

Status of Social Capital and Community Empowerment: A Study in the Contexts of Organic and Conventional Farming Systems in Bangladesh

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1. Introduction

There is growing interest in the “social capital” concepts and its ramifications for community well-being and public policy. The term captures the idea that social bonds and social norms are an important part of basis for livelihoods. Its value was identified by Jacobs (1961) and Bourdieu (1986), later given a clear theoretical framework by Coleman (1988), and brought to wide attention by Putnam (1995). The most common definition of social capital regards it as “features of social organization, such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995). Although there are many different descriptions of social capital, the major three central elements are social network, norm and trust (Productivity Commission, 2003). Another fundamental distinction is often made between the components of its concept, which include the “bonding,” “bridging,” and “linking” social capital (Woolcock, 2001). Bonding social capital refers to those relationships and norms that strengthen ties within relatively homogenous groups, while bridging capital refers to relations between heterogeneous groups, and it strengthens ties across such groups. The third dimension, the linking social capital refers to relations between individuals and groups in different social strata in a hierarchy where power, social status and wealth are accessed by different groups (Productivity Commission, 2003).

The development of organic farming began early of 20th century and soon it emerged as an alternative approach to high external input based conventional farming system. Despite some differences between the different schools the main aim of organic farming can be summarized as to create sustainable agricultural production system (Padel, 2001). A number of environmental, economical and social benefits have been attributed to organic farming and were confirmed on the basis of available literature as compiled by Lampkin and Padel (1994), Stolze et al. (2000) and Rahman (2001). Worldwide, the organic farming movement has been characterized by the networking and internal cooperation of its different actors such as producers, consumers, researchers, processors, traders, and policy partners (civil society members). Some of the modalities of such

cooperation are direct marketing, consumer-producer association, product networks, country communities, and action culture-land (*Aktion Kulturland*) as documented by Garber and Hoffmann (1998). Today, a major feature of organic farming is the network of producers and other stakeholders in the aspects of knowledge, information, regulation, controlling, research and marketing.

The underlying notion of organic farming does not confine it only in some particular practices; it also focuses on networking and cooperation between farmers, their farms and households, the farming community, the consumers and other stakeholders, and a farming system which will be sustainable in productivity, economically viable and socially just. Therefore, organic farming is considered to generate trust, cooperation and network among producers and other stakeholders; in other words it may produce a substantial level of social capital in the practicing farming community. The paper aims on examining whether a long-term practice of organic farming can generate the elements of social capital at least to some extent in the practicing farming community. Moreover, as it is now agreed by most of the researchers that a community's stock of social capital enhance its overall development and well-being, we also attempt to look into the situation of farming community's empowerment in the contexts of organic and conventional farming systems.

2. Methodology

2.1 Location of the study

Farmers of Bangladesh were the focus of the study. Tangail district of Bangladesh was primarily selected, whilst the study was conducted in Delduar sub-district (*upazila*), one of the total 13 sub-districts of the district. The selected area had a reputation for having a history of community based organic farming. Organic farming took its root in Delduar sub-district following the devastating flood in 1988, when *Ubinig* - a non-government organization, engaged in action research on alternative development issues, started encouraging farmers to reduce their dependency on off-farm inputs, particularly chemical fertilizers and pesticides. Many farmers, who were also participating in the NGO's action research programs that time, quickly responded the initiative. Farmers' enthusiasm on environmentally friendly and self-dependent agriculture encouraged the NGO to launch a particular form of organic farming - *Nayakrishi Andolon*, literally the new agricultural movement. Within a decade, the *Nayakrishi* became popular among the farmers of many villages in the area. According to Ubinig's official information, the *Nayakrishi* is by now has become a major organic farming movement in Bangladesh involving over 170,000

farm families (as in July 2005). During our on-field observation, we were informed that in some villages in the Delduar sub-district (the study area), as many as 70% farmers transformed their conventional farming practices into *Nayakrishi*. As *Nayakrishi* is being practiced by the farming community in these villages for more than a decade, we considered these villages as ideal locale for investigating social capital issues in the context of organic farming. Two villages of the sub-district were purposively selected for the study. Nallapara village was selected as a village for organic farming community, while Jalalya, a neighboring village, as for conventional farming community.

Nallapara is one of the villages in Delduar sub-district where the activities of *Nayakrishi* got started in the late 1980s. It is a large village with approximately 1,400 farming households and well communicated with the nearby city, the sub-district head quarter. Jalalya, the conventional farming village situated approximately 12 km north-western to the organic farming village, is also a village featured with good communication to nearby city and markets. This is smaller in size having approximately 260 farm households. We carefully selected these two villages for the present study considering the fact that farming was the dominant occupation and there are many similarities between the villages regarding geographical location, farming practices, occupation, communication and social infrastructure.

2.2 Population and sample

The farming households of the two selected villages constituted the population of the study. Fifty farmers from each of the villages were randomly selected for the purpose of data collection; therefore the total sample size was 100. However, for the sampling in organic farming village, we excluded the farming households which were not involved in organic farming and the number amounted to approximately 25% of the households.

2.3 Data collection

A structured questionnaire was used for collecting data from the respondents. As social capital is a new issue of research, the researcher needed some expert consultation during the course of development of the questionnaire. Before finalizing of the questionnaire, it was pre-tested with ten farmers in the study area.

Data collection was done by conducting face-to-face interviews with the selected farmers during 5 to 20 July, 2006. Besides the questionnaire survey, two group discussions were also held in the selected villages. The group discussions were conducted to collect general data regarding the villages and its community.

2.4 Measurement of variables

Measuring of social capital: Stocks of social capital in the farming communities under investigation were measured on the basis of three major elements of social capital, namely social network, social trust and social cooperation as norm. For measuring network in community and organizational life, we carefully selected four available indicators, which were used in Putnam's (2000) famous study on measuring social capital in the USA. The selected indicators included number of existing voluntary social organizations and groups in a village, size of the groups/organizations in terms of active membership, number of events held by a group/organization in a year, and average percentage of members attend in the events.

Both social trust and cooperation as norm were measured by developing appropriate scales. The scales were developed by following questions used in 'World Values Survey' (Knack and Keefer, 1997), while 16 elements were selected following the recommended social capital measurement tool proposed and used by Narayan and Cassidy (2001). Moreover, the elements were further categorized into three dimensions of social capital: bridging, bonding and linking social capital. The four bonding elements included family members, close relatives, peers and friends, and close neighbors, while the six bridging elements were: fellow farmers, group members, buyers and consumers, business partners, local and village leaders, and religious leaders. The linking elements were development workers (extension workers), politicians, local government, common public service providers (electricity, water, gas etc.), legal and judiciary system, and law enforcers (police and others). A 5-point Likert-type scale was used, where a respondent was asked to indicate her/his level of trust (and perceived cooperation) on each of the 16 elements (for example, "how much do you trust your family members?"). The respondent was to choose an appropriate answer from the five options, namely "insignificant/not at all," "low," "average," "more than average but not full," and "full/very large extent," while scores were assigned to these responses as 1, 2, 3, 4 and 5 respectively. Thus the obtained scores from a respondent's answers on concerning elements of a social capital dimension (bonding, bridging and linking) were added together to have total scores of the very dimension regarding trust and social cooperation as norm.

Measuring community empowerment: Empowerment is difficult to measure, and there is no agreed-upon method available for us. We have to develop appropriate indicators for having understanding any level of empowerment. In fact, choosing indicators of empowerment will depend of the way empowerment is defined. Empowerment is defined

in different ways, but there are some common elements to all definitions. Henderson and Thomas (1987) identify that “empowerment aims at the improvement of individual and collective skills to regain control over living and working conditions and their impact on well-being,” while Daly and Cobb (1994) define it as “a constant process enabling individuals and groups to take part in collective action.” Defining community level empowerment, Erben et al. (2000), in light of the aforesaid and other definitions, conclude that “empowerment refers to processes of social interaction of individuals and groups, which aim at enabling people to enhance their individual and collective skills and the scope and range of controlling their lives in a given community.” Most of the literatures on empowerment particularly focus on aspects like empowerment of groups, women, or in a context, while less focus was given on community level empowerment. Although there are a number of indicators available for community level empowerment, as summarized by Alsop and Heinsohn (2005), the indicators varied depending on objectives of study, socio-economic condition and level of understanding the concept. Taking the definitions and empirical studies recorded by them, considering the present study, we carefully selected 13 indicators to determine the level of empowerment prevailed in the concerned farming communities. Like the case of trust and cooperation, the selected indicators were placed in a 4-point rating scale, while the respondents were asked to indicate the level of their ability to decide on community issues or their access to common civic rights. For example, regarding availability of utility services, the question was “indicate the availability level of common utility services (water, sanitation and electricity) in your community.” A respondent was to indicate the most appropriate answer from four options, namely “poor or not good,” “less and beyond satisfactory,” “satisfactory or average” and “very good” while scores were assigned for these options as 4, 3, 2, and 1 respectively.

2.5 Statistical analysis

For analyzing the data, we used very common and simple statistical parameters such as number, average, mean and standard deviation. For comparing two samples regarding some variables, t-test for the difference of means was used.

3. Results and discussion

3.1 Social capital in the farming communities

In the following sections, social capital issue of the farming communities under the study area have been described in accordance with three basic elements: social network,

social trust and social norms.

3.1.1 Social network

A social network is an interconnected group of people who usually have an attribute in common. In order to make a simple analysis, we attempted to measure social network in the two farming communities by observing four criteria of voluntary social organizations and groups existed in the study area. The computation was made on the basis of information received from group discussion with the farmers and checking the record books of the concerned organizations. A summary of the observations has been presented in Table 1.

Table 1. Status of networking in the study area in terms of social organization and groups

Judgment criteria	Unit	Organic village	Conventional village
Existing social organizations and groups	Number	7	5
Size of organization and groups	Average number of members	21.5	9.2
Event held by organizations and groups	Average number of events/year	10.3	5.7
Status of members' participation	Percentage of members present	65%	40%

Source: Field survey (2006)

Data presented in the Table 1 clearly shows that considering all aspects, social networking in the organic village was stronger than that in the conventional village. The observed differences between the farming communities of the two villages regarding their social network may be explained by the intensive activities of *Nayakrishi* movement of the NGO (*Ubinig*) in the organic farming village. In reality, *Nayakrishi* workers of the NGO facilitate organizing farmers and their families in various ways. The organic farmers and farm families have some regular meetings (once a fortnight) where they discuss on a wide range of issues such as day to day farming activity, homestead gardening, afforestation, health and nutrition, and other issues related to their livelihoods. The organic farmer groups sometimes organize cultural events relating to their everyday life and agriculture, while many of their neighboring farmers and family members are used to attend those programs. Sometimes the NGO organizes guest cultural activists and folk groups join the events, which usually draw huge attendance from the villagers. During our survey to the village, we met two “fakirs” (spiritual folk singers in rural Bangladesh) who came from a distance of 400 km to join in such an event. Cultural programs are used as a strong media

for disseminating messages which is one of the radical working principal of Ubinig. This is why the NGO's movement in the study area is widely recognized as a cultural movement. It should be mentioned that the regular fortnightly meetings of *Nayakrishi* group members is the major cause of differences between the organic and conventional farming villages regarding number of events held by the organizations. As organic farmers (and neighboring conventional farmers) come close to each other in different meetings and events, they regularly share their ideas and experiences, and therefore gain higher awareness on socio-economic and livelihoods issues. This increased awareness might work as a good motivating factor for their increased participation in social programs and events. As all these organizational activities bring the people together under an interactive and dynamic social network, their stock of social capital definitely increases at the same time.

3.1.2 Social trust

The social trust is simply the level of confidence that people have that others will act as they say or are expected to act, or that what they say is reliable. Our study attempted to have an understanding of the existing level of trust in two contrasting farming communities. As mentioned before, social trust was measured on sixteen elements which included four bonding, six bridging and six linking elements. Results regarding the measured social trust in the two villages have been presented in form of the three social capital dimensions as shown in Table 2.

Table 2. Status of social trust in the two different farming communities

Dimensions and possible score range	Mean and standard deviation		t-value	Level of significance
	Organic	Conventional		
Bonding social capital (4-20)	15.40 (1.010)	14.36 (1.663)	3.779	.000
Bridging social capital (6-30)	19.66 (1.624)	17.68 (3.656)	3.500	.001
Linking social capital (6-30)	13.30 (2.073)	12.56 (3.667)	1.240	.218
Total social trust score (16-80)	48.36 (2.593)	44.60 (6.949)	3.585	.001

Source: Field survey (2006)

The table shows that, concerning trust, the organic farming community (or the farmers of organic village) possessed significantly higher stocks of bonding and bridging social capital than in conventional farming community. The close interaction between organic farmers and their solidarity with each other to continue organic farming may be

considered as an important reason for having higher level of trust in their community. Organic farmers have to rely on themselves for their farming practices, which increase their interaction in on and off farm activities including sharing knowledge and experiences, sharing information, problem solving, cooperation in sharing farm inputs, and optimizing maximum profitability by accessing marketing channels. These are not possible without having a substantial level of mutual trust because they operate organic farming in an adverse and unfriendly environment where they have face conflicts and constraints by the greater tradition of conventional farming in the society. Therefore the higher level of trust among the organic farming community is a logical reflection of their long-term involvement in organic farming. Although stock of linking social capital was found higher in organic village than that of the conventional farming village, the difference was not statistically significant. It implies that influence of elements from outside the community and upper hierarchy in formation of social capital did not significantly differ between the two villages. However, the difference in favor of the organic village may be attributed to the frequent visit and interaction of the *Nayakrishi* workers of *Ubinig*. Again, in terms of total social trust score, the organic village shows significantly higher score than that of the conventional village.

3.1.3 Social cooperation

Norms are perceived as ‘informal rules’ that condition behavior in various circumstances. In the present study, we interpret social norms in terms of existing level of cooperation among the members of society within common and traditional norms. It should be mentioned here that ‘civic cooperation’ was used as an indicator of social capital in cross country analysis of ‘World Value Survey’ (Knack and Keefer, 1997). Like in the case of social trust, the analysis was done considering the three dimensions of social capital. The finding regarding social cooperation in two villages is presented in Table 3.

Table 3. Status of social cooperation in two villages of the study area

Dimensions and possible score range	Mean and standard deviation		t-value	Level of significance
	Organic	Conventional		
Bonding social capital (4-20)	16.40 (1.412)	14.08 (2.009)	4.152	.000
Bridging social capital (6-30)	19.32 (1.544)	17.24 (3.572)	3.780	.000
Linking social capital (6-30)	11.90 (2.460)	12.12 (3.127)	-.391	.697
Total social cooperation (16-80)	46.62 (2.927)	43.44 (7.083)	2.934	.004

Source: Field survey (2006)

Data presented in the Table 3 show that, like the case of social trust, status of overall social cooperation in organic farming community was significantly higher than that in the conventional farming community. Considering both the bonding and bridging social capital, social cooperation in the organic farming community was found significantly higher than that in conventional farming community. It is assumed that practicing organic farming in group generates norms of cooperating each other in different situations. These cooperating situations include exchange of seed-stocks, building community seed bank, exchange of skills and other inputs, collective marketing effort, controlling organic production by group monitoring and surveillance etc. Although the conventional village seems to have higher stock of linking social capital, the difference was not statistically significant. Again the total social cooperation score and significant t-value confirms organic farming community's higher level of mutual cooperation than the conventional farming community.

3.2 Community empowerment

As it was already mentioned, there is no agreed-upon method available for measuring community level empowerment; we selected 13 appropriate indicators for the present study considering the study objectives and socio-economic situation of the study area. The developed scale value ranged from 1 (for less empowerment) to 4 (for high level of empowerment). The summary of the result has been presented in Table 4.

The data presented in the Table 4 clearly show that nine out of the total 13 indicators, the organic farming community was found enjoying higher level of empowerment in comparison to the conventional farming community. It is interesting to note that the four indicators (input availability, exercising voting right, healthcare services and emergency services), which did not significantly differ between the two communities regarding their availability and accessibility, are not directly related to NGO activities and even organic farming movement. However, an overall consideration of the villages implies that the higher level of community empowerment in the organic farming community may be associated to organic farming movement and the higher stock of social capital therein. Study of Erben et al. (2000), focused on relationship between community empowerment and social capital in the context of health promotion to social marketing, also supports the outcome of the present study.

Table 4. Situation of farming communities regarding selected indicators of empowerment

Indicators of empowerment	Mean value and standard deviation*		t-value	Level of significance
	Organic farmers	Conventional farmers		
Accessibility to market	3.60 (.535)	3.16 (.889)	2.999	.003
Input availability	3.34 (.593)	2.72 (.904)	4.054	.000
Availability of credit	3.20 (.693)	2.70 (.909)	3.182	.002
Education	3.50 (.544)	3.12 (.773)	2.843	.005
Recreation	2.54 (.734)	1.68 (.713)	5.943	.000
Utility services (gas, water, electricity)	3.36 (.478)	3.00 (.990)	2.187	.031
Drinking water and sanitation	3.82 (.388)	3.54 (.813)	2.197	.030
Exercising Voting right	3.60 (.535)	3.46 (.762)	1.064	.290
Legal right	2.16 (.710)	1.76 (.716)	2.804	.006
Social security	3.28 (.730)	2.54 (.930)	4.426	.000
Healthcare service	2.74 (.565)	2.48 (1.054)	1.537	.127
Access to information and extension service	2.70 (.647)	1.90 (.763)	5.657	.000
Emergency services	2.08 (.724)	1.86 (.857)	1.386	.169

Source: Field survey (2006)

*Figures in parentheses indicating standard deviations.

Conclusions

The findings of the study led to the conclusion that status of social capital in the farming community practicing organic farming was higher than that in the conventional farming community. While organic farming community had significantly higher levels of social capital concerning the ‘bonding’ and ‘bridging’ elements, no such conclusion could be made for the ‘linking’ elements. This implies that long time practice of organic farming strengthened networking, generates mutual trusts and enhanced cooperation among the practitioners and the village population. Moreover, higher level of empowerment in majority of the common indicators for the organic farming community indicates that this

level of empowerment might be associated with long-term practice of organic farming and existing levels of social capital in the community. However, it should be noted that, although assumed as representative to the whole country, the study was conducted in a particular area in Bangladesh and impact of external factors were not controlled to the full extent. Therefore a verification of the result might be helpful for arriving in a decisive policy implication. Nonetheless, the present study could be considered as a basis for policy implication and further empirical observations.

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