The role of social capital in cooperative development: the case of Atok coffee farmers

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Social Capital (SC) refers to the nature and extent of one’s participation in various informal networks and formal civic organizations. SC include network access and forms of participation, namely: “bonding” social capital—ties to people who are similar in terms of their demographic characteristics, such as family members, neighbors, close friends and work colleagues—and “bridging” social capital—ties to people who do not share many of these characteristics (Putnam, 2000).

The primary contribution of this paper is to share insights on the relationship of SC and its manifestations and perceived economic performance among coffee farmers. This study adapts Putnam’s definition of SC and the research proceeded via a three-step process. First, I gathered demographic and SC manifestations data. Second, I conducted Focus Group Discussions (FGD) among farmers. Finally, I analyzed whether SC contributes to the perceived economic performance of the farmers. I adapted the Social Capital Questionnaire of World Bank, which was tested for reliability and validity by previous researches. I also did two rounds of pre-testing to ensure the questionnaire is applicable in the local setting. I surveyed and conducted FGDs in Atok, a cooperative in the Cordillera region. There were a total of 97 survey respondents and 10 participants for the FGD.

In general, the respondents identified a very high level of bonding social capital because of the interplay between culture and participation in the cooperative. They almost universally indicated a stronger sense of meaningful interactions such as participating in casual events like birthdays and weddings. These interactions resulted to higher level of trust among the people in the community. The members also expressed increased participation in activities in their immediate community while performing the duties and obligations of their roles in the cooperative. In terms of bridging social capital, the cooperative identified instances where they interacted with other farmer groups. Finally, in terms of linking social capital, Atok cooperative is a usual recipient of training programs and other forms of assistance from various organizations. The income of cooperative is still small yet the members strongly feel the improvement in their economic status.

Major findings of the research are the following. First, for most of the manifestations of SC, Atok derived numerous benefits from the business transactions. Among the emerging themes of the research are first, education, age and marital status have compounding influence on trust, collective action and willingness to help. Second, “bonding” social capital (relationship among members) that leads to increase in trust, solidarity and collective action within a group, needs to be supplemented by “bridging” social capital (relationship outside the cooperative). Bridging social capital results to higher trust to other institutions and can facilitate access to greater resources and opportunities. Third, the frequency of participation in community activities has a positive relationship with level of trust, consequently increases cohesion and collective action among members.

Keywords: Social capital, coffee farmers, economic performance
Background of the Study

Globally, there is a rising trend in the volume of coffee traded around the global market. Although the volume has slowly grown in the traditional global markets, this is compensated by the higher growth rates in the emerging markets.

Coffee occupies an important place in the world economy, being widely consumed as the most prestigious beverage. In the world trade, coffee ranks first among non-staple food and is rated as the fifth most important agricultural product.

In the Philippines, the growing population as well as the growing popularity of coffee as a beverage has significantly impacted on the rise of demand for coffee. The current annual domestic consumption of coffee is now estimated at 130,000 metric tons of coffee green beans and is increasing at the rate of approximately three percent per year. About half of the market demand is being supplied by importation because of the deficit in domestic production. The decreasing trend in production within the past recent years has prompted the Philippines to depend on importation causing the country to loss about 700 million pesos a year.

The Philippines used to be the top coffee producer and exporter in Asia but declining yields and conversion of coffee plantations to other export crops resulted to an importation of coffee since 1997. It is estimated that the coffee industry employs 70,000 farmers in 22 provinces including Sultan Kudarat, Compostela Valley, Sulu, Bukidnon, Kalinga, Ifugao, Benguet, Batangas, Cavite, Negors, and Davao. In 2012, the top producing region were SOCSARGEN followed by Davao Region, ARMM, CALABARZON and Western Visayas. The Cordillera Administrative Region (CAR) was number 6 in terms of total coffee production in dried berries form.

As of the present, the Cordillera has an existing 7,781 hectares utilized for coffee production and another 3,000+ hectares potential expansion areas. Coffee has also been identified as an economic commodity to promote agro-forestry under the National Greening Program (NGP), which is a component of the National Convergence Initiative (NCI) program.

In recent years, the coffee industry has since gained an important place as an economy booster of the region. Despite the rising demand for coffee, farmer groups, including those CAR (Cordillera Autonomous Region) registered one of the highest increases in poverty incidence at 5.1% across all regions in 2006 (National Statistical Coordination Board, 2010).

This study seeks to shed light on the perceived economic development of farmers using social capital theory. The theory features the condition to achieving participatory democracy such as relations of trust, reciprocity, co-operation, networks, bonding, norms, voluntary associations and ‘civiness’ that an inclusive civil society seemingly requires (Roberts, 2004). Simply put, social capital can be understood as a set of informal norms and values, common to the members of a specific group that allows the cooperation among them. Therefore, it is a component of the social theory that is being considered as a key element for the human and economic development (Macke & Dilly, 2010). Given the research applications of social capital theory, this paper will likewise utilize the theory in analyzing the coffee farmer cooperative in Atok, a town in the Cordillera Autonomous Region (CAR). The author will endeavor to shed light on the impact social capital and its manifestations and the perceived economic performance of farmers.

Social capital gained popularity after the publication of the work of Robert Putnam (1995) in political science, James Coleman in educational sociology (1988) and Francis Fukuyama (1996) in economic history and sociology, as well as to the active patronage of the World Bank (1997). While there are many ways on how to define social capital, there is some consensus within the social sciences towards a definition that emphasizes the role of networks and civic norms (Healy,
Putnam (2000) argues that social capital has forceful, even quantifiable effects on many different aspects of our lives and it is more than warm, cuddly feelings or frissons of community pride. These quantifiable effects include lower crime rates (Putnam, 2000 and Hardoy et. al., 1999), better health (Wilkinson, 1996), improved longevity (Putnam, 2000), better educational achievement (Coleman, 1988), greater levels of income equality (Krishnan, 2008 and Wilkinson, 1996), improved child welfare and lower rates of child Abuse (Cote & Healy, 2001) and more effective government (Putnam, 1995) and enhanced economic achievement through increased trust and lower transaction costs (Fukuyama, 1995).

This research utilized the definition of political scientist Robert Putnam, that social capital refers to the nature and extent of one’s participation in various informal networks and formal civic organizations. Given that social capital is most frequently defined in terms of the groups, networks, norms, and trust that people have and could be used for productive purposes, this paper will capture this multi-dimensionality. Moreover, structural social capital defined as the types of groups and networks and the nature and extent of member contributions, and cognitive social capital, which refers to respondents’ subjective perceptions of the trustworthiness of other people and key institutions as well as the norms of cooperation and reciprocity, were examined.

This study likewise measured network access and forms of participation, these are “bonding” social capital—ties to people who are similar in terms of their demographic characteristics, such as family members, neighbors, close friends and work colleagues—and “bridging” social capital—ties to people who do not share many of these characteristics (Gittell and Vidal 1998, Narayan 2002, Putnam 2000). What defines the boundaries between different bonding and bridging groups will clearly vary across contexts (and is thus endogenous), but these boundaries are salient nonetheless—usually politically—and it is important to identify where they lie, and how they are constructed and maintained (Grootaert, et. al., 2003).

Recently, other researchers have suggested a third conceptual classification which is called “linking” social capital (Woolcock 1999, World Bank 2000). This dimension refers to one’s ties to people in positions of authority, such as representatives of public (police, political parties) and private (banks) institutions. This conceptual development stemmed from a long-standing concern that there can be (and usually is) enormous heterogeneity—both demographically and in terms of their importance to one’s immediate or future well-being—among the people that could plausibly be identified as part of one’s bridging social capital portfolio. Where bridging social capital, as the metaphor suggests, is essentially horizontal (that is, connecting people with more or less equal social standing), linking social capital is more vertical, connecting people to key political (and other) resources and economic institutions—that is, across power differentials. Importantly, it is not the mere presence of these institutions (schools, banks, insurance agencies) that constitutes linking social capital, but rather the nature and extent of social ties between clients and providers, many of which are an inherent medium for delivering services (such as teaching, agricultural extension, general practice medicine, etc.).

**Operational Framework**

This study adopted the World Bank Social Capital Integrated Questionnaire (SCIQ) similar to recent studies on FT and social capital (Elder et. al., 2012). The questionnaire is consisting of the following dimensions:

*Dimension 1: Groups and Networks*
Understanding the groups and networks that enable people to access resources and collaborate to achieve shared goals is an important part of the concept of social capital. Informal networks are manifested in spontaneous and unregulated exchanges of information and resources within communities, as well as efforts at cooperation, coordination, and mutual assistance that help maximize the utilization of available resources. Informal networks can be connected through horizontal and vertical relationships and are shaped by a variety of environmental factors, including the market, kinship, and friendship.

Another kind of network consists of associations, in which members are linked horizontally. Such networks often have clearly delineated structures, roles, and rules that govern how group members cooperate to achieve common goals. These networks also have the potential to nurture self-help, mutual help, solidarity, and cooperative efforts in a community. “Linking” (vertical) social capital, on the other hand, includes relations and interactions between a community and its leaders and extends to wider relations between the village, the government, and the marketplace.

**Dimension 2: Trust and Solidarity**

This dimension of social capital refers to the extent to which people feel they can rely on relatives, neighbors, colleagues, acquaintances, key service providers, and even strangers, either to assist them or (at least) do them no harm. Adequately defining “trust” in a given social context is a prerequisite for understanding the complexities of human relationships. Sometimes trust is a choice; in other cases, it reflects a necessary dependency based on established contacts or familiar networks. Distinguishing between these two ends of the continuum is important for understanding the range of people’s social relationships and the ability of these relationships to endure difficult or rapidly changing circumstances.

**Dimension 3: Collective action and cooperation**

Collective action and cooperation are closely related to the dimension of trust and solidarity. However, this dimension explores in greater depth whether and how people work with others in their community on joint projects and/or in response to a problem or crisis. It also considers the consequences of violating community expectations regarding participation norms. To understand this dimension, interviews with formal leaders in both cooperative and FT organizations and focus group discussion among farmers were conducted.

**Dimension 4: Information and Communication**

Increasing access to information is increasingly recognized as a central mechanism for helping poor communities and strengthens their voice in matters that affect their well-being (World Bank 2002a). This dimension aims to explore the ways and means by which households receive and share information regarding issues about the community at large, market conditions, and public services, as well as the extent of their access to communications infrastructure.

**Dimension 5: Social Cohesion and Inclusion**

Social cohesion and inclusion are closely related to the previous four dimensions of social capital, but focus more specifically on the tenacity of social bonds and their dual potential to include or exclude members of community. Cohesion and inclusion can be demonstrated through community events, such as weddings and funerals, or through activities that increase solidarity, strengthen social cohesion, improve communication, provide learning for coordinated activities,
promote civic-mindedness and altruistic behavior, and develop a sense of collective consciousness.

**Dimension 6: Empowerment and Political Action**

Individuals are empowered to the extent that they have a measure of control over the institutions and processes that directly affect their well-being (World Bank 2002a). The social capital dimension of empowerment and political action explores the sense of satisfaction, personal efficacy, and capacity of network and group members to influence both local events and broader political outcomes. Empowerment and political action can occur within a small neighborhood association or at broader local, regional, or national levels. Each level has its own importance and should be considered separately, as well as in conjunction with the others. This dimension also considers social cleavages, whether related to gender, ethnicity, religion, regionalism, or other factors.

**Dimension 7: Subjective Economic Performance**

In addition to the manifestations included in the World Bank Questionnaire, this study will also look at the economic impacts of FT among farmer cooperatives. Most of the global studies conducted about FT point to positive effects on the lives of the farmers. This study will likewise look on the economic indicators to validate whether the same situation exists in the local context. The study utilized economic measures as perceived by the farmers. Recognizing the difference in the level of analysis, I contextualized the World Bank Social Capital Integrated Questionnaire (SCIQ), which is used to measure social capital in the individual level, to measure social capital in the group and community level. Figure 2 shows how the dimensions of social capital are contextualized and operationalized in this study.

The research design is both descriptive and exploratory. Descriptive since the study describes the nature of social capital and its manifestations among the farmers. Exploratory, at least in the Philippine setting, as there are limited studies conducted about social capital among farmers. This is a formal study that is cross-sectional in nature, the setting is on field and data collection is communication.

Atok case

“Coffee trees are like insurance. It gives you peace of mind as it provides steady flow of income for these trees will bear fruits for many years” – Windy Wais, Cooperative member.

Atok is centrally located in the heart of the province of Benguet. It is bounded by the municipality of Kibungan and Buguias on the north, the municipalities of Kabayan and Bokod on the east, the municipality of Kapangan on the west and the municipality of Tublay on the south. (“Benguet,” n.d.).
Figure 1. Contextualized operationalization of social capital and its manifestations.
The formation of cooperative was mainly due to the increasing demand for coffee with the primary objective of augmenting the income of the members. Ms. Dampoag commented “There were coffee buyers who visited us and informed us that they have huge demand for coffee. Since we plant coffee in our backyard, our production level is low. The buyers suggested that we form a cooperative so we could get support from the government and eventually increase our production”. The low selling price of sayote, which is sold at 5 pesos per kilo, compounded the desire of the members to organize for them to sustain their daily needs.

Driven by the desire to increase production, Atok farmers formed The Atok Arabica Coffee Growers Marketing Cooperative (ATACOGMAC), which was duly organized on September 09, 2009 through the Municipal Agriculture Office- Local Government Unit (MAO-LGU) of the Municipality of Atok here in Benguet province. With the effort given by the Municipal Agriculture Officer Mr. Fred Rufino together with the coffee growers of Caliking, Atok, Benguet they come up to discuss issues and concern regarding coffee production during the meeting and learned the importance of the Arabica Coffee industry to the market as of these days.

**Atok social capital analysis**

The succeeding paragraphs look in the social capital and its manifestations and perceive economic performance of the farmers.

The age range of the farmers is distributed at around 50% each at 20-23 and 40 and older. In Atok, more women are involved in farming (63% versus 37%) and more women also stay as farmers even beyond 50 years old. The equal age distribution signifies that when someone became a farmer, he/she stays as farmer for so long. They do not explore any other job options making them to stay in the community.

Majority (77%) of the respondents is married and there is an equal split of single respondents between male and female. In terms of educational attainment, there is almost an equal split of high school and college level farmers (40% versus 34%). In general, the educational attainment of male and female are comparable. As most of the farmers are married, they stay in the community where they raise their family since they have the obligation to their family. As regards the single farmers, they still have options to relocate or change profession since they are not tied with responsibilities yet. The low educational attainment also signals that the people in the community are limited to jobs that do not require college degree such as farming. Again, this contributes to the reasons why people in the community remain as farmers.

In terms of number of years in farming, 37% of the farmers just ventured into agriculture just recently, with less than 1 year experience and 28% spent more than 15 years in the trade. This shows a fine balance of new and old farmers. More farmers stay in the profession at the same time non-farmers are attracted to venture into farming. The growing number of farmers with less than 1 year experience shows that more people are interested in farming. The increasing economic benefit of farming makes the profession attractive for other people in the community. In both (less than 1 year and more than 15 years), it is interesting to note that there are more females than males.

The size of the household is dominantly less than five (5) household members (62%), followed by five (5) to ten (10) members (30%). The small household size indicates that the families may have lower financial need to survive. Household heads are relieved of extreme pressure to earn more to provide for the family.
Majority (68%) of the households have one (1) or two (2) working member/s. The people working in the family are usually the fathers, as the active farmer, while the mothers help in minor farming activities. Mothers are also responsible for taking care of household chores and the children. It is noticeable that there is a considerable percentage (32%) of households with more than two members all working at the same time. This could mean higher average earning for the household in this group.

**Groups and networks**

Formal and informal organizations relevant to social development intervention exist in the area. Apart from traditional social associations, there were some formal organizations including project village committees and NGOs that carry out social development work. All of the respondents are members of ATACOGMAC.

Data showed that farmers are similar in terms of occupation and education while they are different in terms of religion, ethnic group and gender. The variation indicates that there are people from other places who settled in the area. Although huge differences exist, people in the community do not see it as a source of conflict.

Majority (88%) of the respondents said they interact outside of their neighborhood. People get together not only during official functions but also during casual social gatherings such church activities, meetings of the barangay and cooperatives, and parents and teacher association meeting. Casual interaction among the members suggests close relationship.

Ms. Cawa-ing related “the people in the community usually gather during seminars in Barangay hall, meetings in the school, and fellowship in the church. Example of gathering in the school before classes’ starts is the Brigada skwela wherein all parents of the pupils enrolled in the school should work together in cleaning the school surroundings”. Ms. Pakias added “there are also gatherings where people participate such as birthdays, child dedication or baptism, weddings, burial, and other occasions and most people in the community are usually invited and interact with each other” (personal communication, October 6, 2014).

The farmers mentioned that livelihood improvements, such as hog raising, coffee production, and coffee processing are the usual topics during meetings. Mr. Tindo shared “there were times that when he needs seedlings but don’t have enough money to buy and its already time of planting, he can easily ask his neighbors for financial assistance or sometimes they will lend him seedlings which he must replace later” (personal communication, October 6, 2014).

In addition, Ms. Camsit emphasized, “It is a common practice that during occasions or in times of need, people within the community help each other. It’s a tradition that as a responsible neighbor, it seems that we all are obliged to help, assist, teach, and support each other to the best of our ability” (personal communication, October 6, 2014).

Relating to the development of membership, majority (85%) of the respondents believed that membership increased in the last five years. The increasing interest of people in farming is evident in the membership growth of the organization. According to Mr. Odiem, the growth of membership is driven by old farmers, those who have been farming for for several years, as well as new coffee farmers.

More membership means that farmers have more connection with each other, which is reflected in the variables of trust and solidarity, and social cohesion and inclusion. This connectivity enabled villagers to achieve livelihood benefits. In fact, 78% of the respondents feel that people outside their household are willing to help them in times of financial crisis. In turn, the members are also willing to extend help to people even outside their household. The
farmers generally said that they believe that borrowers would pay back loans. Turner (2007) observes that high-trust networks based in close family, relatives, neighbors or friends positively support farmers to access informal financial capital sources.

The cycle of helping other people continues because people who got help want to return the favor by helping other people. This kind of system further encourages people to develop closer ties.

The farmers also possess linking social capital with buyers, politicians and government officers through which they obtain livelihood benefits. As presented earlier, farmers get support from NGOs and LGU.

**Trust and solidarity**

Almost all of the respondents said that they know each other since they were neighbors for a long time. While there are migrants in the area, usually they came from nearby towns and this is due to marriage. This situation resulted to high level of trust among members and is reflected in the confidence of the farmers that no one will take advantage of them in the community.

The strong sense of trust is validated by Ms. Pakias who narrated “I strongly feel that people in the community can be trusted, for example, when I go to the farm, I always ask my neighbor to look after our house and my pets and they are happy to do it for me. Of course, when they ask the same favor from me, I do the same for them, it is a give and take relationship” Mr. Tindo added that, “trust is also practiced during harvest in the sense that the neighborhood will help without monetary payment since it is also expected that you will do the same when they will also have their own harvest.”

The high level of trust is also reflected in the solidarity data where 74% of the respondents said that they are willing to participate in activities that do not benefit them directly but benefit the community at large. Furthermore, 72% of the respondents answered that they are willing to spare their time while 62% are willing to contribute money. This solidifies the fact that the members of the cooperative developed a deep sense of relationship. In cases of financial assistance, Ms. Cawaining shared “we can easily get financial assistance in the community from cooperatives where we can borrow, and also “Paluwagan” for informal one” (personal communication, October 6, 2014).

In terms of trust the highest rating is local government unit (53%) followed by central government unit (44%) and NGOs (43%). This is supported by the FGD where the respondents said that if it concerns minor problem, they seek help from the elders of the community, if it is not settled on this level, they will elevate it to Barangay council (part of the LGU sector) and then municipal level or courts, which rarely happens. This means that beyond the immediate community, when problems get worse, farmers are inclined to seek help from LGU. However, if they belong to same religion, the pastor or elders of the church would try to settle disputes through discussions and prayers. Ms. Aligan indicated “in case there are problems in the community, we seek the help of barangay officials, although there were instances that elders were able to settle disputes” (personal communication, October 6, 2014).

In terms of whether the farmers will ask assistance from LGU, financial institutions and non-government organizations in times of technical difficulties, all of the three groups rated more than 50%. Among the three institutions, LGU registered the highest rating.

The farmers get support from other institutions. Ms. Calias shared “there were several training programs initiated by the Department of Agriculture through the LGU. We learned
different techniques, from planting to harvesting, which resulted to increase our coffee production” (personal communication, October 6, 2014).

**Collective action and cooperation**

Interaction with neighbors is significantly linked to perceived increase in farmer participation (Utting, 2009). This is consistent with the results of the collective action and cooperation data of Atok farmers. As a consequence of the high interaction of the farmers, majority (90%) of the respondents said that they participated in communal activity in the last 12 months to help improve the community. Likewise, 83% of the respondents said that they participated more than five times in the last month. The kind of participation ranges from formal to casual gatherings. Ultimately, bulk (88%) of the respondents said they would cooperate to solve a community crisis.

Ms. Cawa-ing shared an actual crisis that showed cooperation among the members. “I remember when we experienced landslide; the roads were filled with trees and mud. Before, when calamity such as this happens, we wait for LGU to initiate the clearing operation. Last year was different; I was surprised to see that people automatically went out of their houses and volunteered to help. I did not see this behavior prior to the formation of cooperative” (personal communication, October 6, 2014).

**Information and communication**

Communication is necessary for farmers to get information. Based on the data, there seems to be no problem on communication as nearly all (86%) of the respondents said that they received communication through text message or call between one to three times in the last month.

Information is highly accessible among farmers. During the FGD, Mr. Evasco shared that members are constantly updated of the current activities of the cooperatives through the information committee.

Ms. Cawa-ing said:

“People are reminded of meeting schedules through text messages, resulting to higher attendance rates. Also, if there are training or seminar, members are informed through text message. I remember that there was one instance that there were limited slots for the farming seminar, and I am not part of the delegation. However, during the event, one of the participants backed out, I received a text message from the cooperative which enabled me get the free slot. Officers also post information in the bulletin boards, waiting sheds, or any parts of the Barangay where people usually gather to make sure everybody are aware of it” (personal communication, October 6, 2014).

Among the sources of information are relatives, radio, television and community leaders. This is because most of the members of the cooperative are relatives and they live in the same community. Moreover, the availability of low cost mobile communication makes it easy for members to communicate with each other.

Ultimately, Mr. Tumlayen was happy to say “the information provided by NGOs, LGUs and non-government organization through the cooperative helped us improve our production i.e. when is the right time to plant and harvest coffee, sell our products at higher prices and decide intelligently about cooperative issues through consultation with various organizations” (personal communication, October 6, 2014).
Social cohesion and inclusion

This section discusses inclusion that ranges from general perceptions of social unity and togetherness of the community to specific experiences with exclusion. The presence of conflict in a community or in a larger area is often an indicator of the lack of trust or the lack of appropriate structural social capital to resolve conflicts, or both (Grootaert, 2004).

Based on survey data, 51% of the respondents believe that people in the community have varying characteristics. Also, 50% of the respondents believe that these differences cause conflict. Specifically, political party affiliation is nominated as the characteristics that most likely (24%) will cause conflict. This is because farmers feel that they are not represented in government positions. The high cost of getting into politics prevents most farmers to enter politics. In addition, farmers feel that the people in power favor select group of people.

For instance, Mr. Tindo shared “there was problem on the identification of beneficiaries of For Peace, a program where people got financial assistance. The criteria used to identify the beneficiaries were not clear; other people felt that there was bias in the selection process.” He continued, “To resolve the issue, a meeting was called where complainants expressed their opinion and the leaders addressed their concerns, although at the end, it seemed that the complainants were not happy with the explanation of the leaders” (personal communication, October 6, 2014).

The respondents also identified social status (20%) as another difference that can cause conflict. The affluent people enjoy most of the benefits in the community and they maintain their “inner” circle of friends. Finally, generation gap (21%) surfaced as another source of conflict. There is a growing misunderstanding between the young and old people in the community. The older people remain to be traditional and want the younger people to stay in the community as farmers; however, the younger people want to explore other profession but farming.

Concerning religion, there was no misunderstanding or isolation among members. Mr. Tumlayen shared “religion in the community never causes any problem since they respect the faith and belief of every individual. The cause of miscommunication has nothing to do with religion”.

As regards socialization outside their neighborhood, most (64%) of the respondents said that they socialize several times last month. One the reason for the high socialization was that most of them are friends since childhood. According to Ms. Camsit “some of my neighbors are my friends since childhood that is why we know each other. We usually see each other during weekends, in the backyard or in the church, and talk about life in general” (personal communication, October 6, 2014).

According to the FGD there was no incident of isolation that they know of. Ms. Pakias expressed, “there’s no instance yet that the minorities was excluded on any information or services. In fact, since the For Peace project is targeted at minorities, they were the first to know about it. Naturally, most of them eventually became the beneficiaries” (personal communication, October 6, 2014).

Inclusion was also evident in the characteristics of the people that they interact with. In terms of ethnicity, economic status, social status and religious affiliation, respondents said that they are different, yet the difference in characteristics did not prevent people from interacting with each other.

Empowerment and political action
Empowerment refers to the expansion of assets and capabilities of people to participate in negotiate with, influence, control, and hold accountable institutions that affect their lives (World Bank, 2002).

Across all the measures of empowerment, more than half of the respondents rated each favorably except for whether they meet market requirements.

In terms of happiness, majority (81%) said that they are happy with their life. Improvement in economic situation contributed to the happiness of the people. Other source of happiness includes realization of self-worth. Ms. Magno voiced out “I feel that people in the organization value my opinion. I can freely express my opinion without the fear that people will criticize me. It gives me a sense of worth in the organization; this is probably the best part of being a member of the cooperative’ (personal communication, October 6, 2014).

Most (84%) of the respondents noted that there was improvement in their technical capabilities. During FGD, Ms. Aligan narrated “membership in the cooperatives enabled us to improve our technical capabilities. Before, we sell our coffee after harvest (green coffee) but the price is really cheap. Coffee beans can be sold at a higher price if it is roasted. Through the cooperative, we have access to roasting machines which enable us to sell our coffee at a higher price. Also, if there is new technology on coffee processing in the cooperative, the leaders make it available to us to improve our farming skills.” Furthermore, Ms. Calias added “We have the technology now to produce our own three-in-one coffee mix. We also have packaging machine in the roasting station for this instant coffee” (personal communication, October 6, 2014).

As regards meeting the market requirement, 47% responded positively. Ms. Magno validated this saying:

“Before the level our production is really low. We can only supply limited harvest to the market. Ever since the cooperative partnered with a bulk buyer, we started producing more coffee through the help of different organizations, including buyers. In fact, recently, there is a multinational company who offered to help us further increase our production. In exchange, they will buy all our produce, this is still under negotiation. However, despite the technical improvements, we still cannot supply the increasing demand for coffee” (personal communication, October 6, 2014).

Most (66%) said that they have the power to change the course of their lives. Ms. Magno articulates, “I am very thankful that the cooperative helped us improve our production capacity. Now, we can produce high quality products and generate higher profits.” Considering the high incidence of poverty in the area, the increase in profit greatly contributed to the happiness and sense of empowerment of the people.

**Perceived economic performance**

Bulk (76%) of the respondents said that their agricultural production increased in the last five years. Ms. Calias stated “I am certain that our production increased compared to five years from ago. Currently, we are provided with more seedlings that have higher yields. Even if our farming area is the same, because of the better seedling variety, our production increased. The new knowledge on coffee farming made it also possible to increase our yield” (personal communication, October 6, 2014).
The increase was attributed to the trainings given to the farmers by the LGU, CGU and NGOs. Based on the previous section, LGU gave the most number of trainings to the farmers, giving the farmers a sense that they can rely on LGU for support. Consequently, the income status of the farmers increased.

The increase in production is consistent with the increase in income of the farmers. Nearly all (74%) of the respondents felt that their income status got better compared to five years ago. Mr. Tindo stated “income increased for most of the farmers, but not for everybody. Farmers are definitely getting more profit from their harvest. But for some people, they still lack money several months after harvest. This is probably because they do not know how to manage the profit that they generate during harvest time. If most people will know how to better manage their income then they will maximize the profit they get from their harvest” (personal communication, October 6, 2014).

As for the improvement in the standard of living, 57% responded positively. Ms. Camsit said “people in this community were satisfied because they have extra money from their harvest. Now, they can afford to send kids to school and buy other necessities. Food is never a problem here because most of us also plant vegetables; we get our food from the farm. Ultimately, Mr. Tindo communicated “our membership in the cooperatives contributed to the development of our economic status. Through the cooperative, we can easily avail of financial loans in case of emergency. This adds more peace of mind to us especially during difficult times.”

Although in general, the farmers are happy with the development in their economic performance, other than money, people are worried about calamities, global warming and out of school youth issues. Also, as indicated in the answer above, financial literacy training could help farmers to sustain their standard of living.

**Summary of bonding, bridging, linking social capital**

This section provides a summary of the indications of bonding, bridging and linking social capital based on the survey and FGD results.
In the previous discussions, it is apparent that Atok has a high level of bonding social capital as supported by the high level of interaction and trust with each other. The good relationship resulted from several factors such as their culture, location or even membership in the cooperative. Although it is difficult to exactly quantify the effects of each these factors.

Ibaloi culture played a vital role in the development of the bonding social capital. Ibalois have a tradition called “Sakop” which is about helping each other without expecting any payment in return. Moreover, the proximity of the houses of the people further improves the social capital of the people as they can easily reach out to each other.

In general, the respondents identified a very high level of bonding social capital because of the interplay between culture and participation in the cooperative. They almost universally indicated a stronger sense of meaningful interactions such as participating in casual events like birthdays and weddings. These interactions resulted to higher level of trust among the people in the community. The members also expressed increased participation in activities in their immediate community while performing the duties and obligations of their roles in the cooperative.

In terms of bridging social capital, the cooperative identified instances where they interacted with other farmer groups. As one of the most productive cooperatives in the region, DA invited Atok during meetings with other farmer groups to share their experiences and encourage other farmers to form their own cooperative.

Atok also get in touch with other farming groups to buy their harvests. Unfortunately, the quality of their coffee is still low. In order to help other farmers improve their product, Atok conducts
informal training on basic planting techniques. They are also helping them on how to start organizing their group. These collaborative efforts with other farmer groups illustrate the strong bridging social capital of Atok.

Finally, in terms of linking social capital, Atok cooperative is a usual recipient of training programs and other forms of assistance from various organizations. Among the supports that they obtained are free participation in trade fairs, beneficiary of equipment such as depulper, and processing center. Recently, the cooperative moved to a new building which was funded by DA. The cooperative is leasing from the cooperative members who own the land. The payment is after 15 years, the building will be turned over to the land owner. The projection is on the 15th year, the cooperative has already developed a full capacity to operate independently. The income of cooperative is still small yet the members strongly feel the improvement in their economic status.

The respondents recognized the numerous supports provided by other institutions in improving their technical capacity and level of production. Farmers are thankful of the various supports extended to them from trainings to connecting them with buyers. Specifically, the assistance provided to the farmers were market access, distribution of coffee, better relationships with buyers, or technical assistance regarding harvesting and drying of coffee beans. Accordingly, the members frequently interact with these institutions during training programs, thereby increasing their linking social capital. Figure 3 illustrates the different social capital of Atok. The bold line connecting the different groups signifies strong social capital among the groups.

Closer examination of the data revealed several emerging themes from the research. The themes are as follows:

Social capital suggests a virtuous cycle. The higher the frequency of participation in community activities, results in higher level of trust, consequently higher cohesion and collective action.

One of the positive manifestations of a high level of social capital in the community is the occurrence of frequent every-day social interactions. This “sociability” can take the form of meetings with people in public places, visits to other people’s homes or visits from others into
one’s own home, and participation in community events such as sports or ceremonies (World Bank, 2000).

An examination of pattern of interaction, trust and solidarity, social cohesion and collective action of the two cooperatives revealed that the frequency of interaction triggers the development of trust among members thereby increasing social cohesion and collective action.

*Strong bonding social capital does not necessarily translate to the development of linking social capital. Bridging social capital connects bonding and linking social capital.*

Groups with linkages often have better access to resources, especially from outside the community, such as from government or NGOs (World Bank, 2000). My research revealed that Atok farmers have higher trust on other institutions compared to Tublay farmers. One of the reasons why Atok farmers trust central government unit is because they provide training assistance to the farmers. Ms. Agnes Calias, a farmer from Atok, shared “there were several training programs initiated by the Department of Agriculture through the LGU. We learned different techniques, from planting to harvesting, which resulted to increase our coffee production” (personal communication, October 6, 2014).

In order to distinguish whether these daily social interactions are of the bonding or bridging variety, I asked the respondents whether the people with whom they interact are of the same or a different ethnic or linguistic group, economic status, social status, or religious group. Looking at the result of the survey, Atok is heavy on both bonding and bridging, consequently, strong linking social capital. The high linking social capital of Atok gave them access to resources critical to increase their production. This is also reflected in the perceived economic performance of Atok farmers which is significantly higher compared to Atok. The glaring difference between the two farmer groups is the strength of “bridging” social capital. This suggests that bridging social capital plays an integral role in the development of linking social capital, which is instrumental in paving the way for Atok to access more resources from powerful institutions.

*Education exerts the strongest influence on trust, collective action and willingness to help.*

According to Putnam (2000), education is by far the strongest correlate of civic engagement including social trust and membership in many different types of groups, i.e. the higher the educational level the higher the levels of trust. Putnam points out that highly-educated people are more inclined to trust others, as they are more likely to be better off economically, thanks to the confidence they have in the skills, resources and inclinations imparted to them at home and in school.

A similar research on social trust which was conducted at local level in Greece revealed that higher levels of education are strongly associated with higher generalized trust levels, while low-educated people tend to exhibit lower levels of trust (Roumeliotou & Rontos 2009). Consistent with the previous findings, contrasting the educational level of farmers from Atok, 53% reached college level in Atok. Atok registered higher trust level to institutions in authority (linking). Consequently, Atok farmers have higher belief that institutions are willing help to them in terms of crisis. Education level could explain why Atok farmers have higher trust rating to different institutions compared to Tublay. The confidence that Atok farmers gained from their education gave them the confidence to deal with powerful institutions.
Mr. Oliver Odiem, business development manager of Atok, shared “we negotiate the price of the coffee with the buyers. We take into account the all our expenses then put around 30% to 40% profit margin. In most cases, the buyers agree with the price we set and terms of payment” (personal communication, April, 2, 2015).

Ultimately, Atok farmers are poised to further increase their productivity following the research of Jordaan & Grove (2013) which states that more educated group of farmers was found to be significantly more optimistic about the future. The more educated farmers may be in a better position to grasp the potential opportunities that exist for them to improve their performance. Higher levels of education contribute to the high levels of human capital that are required to adopt sophisticated new technology.

My findings provide new insight into previous research on the impact of social capital among farmers. Like Pirotte, Pleyers, and Poncelet (2006) and Moberg (2005), I observed that producers develop social networks and a sense of community through shared work and regular meetings. Nahapiet and Ghoshal (1998) specify intellectual capital as the way in which social capital impacts upon value creation. The combination and exchange of knowledge are complex social processes and that much valuable knowledge is fundamentally socially embedded -- in particular situations, in co-activity, and in relationships. Given the social embeddedness of intellectual capital, Nahapiet and Goshal (1998) argues that social capital theory offers a valuable perspective for understanding and explaining the creation of intellectual capital. Consequently, the special capabilities of organizations for creating and transferring knowledge are being identified as a central element of organizational advantage.
References