

## REACHING THE RURAL POOR THROUGH AGRICULTURAL COOPERATIVES IN MONGOLIA

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### ABSTRACT

*The paper is preoccupied with the cooperative sector in central Mongolia. Its aim is to provide new insights into the role and importance of cooperatives in regard to poor rural populations. In the paper we analyze the inclusiveness of smaller herders and farmers with in the cooperatives. The research is based on data collection in selected provinces of the Tov region. The data were collected for three distinctive target groups-cooperative board members, cooperative members and non-members/herders. We found that the cooperative sector in Mongolia is strongly affected by the governmental policy of wool subsidies, which allows subsidies only to cooperative members, and is thus potentially leading to very low levels of members self-identification with the cooperative due to big increases in the numbers of new cooperative members. This policy is potentially also affecting the inner organizational structure of cooperatives. Further, we have found suggestions that poorer herdsmen tend not to be members of cooperatives and overall benefits for non-members and the general community arising from local cooperatives are rather low.*

**KEY WORDS:** Inclusiveness, subsidies, small-scale herders

### INTRODUCTION

Two thirds of the world's three billion rural population live in a smallholder farming setting. Smallholder development and a prosperous smallholder sector is viewed as a cornerstone for reducing poverty in low income countries (World Bank, 2008; Hazell et al., 2010). Institutional improvements to help small farmers overcome the challenges of market failures and increase their empowerment are becoming relevant again; part of the strategies of national governments and international donors is a revival of the "modern type" of producer organizations and cooperatives. Various organizations, NGOs, governments,

policymakers and researchers are showing renewed interest in cooperatives as means of promoting sustainable growth and poverty reduction (for example Rondot and Collion, 2001; Chen et al., 2007; World Bank, 2008; Markelova and Mwangi, 2009). In conjunction with the work of governments and various organizations, they have the capacity to improve the welfare of poor rural population (Bernard and Spielman, 2008; Shiferaw et al., 2011). In connection with these arguments, cooperatives can potentially serve as an effective means of reaching the rural poor. But empirical evidence of their impact on the poorest members of the rural

communities and thus on the reduction of the worst forms of poverty is mixed. In conjunction with the work of governments and various organizations, they have the capacity to improve the welfare of the rural population (Bernard and Spielman, 2008; Shiferaw et al., 2011). Cooperatives are often connected with democratic collective action and therefore viewed as more inclusive than other institutional innovations designed to help the rural poor, such as contract farming for example (Verhofstadt and Maertens, 2012). In order for cooperatives to have an impact on improving the welfare of the poorest smallholder farmers, their membership base has to be inclusive and/or bring them some benefits. Numerous studies have tried to assess the extent onto which cooperatives are inclusive (Bernard and Taffesse, 2012; Fischer and Qaim, 2012). For instance, it has been found that human and social capital is closely linked to the extent of membership in such organizations (Hellin et al., 2009; Karli et al., 2006; Francesconi and Heerink, 2010). Some authors point out that poor members are often disadvantaged due to their lack of essential assets such as education, organizational skills or financial capacity (Hulme and Shepherd, 2003). Physical assets such as land and livestock ownership also play an important role as barriers for entry (Bernard and Spielman, 2008). Thorp et al (2005) summarize the main disadvantages of the poor in group participation as: Lack of assets, lack of access to markets and networks, lack of political rights and their dependence on external

interventions. Some authors observe the middle class effect, where the poorest as well as the richest tend not to be members of organizations due to limited gains compared to their initial wealth (Bernard and Spielman, 2008). Either way, the fact that cooperatives are, despite their inherent egalitarian values, to some extent exclusive, is rather obvious. In this paper we focus on small herders and extent of their participation in cooperatives in the Central region of Mongolia – Töv. The renewed interest in cooperatives is of particular importance to Mongolia as the official Rural Development strategy for Mongolia highlighted necessity for the support of herders' cooperatives in order to improve their conditions and welfare (Centre for Policy Research, 2002). According to the Mongolian Cooperative Law, the design of cooperatives should be done in a way to allow for the inclusion of poor herdsmen as well (The Civil Law of Mongolia. NR 258). However, the reality may be different. The authors of this paper take over the primary assumptions of Bernard and Spielman (2008), that in order for cooperatives to be able to effectively reach the rural poor, they must be inclusive of poorer members in at least one, or any combination of, these three cases:

- a) membership inclusiveness of the poorest members of rural communities
- b) benefits accessible to the poor, either directly or indirectly (spillover of benefits into society)
- c) organizational structure and decision making processes that represent the interests of poor

## **BACKGROUND**

In 1990 68% of herders were in collectives, while in 1996 90% of herders owned their livestock privately. The very rapid shock transition from command to market economy, together with a decrease in productivity and the generally difficult economic conditions of the new market, led to a revival of the idea of cooperatives as viable institutions for improving the livelihoods of the rural population. To support further the development of cooperatives, the Government Act N221 came into force in July 2013. In its second appendix, the Act states that only members of cooperatives are able to access the state subsidy for sheep wool. In the past, wool subsidies were available for non-members of cooperatives alike but this changed abruptly at the end of 2013. As to the recent research on the issue of cooperatives in Mongolia, most of the literature is preoccupied with the issue of the transition from command to market economy (for example

Abeywickrama, 1996; Bilskie, 2002; Nixson and Walters, 2004; Sheehy, 1996; Mearns, 2004). When directly addressing the issue of herders' cooperatives in Mongolia, numerous studies describe the old model soviet collectives (Humphrey, 1978) or look at the issue from a more theoretical perspective; such as the approach of trying to explain and illustrate the concept of community when dealing with risk management in cooperatives (Mearns, 1996) or the study of concepts of cooperation in the Mongolian environment in a more theoretical way (Cooper, 1993; Fernandez-Giménez, 2002). Another much reported issue directly related to the study of cooperatives is the topic of land rights (Fernandez-Giménez et al., 2008). While there are numerous studies focusing on the issue of cooperatives' capacity for effectively reaching the rural poor in various countries (Ortmann and King, 2006 for South Africa; Thuvachote, 2011 for Thailand;

Verhofstadt and Maertens, 2012 for Rwanda), there is no such study done in the context of Mongolia. This paper attempts to address this knowledge gap and to provide a framework for further study of whether and how cooperatives can help the poor and

rural development in the country. It aims to provide new insights into the role and importance of cooperatives in Mongolia in regard to reaching and benefiting the smallest herders and farmers.

## DATA SOURCES AND METHODOLOGY

The research was conducted in the province - Töv *aimag*. According to the NAMAC review of cooperatives in Töv *aimag*, there were 153 cooperatives registered with the NAMAC office in 2014. Out of these, 83 were operational in the year 2014 and 78 out of those were registered as agricultural cooperatives. Out of the 27 *soums* of Töv *aimag*, we randomly selected 7 *soums* where our data collection took place (Bornuur, Jargalant, Bayanchandmani, Erdene, Bayandelger Ondorshireet, Altanbulag). In each *soum* a number of cooperatives was conveniently chosen from a list provided by the regional NAMAC offices. A total of 25 cooperatives was approached. As a proxy indicator of the wealth of individuals in terms of assets we used the number of livestock owned, which seems to be an appropriate indicator in the cultural context of rural Mongolia. All animals were converted to an equivalent in sheep units, according to the methodology used in the NAMAC Report (2014). Three distinctive target groups for our data collection were selected and classified as: 1. cooperative board members, 2. cooperative members and 3. herders (non-members of cooperatives). For each of these groups a semi-structured questionnaire was prepared. In total we collected responses from 30 board members of cooperatives, 74 cooperative members and 87 non-members. Questionnaires and personal interviews were conducted during September 2014. The questionnaires were prepared individually for each of the three target groups and the structure reflected our three objectives. In the sections focusing on membership and inclusiveness mainly questions regarding the requirements for new members joining were asked. For the section on inclusiveness and benefits questions regarding the benefits arising from being a member of the cooperative were posed. On the level of herders/non-members, we tried to find out whether there were

any spill-over benefits from local cooperatives for them or what entry barriers they were facing if they were interested in joining local cooperatives. For our last section concerning inclusiveness and governance, the variables of education and the number of livestock owned were used when establishing a causal relationship to their participation in cooperatives. We performed a standard OLS estimation of the effects presented on collected cross-sectional data. The methodology also suggested pooling all the three samples and reporting their coefficients to find the impact of any particular effect. One might consider double checking the effects on the number of animals and income, hence, we decided to take into account both of these models.

We present the dependent variable in logarithmic form for weighted animal numbers and incomes respectively. The three groups (non-members, members and board members) are treated as follows: the members group are considered as the zero scenario, the particular effect (of being non-member or board member) on the dependent variable is presented as a regression table. As to the analysis, standard Classic Linear Model Assumptions are presented and tested, two of them are worth mentioning (one violated). Heteroscedasticity is strongly present in our sample, and the use of robust standard errors produces HC (heteroscedastic consistent) estimates. We tested the normality of residuals in our samples and the null hypothesis cannot be rejected for any of our estimations. Therefore, CLM assumptions were taken to be met. We are aware of the limitations of our data collection mainly due to the convenient sampling method, which limited the randomness of our sampling. Some cooperatives were inaccessible at that time and some refused intentionally to participate in the research.

## RESULTS

Reflecting our initial objectives, we organize the results section of this paper into three sub-sections.

### *Inclusiveness and membership*

Our first objective was to assess to what extent cooperatives are inclusive of smaller herders. The

indicators of the number of animals owned, education level and annual household income were used. We found a suggestion (See Table 2.) that smaller herders, less educated and with lower annual income tend not to be members of cooperatives.

Board members have higher annual household income and higher education. In Model 2 we were focussed on income changes, which resulted in a predicted 28% decrease of income for non-members, but a 45% increase for board members. The education signs are as expected (taking into account local economic standards). The overall model is strongly significant, the R-squared of about 11% can

be considered appropriate for such kinds of research. The estimation shows an interesting phenomenon, that increasing the level of education from primary to secondary brings an increase in the predicted income, but a decrease in the predicted number of animals in the community, which basically implies a shift in the income structure.

Model 2: OLS, using observations 1-188 (n=180)  
 Dependent variable: **I\_income**  
 Heteroskedasticity-robust standard errors, variant HC1  
 Legend: p-value < 0.01\*\*\* < 0.05\*\* < 0.1\*

	Coefficient	Std. Error	t-ratio	p-value
const	15.0011	0.225646	66.4805	0.0000***
non_member	-0.285586	0.169846	-1.6814	0.0945*
board	0.453292	0.231433	1.9586	0.0517*
Educ-secondary	0.503109	0.223996	2.2461	0.0260**
Educ-tertiary	0.156353	0.203088	0.7699	0.4424
Mean dependent var	15.40555	S.D. dependent var		1.090761
Sum squared resid	189.2595	S.E. of regression		1.039944
R square	0.111319	Adjusted R square		0.091007
F(4, 164)	5.513565	P-value (F)		3.33E-04
Log-likelihood	-259.9235	Akaike criterion		529.8471
Schwarz criterion	545.8119	Hannan-Quinn		536.3201

Following the non-member survey we found that the majority (88.5%) of respondents questioned declared that they had some sort of access to some cooperative in their area. However, 73.6% of them stated that they did not try to join. Among the prevalent reasons for not joining belonged: too high

initial entry fee and fear that membership would not bring them any benefits in return. Another reason declared was that with a smaller number of animals the benefits of being part of a cooperative would not be sufficient.

*Inclusiveness and benefits for members and non-members*

See Fig.1 for the specific benefits for non-members arising from local cooperatives. Among these, most often declared was the benefit of buying their production. We can see (Table 6) that cooperatives' major benefit for non-members is the purchase of their outputs. Only a small percentage of cooperatives provide other services to non-members. We found that 41% of cooperative members joined the cooperative only to be able to obtain governmental subsidies on wool. This is certainly an alarming situation in terms of the quality of Mongolian cooperatives as "bottom-up" established institutions supporting social capital, democratic collective decisions and business cooperation among the rural population. The majority of our respondents were also very new cooperative members, 80% joined only in the years 2012-2014.

Only 26% of respondents indicated actual cooperation among members, their specialization within the organization and their team spirit as advantages of being in a cooperative. When asked about whether they were familiar with any of the principle of cooperatives, 57.3% respondents answered negatively. Only 6.6% of respondents were able to state that cooperation among members was a cornerstone of the cooperative institutional set up. An overall low identification of individuals with the objectives of their cooperative was prevalent.

*Organizational structure and inclusiveness*

The last objective was to find out whether cooperatives disadvantage the poorer members in their organizational structure and in their access to decision making processes. The vast majority (82.4%) of members were not able to respond to the question whether they know any principle of the

cooperative and whether they could name any differences in governance between cooperatives and ordinary business companies. The Multinomial Logit model estimation demonstrates an increased probability of revealing the preferences of a member

in a general meeting. We consider the *vote* variable as slightly biased by such phenomena and we decided to use the *speak* variable as proper proxy for the unbiased behavior.

Model 3: Multinomial Logit, using observations 1-73 (n=64)

Dependent variable: **speak**

Standard errors based on Hessian

Legend: p-value < 0.01 \*\*\* < 0.05 \*\* < 0.1 \*

	Coefficient	Std. Error	z	p-value
const	-17.70010	5.249870	-3.3715	0.0007 ***
years_in	0.43482	0.159484	2.7264	0.0064 ***
coop_sell_perc	7.54840	2.902050	2.6011	0.0093 ***
sheep_adj	0.94174	0.468948	2.0082	0.0446 **
serv_count	1.21499	0.460535	2.6382	0.0083 ***
Educ-secondary	2.73495	1.256000	2.1775	0.0294 **
Educ-third	0.27818	0.884679	0.3144	0.7532
		S.D. dependent		
Mean dependent var	0.31250	var		0.467177
Log-likelihood	-22.91968	Akaike criterion		59.83936
Schwarz criterion	74.95154	Hannan-Quinn		65.79281
Number of case 'correctly predicted' = 52 (81.3 percent)				
Likelihood ratio test: $\chi^2(6) = 33.660$ [0.0000]				

The estimated effect is stronger and more positive as the percentage of production sold through cooperative increases. The secondary education effect is strongly present and shows a positive impact on active participation in the community.

Such participation is strongly increased by the number of sheep (motivated by potential subsidies) and the number of services provided to the member (motivated by a higher potential standard of living).

## CONCLUSIONS AND DISCUSSION

In their design, cooperatives are supposed to support small farmers to overcome market failures, decrease transaction costs, improve collective management of resources, help them fight together against natural disasters and address technical and financial problems. In other words, through stable democratic institutional arrangements to help them with the main challenges the farmers face during agricultural production and the commercialization of their outputs. During our research, we found only limited evidence that current cooperatives in Mongolia fulfill these roles. There has been a major increase in the number of members joining cooperatives in the last two years. Our explanation for this is the fact that most members joined cooperatives only to sell their production of wool and receive governmental subsidies. They are not aware of or do not care about the cooperative itself and do not know any of its principles. We found that this major increase in the

number of members led to very low levels of self-identification of members with the institution and to negligible social capital gains - crucial factors that many authors view as important for a group's success in fulfilling its aims. As Thorp et al (2005) state in their paper, the level of self-identification and shared ideologies within a group are an important factor for organizations to benefit the poorer members and to develop into sustainable and profitable businesses. We have assessed the extent to which cooperatives are inclusive of the poorer herdsman and found a clear suggestion that poorer and less educated herders tend not to be members of cooperatives. This is in line with the conclusion of some other authors (Bernard and Spielman, 2008; Thorp et al., 2005). Almost all the herders and farmers had access to cooperatives in their areas; however, the majority of them did not even try to join. Either because of the high entry fee or because

of the low expected returns they would derive from becoming members. When trying to see whether the cooperatives benefit the general community and non-members as well, we found that only a small portion of the cooperatives questioned provided any benefits to non-members. If they did so at all, in the majority of case this was only buying their outputs, which in turn might negatively influence the sustainability of cooperatives due to the increasing free-rider effect. Only a small percentage of cooperatives help the community in any other way. The data collected concerned with organizational structure and decision making processes showed a strikingly low number of members who took part in voting on cooperative issues. Our data shows that the percentage of production of a member sold through a cooperative, the number of sheep and the total number of animals owned by that member have a statistically significant effect on participation in decision making in cooperatives. We found the more animals a member owns and the more he/she was selling through a cooperative, the more often he/she had participated in any decision at any general meeting of the cooperative. One of our most important findings is the one connected to the governmental sheep wool subsidies. We need to emphasize that our data on this topic is limited; however, they do provide suggestions that this particular policy could possibly have done harm to the proper functionality of cooperatives as democratic member-driven institutions dedicated to helping herders and farmers improve their welfare. As Chirwa et al. (2005) state in their paper, it is important for any form of external support to be committed to over a long period of time and not put pressure on organizations to expand swiftly. The authors warn against the subversion and disruption

of the ability of cooperatives to genuinely serve its members, if external support is not provided in a careful way. Similar conclusions were reached by Bernard and Taffesse (2012), who show that external governmental policies towards cooperatives lead to changes in their membership structures that may potentially jeopardize their capability to fulfill their primary objectives. Thorp et.al (2005) also mention the risks of failure when external support is introduced for group formation. The policy of wool subsidies could potentially have this effect; however, it is quite new and its effect on the cooperative sector has not yet been studied thoroughly. To offer some recommendations, firstly, we would like to stress the importance of assessing the effect of state wool subsidies and possibly adjusting their legal framework. At the moment there is no study concerning the effect of state subsidies on cooperatives. As Chirwa et al. (2005) state in their paper, external support should be handled carefully and should not rush cooperatives into over-rapid expansion. Secondly, the Mongolian cooperative movement should ensure that the democratic principle is an integral part of cooperative development. The members should be encouraged to build stronger relationships within each cooperative by active participation and voting in important and minor decisions. This recommendation is in line with the conclusions of Shiferaw et al. (2011), who stress the importance of the provision of targeted support for the enhancement of participatory governance in cooperatives. Thirdly, cooperatives should provide some kind of training to its members, possibly in coordination with state or private extension services to ensure the higher loyalty of its members and a higher level of self-identification with them.

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