving system of 5FG is quite sophisticated compared to other farmers' groups, the existence of three key keepers and one safe holder of the saving box implies that there is a certain degree of suspicion within the network. The abuse of the collective savings should be prevented by all means. Although the interview was not conducted in English and hence only the main statements of the 5FG members were conveyed by the interpreter, it became clear that the existence of key keepers and safe holders of the box was very important to the members. Despite not directly mentioned by the respondents, the observations and the consistent stress on the safety of the network savings can be interpreted in a way that suggests that the level of trust might not be very high in 5FG network. However, especially due to the non-hierarchical nature of networks in general, trust as a determinant to transactions is an essential factor that contributes to the functioning of the system.

Exchange of information and knowledge

The exchange of information and knowledge is mainly shaped by improved access to sources of such intangible assets. As reported by 5FG, members have received trainings and education after entering the network. Like that they could improve their way of cultivating, especially regarding the distribution of seeds. This has changed the members' mindset towards a more economical way of doing agriculture. It implies, that the membership in the 5FG network helped to gain access to information individual were not able to access before. Moreover, it was stated that "the group has enlightened them about this practice [drying on the bare ground]" (5FG Interview Appendix 1, p. 2), it can be derived that the group itself also supports members to increase their awareness for ethical and unethical practices and hence for how to produce better quality products.

Yet, in connection with the analysis of trust within the 5FG network, the potential lack of trust between members might lead to a restricted exchange of information and knowledge amongst each other.

Exchange of tangible resources

As reported by the interviewees, the main objective of founding 5FG was to get access to machinery. This already implies that members were supposing that other members contribute relevant equipment to the common pool of machinery and tools that would be beneficial for them and hence decided to enter the network. However, the network is still lacking basic equipment and tools, showing that this system is not working yet.

Besides, the internal financing and saving system allows 5FG to be more

independent from external loan institutions. Like that, they centralize their capital dependence within their network and exploit the possibilities there. In this context, the degree of group affiliation of individuals can also be tested: if members do not want to contribute to the common financial pool of the network, the individual most likely does not show enough bonding towards the group. Naturally, some actors are simply not able to contribute machinery or capital to the farmers' group. In that case, individuals can pay the required amount in installment. Like that 5FG gives every member, independent from their assets, the possibility to make a contribution.

In addition to that, due to the non-existing hierarchy within 5FG and the consequent power equality of members, an equal distribution of resources is guaranteed. As reported, members can either ask for financial support of the common pool of money or they receive equal amounts of money as soon as a certain amount is reached. This implies that the awareness for equality regarding reception of resources is existing and does not pose a problem in the 5FG network.

Equality

Next to a fair distribution of resources, the general aspect of equality was further investigated. As derived from the observations, the interview setting implied that there exist differences between the status of men and women in the network of 5FG. The fact that women were sitting on the ground while men were allowed to sit on benches and chairs implies that there are major inequalities between genders. Although only a little aspect, this observation shows that women experience issues with gaining the same legitimacy

within the network as men. Despite the fact that the non-hierarchical structure indicates relatively equal power relations, this implication does not apply for a fair treatment of both genders in the case of 5FG. Furthermore, the observed inequality of women and men might contribute to a weak innovative environment.

Summary of case study 1

The analysis of the 5FG network shows that they incorporated the network typical non- hierarchical structures that allows members to operate individually without being restricted by superior organs and still being able to benefit from a joint pool of tangible resources and access and exchange to information and knowledge. Yet, the level of trust within 5FG is not distinct. Moreover, major inequalities between men and women stem the success of the network. In sum, this shows that 5FG has indeed managed to create a good platform for network interactions, however there is still room for improvement.

Case Study 2: The Adyegi Women Health Network – Oyam Interview

The Adyegi Women Health Network (A.W.H.N.) is a farmer's corporative situated in Oyam, Uganda (see Appendix 1). The network consists of 30 members in total, all engaged in the agricultural industry and was founded in 2010. As the title of the network already suggests, female members are dominating the corporative: it consists of 23 women and seven men. A.W.H.N. was founded on the basis of a former collaboration with the Global Health Network Uganda which is a non-profit organization (NGO) established in 2008 and aiming at improving health among community members. The NGO

support project in the areas of hygiene, livelihood or school health (Global Health Network (U), 2017). Individual members of today's A.W.H.N. received support and education from the Global Health Network Uganda and decided to continue as a small network to support themselves after the collaboration with the NGO ended. At the beginning, only women were allowed to become a member of A.W.H.N.. The aim was to further promote the health of women, gain access to education and financial means. However, later the network started engaging into more activities such as catering services for surrounding areas or tailoring work. That was when the network decided to include male members as well in order to get help with physically exhausting work they could have not done by themselves. Today, A.W.H.N. has an elaborate governance system with specific hierarchical and task-oriented positions. Next to a group facilitator who coordinates all activities within A.W.H.N., there also exists an official accounting officer, various chair persons, key keepers, a project officer and a secretary and loan officer.



Illustration 2: Interview setting of meeting with A.W.H.N. in Oyam.

As stated above, A.W.H.N. engages in various activities, namely catering services, farming and tailoring work. Besides, the network is also the loan

association of the adjoining village and like that also occupies an official position for people outside the network. Yet, farming is still the main activity of A.W.H.N.. Since located in Oyam, A.W.H.N. members are mainly harvesting cassava. As reported by members, they engage in all major steps involved in the cassava value chain, from preparing the land to harvesting the crop and preparing and finally selling the processed cassava. When asked if they plant and work together as a group, the members who were present during the interview answered with yes. Further processing in terms of drying and chipping the cassava is however done individually.

In this context, it could also be observed that most members received trainings from NGOs and governmental institutions on how to dry cassava, nevertheless the majority stated that they do not implement those recommendations. Instead of drying their crop on tarpaulins in order to prevent dust and dirt from getting in contact with the washed cassava, they spread it on the floor to let it dry. As reported by one member of A.W.H.N., there are differences in drying standards depending on the end product. If the cassava is intended to be used for brewing, then the quality demands of customers and buyers are low. On the contrary, if cassava is sold as an end product for direct human consumption, the farmers of A.W.H.N. try to emphasize the quality aspect more. As it could be observed during the data collection, A.W.H.N. indeed had tarpaulins however they were used as an underlay for sitting on the ground during the interview or were solely lying around next to cassava that was dried on the bare ground. One reason for this lacking quality standards was reported to be the insufficient financial means of the network that does not allow them to buy more and

better equipment and machinery. Although A.W.H.N. also has a loan association, they still lack capital to invest in tools and equipment.

Moreover, A.W.H.N. reported to have an informal guideline that forbids them to engage in unethical practices. Yet, the network reported that they do not have established any kind of informal standards regarding the cultivation, harvesting and processing of their cassava crops.

Observations

In addition to the interview with A.W.H.N., observation showed that the network is based on substantial gender equality. Due to the reason that A.W.H.N. was founded by women and only later on men were allowed to join, the female gender is playing a crucial role in this network. This can be also seen by the positions women in A.W.H.N. obtain. The group coordinator for example is a woman as well as one of the key keepers. Besides, during the interview more women than men spoke, also because most official positions were taken by women and hence they could give more detailed insights into their daily work than men.

Analysis of the network model 'A.W.H.N.' Network Structure

A.W.H.N. differentiates from the case of 5FG in the sense that it is not only engaged in agricultural activities but also in tailoring and catering services. Moreover, there exists a more hierarchical structure that is defined by the so-called group facilitator that coordinates and manages every activity that the network engages in. Yet observations did not give the impression that other members were subordinated to the facilitator. Rather it was a functional designation for one of

many member specific tasks, pointing to a very flat hierarchy. Besides, since A.W.H.N. is not only engaging in farming but also offers services, a more detailed coordination of the network activities is necessary in order to guarantee valuable output.

In addition to that, the diversity within the network is already implied by the fact that A.W.H.N. is offering services next to their agricultural goods. Hence, some members have more experience in farming while some members are more sophisticated in for instance tailoring. Subsequently, the network has managed to create a diverse membership environment that gives access to many more resources than just farming related ones, leading to a dynamic network structure.

Trust

The network was founded seven years ago and back then consisted only of women. Only after some time men were allowed to become members as well. From these two aspects, the following can be derived: first, the network and its general setup seem to be successful and its members are satisfied with the benefits they receive as through the network individuals. This suggests that the members meet A.W.H.N. with trust and are confident that they would be worse off when not engaging in this network. Hence, they trust the general notion of their network and subsequently also their fellow members. Second, due to the fact that A.W.H.N. decided to include men after some time shows that the female members believe and trust in the abilities of men and are confident that they contribute additional benefits to their network. Thus, trust between men and women in particular and trust between all

members in general do not seem to be disturbed either.

Moreover, division of labor is an important aspect of A.W.H.N.. Farming is done as a group, meaning that individual members are assigned certain tasks in order to make the procedure of preparing, planting, harvesting and processing more efficient. Besides, there are special activities that are physical more demanding and are done by men and certain activities that are done by women only. This also shows that members of A.W.H.N. rely on each other's capabilities and trust their fellow members with what they are doing and what they are best in. As there were no further trust issues reported or observed, it can be derived that the trust between members and the trust in the concept of their network is well-marked.

Exchange of information and knowledge

As reported by the interviewees, A.W.H.N. members have difficulties implementing knowledge they have acquired through trainings in the agricultural context. Although being taught that drying cassava is decreasing the product's quality, the network is still doing so. Instead of taking the advices received and implementing them as a network obligatory activity for processing cassava, A.W.H.N. is leaving it up to their members to utilize information. This indicates that the transfer and exchange of knowledge is not working properly. The efficiency of the mentioned informal guidelines is also questionable since unethical practices such as drying cassava on the bare ground is still being done without any consequences for members. Hence, acquired information does not get successfully transferred and translated into the network context, meaning that members also do not

exchange relevant knowledge gained through external institutions. Eventually, this hurts individuals in networks as well as networks in general since information and knowledge exists but it does not get exchanged and implemented, leaving A.W.H.N. with producing low quality crops.

Exchange of tangible resources

A.W.H.N. did not mention the access to and exchange of tangible resources or tools as a motivating factor to found or join the network. In light of the fact that respondents reported that they still lack basic equipment such as gum boots or plastic chairs, it can be derived that the network itself does not have a broadly equipped resource pool. It was stated that initially A.W.H.N. wanted to impose the rule that every member has to donate one tarpaulin to the network when joining it in order to make sure that every member can dry their cassava on an underlay. However, most of the farmers were not able to afford such a tarpaulin which is why the network gave up on this idea. This shows serious shortcomings in the existence of tangible resources and capital. This lack furthermore inhibits members from being able to exchange their assets, simply because they do not exist due to the poverty of A.W.H.N.'s members.

Equality

Initially founded as a women-only-group that focused amongst others on women's health, A.W.H.N. today also incorporates male actors. The mutual interest of both genders in engaging in this network shows that neither women nor men see the legitimacy of the other gender in the network as questionable. Furthermore, important organizational positions such as

the chairperson or the group facilitator are occupied by women. At the same time, the position of for instance the project officer is held by a man. Through the fair and equal distribution of power and official positions in A.W.H.N., the network is benefiting from a widespread mindset and allows A.W.H.N. to regard situations from various perspectives. Yet, it could also be observed that as in the case of 5FG, women were again sitting on the floor during the interview while men sat on benches and chairs. This could be a sign for dominance and superiority of men in the network despite the above signs of gender equality. However, since every interview conducted with farmers' group in the course of the field trip to Uganda exhibited this kind of array of men and women, it can be derived that there is a traditional reasoning behind this behavior that cannot be necessarily ascribed to a deliberate subordinated position of women in this particular network. Nevertheless, in sum it can be said that in the case of A.W.H.N. equality is ensured especially due to the fact that A.W.H.N. was founded by women only.

Summary of case study 2

A.W.H.N. can be considered as a good example for how equality in the informal agricultural economy of developing countries can be incorporated in network structures. This also leads to distinct trust relationships between the members. Through flat hierarchies and a balanced diversity of both genders as well as members with different functional backgrounds, the network ensures a dynamic and fair network structure. Nevertheless, the analysis also shows that there still exist inefficiencies in the context of resource access and exchange. Knowledge and information about for

instance ethically correct drying is present, yet members of A.W.H.N. lack the tangible resources to transform the theoretical information into practice.

Analysis

This analysis sheds light on the model and setup of networks in terms of farmers' groups in the informal economy of agriculture in Uganda. Two cases were examined regarding their network structure, trust relationships amongst members, exchange of information and knowledge, exchange of tangible resources as well as equality amongst network members. The analysis showed that in both cases the general idea of networks was well implemented. The network structures are shaped by non-hierarchical structures or very flat hierarchies and thus create a sophisticated platform for equality and trust. If members obtained superior positions within the network, they served as a coordinating, functional unit rather than a power possessing organ. In addition to that, both network cases introduced network specific functional tasks such as project officer or key keeper. Like that both networks developed a structural model for their networks that allows them to operate in a coordinated way without implementing strict hierarchies. The investigation of trust relations in the network proved to be rather difficult since the interview setting only provided limited time for each case. Furthermore, the interview questions were directed to the entire group, not to individual members. Hence, it is assumed that many members were biased and did not feel comfortable enough to talk about potential trust issues in front of their fellow network members. Yet, especially in the case of 5FG it could be observed that the

financial assets of the network seem to require special safety measures in order to protect it from any kind of abuse. This indicates that the trust level within 5FG might not be very distinct and therefore the collective pool of money needs special protection. On the contrary, it could also be the case that 5FG wants to protect its assets from external abuse. Due to the poor living circumstances of the members it would be easy to get access to any kind of valuables if they were not protected. In the case of A.W.H.N., especially the trust relationship between men and women were emphasized. From the roots of this network it can be derived that there do not seem to be major trust issues since all members, no matter whether male or female, deliberately decided to join the network. This implies that all members seem to trust in the network itself but also in the network members.

The exchange of information, knowledge and tangible resources is considerably shaped by the predominant level of trust. In both networks, it could be observed that there indeed exists exchange and transfer of both, tangible and intangible resources. If there were inefficiencies in transfer and exchange of knowledge, they mainly arose from the fact that the mindset of farmers did simply not allow them to utilize the newly acquired knowledge, making education and trainings rather superfluous. Problems with contributing tangible resources to a common pool of network assets proved to be difficult when farmers were too poor to financially afford to make contributions. Nevertheless, it has to be emphasized that the awareness for the general principle of networks, namely getting access to resources through exchanging and contributing, did indeed exist. Only the financial position of the majority of farmers hindered them from

A project mainly financed by:

Implemented by:

16

implementing it.

The last aspect examined was the level of equality in networks. This concerned equal and fair distribution of power as well as gender equality. Due to the flat or non-hierarchical network structures, power distribution was almost equal. No obtained position of a member could enforce more power than the other in neither 5FG nor A.W.H.N.. In both cases equality issues regarding gender were investigated. Yet, the case of A.W.H.N. represents a good example of how women can establish power through their own means. It furthermore gives valuable insights into how men are supporting women.

Policy Recommendations

Many of the inefficiencies and inequalities observed in 5FG and A.W.H.N. can be ascribed to the traditional mindset of farmers in rural areas of Uganda. The distinctive notion of religion and tradition is well-established and considerably influences the work of farmers. A lack of education, knowledge and trainings hinders the agricultural landscape in Uganda from going beyond their traditional ways of doing business and incorporating new approaches to farming. A further reason for the partly inefficient network setup is that for many farmers agriculture is rather a coping strategy in the context of the informal agricultural economy in order to be able to afford a living. The urge to provide their families with bare necessities like food or health care oftentimes leaves no space for developing awareness for the economic benefits of agriculture.

These aspects mean that new and innovative solutions have to be developed in order to increase the awareness of farmers in the informal economy of

agriculture in Uganda for economic benefits of agriculture. In particular, new approaches have to be tailored to the needs and the business realities of farmers so that educational support mechanisms can be actually successfully implemented. The notion of using networks in order to join forces and assets did indeed exist and was noticeably represented during the period of data collection. However, the implementation was still lacking. Therefore, another recommendation is to educate farmers about the specific attributes of networks such as trust relationships and a continuous and dynamic exchange of especially intangible but also tangible resources. Sensitizing them for the necessity of high levels of trust and strong and trust-based ties between network members can help them to achieve more efficiently and successfully operating networks. The issue of equality, particularly gender equality, is a topic that will barely be solved in the short-run. Especially here, traditions, religion and culture in general play a crucial role and impact the mindset of rural farmers. Changing this cognitive disposition will take a long time. The more pivotal it is to actively show farmers the importance of incorporating women in business and treating them equally as men. If not for the women's purpose, males in Uganda should at least be taught about what benefits gender equality has specifically for them.

Conclusion

In sum, this policy brief showed that the practical implementation of the theoretical approach towards networks does exist, even if it is still in its early stages. In order to achieve a more successful and efficient implementation of networks, it is therefore

A project mainly financed by:



Implemented by:



crucial to provide farmers' group with more support so that they can contribute more tangible and intangible resources

when entering the network. The general mindset and the living situations of farmers hinders them to develop a more sophisticated perspective on their agricultural businesses. In addition to that, further enhancing gender equality will determine the long-term success of networks.

This analysis contributes to existing literature through explicitly showing what difficulties farmers are facing when founding or engaging in networks. This is exemplified by two selected cases of farmers' groups which gives additional valuable insight into the landscape of farmers' groups in Uganda. From a practical point of view, this policy brief should serve as a guideline for supporting institutions and for farmers of some best practice examples but also some illustrations of what hinders the success of networks. Like that, this analysis intends to give insights from the fields and furthermore aims at providing a simple but sophisticated supporting tool for any kind of network formation in the informal agricultural economy of Uganda. Future research should focus on collecting data about the needs of farmers who are operating in the informal part of the agricultural economy of Uganda. Like that it can be guaranteed that theoretically elaborated approaches are close to the actual demands and urges. Strong emphasis has to be put on developing a system that gives access to knowledge and information regarding more efficient farming methods but also to the practical implementation of networks. Finally, since questions around equality and trust relationships are rather sensitive topics, it

is essential to conduct in-depth data about these areas over a longer period of time.

References

Afranaa Kwapong, N. & Lubega Korugyendo, P. (2010). Revival of agricultural cooperatives in Uganda, IFPRI Policy Note No. 10, Washington DC: International Food Policy Research Institute.

Ahuja, G. (2000a). The duality of collaboration: inducements and opportunities in the formation of interfirm linkages. *Strategic Management Journal*, 21, 317–343.

Ahuja, G. (2000b). Collaboration Networks, Structural Holes, and Innovation: A Longitudinal Study. *Administrative Science Quarterly*, 45(3), 425-455.

Bernhard, H., Fehr, E. & Fischbacher, U. (2006). Group Affiliation and Altruistic Norm Enforcement. *The American Economic Review*, 96(2), 217-221.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, 94(Supplement), 95–120.

East and Southern Africa Small Scale Farmers Forum (n.d.), Retrieved June 29, 2017, from <http://www.esaff.org/Uganda/>

Grant, R. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109–122.

Gulati, R. (1995). Does Familiarity Breed Trust? The implication of repeated ties for contractual choice in alliances. *Academy of Management Journal*, 38(1), 85-112.

Hanson, S. & Blake, M. (2009). Gender and Entrepreneurial Networks. *Regional Studies*, 43(1), 135-149.

Harriss-White, B. (2010). Work and Wellbeing in Informal Economies: The Regulative Roles of Institutions of Identity and the State. *World Development*, 38(2), 170-183.

Huggins, R. (2010). Forms of Network Resource: Knowledge Access and the Role of Inter- Firm Networks. *International Journal of Management Reviews*, 12(3), 335-352.

Inkpen, A.C. & Tsang, E.W.K. (2005). Social Capital, Networks and Knowledge Transfer. *Academy of Management Review*, 30(1), 146-165.

Knight, L. & Pye, A. (2005). Network Learning: An Empirically Derived Model of Learning by Groups of Organizations. *Human Relations*, 58(3), 369-392.

Podolny, J. & Page, K. (1998). Network Forms of Organizations. *Annual Review of Sociology*, 1, 57-76.

Ridgeway, C. L. & Smith-Lovin, L. (1999) The gender system and interaction. *Annual Review of Sociology*, 25, 191-216.

The World Bank (2013). Employment in agriculture (% of total employment). Retrieved 19-05-2018 from URL: http://data.worldbank.org/indicator/SL.AG.R.EMPL.ZS?locations=UG&name_desc=true

Thye, S.R., Lawler, E.J. & Yoon, J. (2011). The Emergence of Embedded Relations and Group Formation in Networks of Competition. *American Sociological Association*, 74(4), 387-413.

A project mainly financed by:



Implemented by:

