

Assessment of Impact of Cooperative on Livelihood of Its Members in Mid-western Development Region of Nepal

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Abstract

Cooperative functions with the guiding philosophy of group principle, self-help development and institutionalization of networks at the grassroots level to reduce poverty. A cooperative is guided by democratic norms and values which is shared by the members who empowered with one member one vote for the general assembly purpose. The major objective of this study is to assess the impact on livelihood changes of members after involvement in cooperatives. This study applied a descriptive and analytical research design.

A number of remarkable contributions of cooperative include: saving collection, credit investment and socio-economic improvement its member and society. The cooperatives function for socio-economic development with the strong policy of being a nonpolitical and unbiased with no discrimination of any kind on religion, caste and gender basis. Study shows that the average land holding for cultivation purpose has increased after joining the cooperative. The socio-economic status of cooperative members has changed through income generation activities. In this study, the assessment shows that the income and expenditure both have increased after membership.

Keywords: Assessment, Caste, Cooperative, Impact, Livelihood, Small Farmer Cooperative (SFC).

I. INTRODUCTION

The cooperative movement started from the philosophy of cooperation, joint effort and later developed as a prevailing instrument to support to improve socio-economic status of resource poor, helpless, members of the lower caste people, women, labors and farmers. The Constitution of Nepal (2015) has considered cooperative sector as an important pillar for national economic development together with public and private sectors. In Nepal, the cooperative concept was emerged in 1953.

Cooperative is not a new system in Nepali society. Before 1950, various informal institutions had been established in Nepal such as Parma (mutual labor exchange), Guthi (religious trusts) and Dharma Bhakari (religious-oriented food grain stores), which have helped to develop the concept of cooperation. The modern history of cooperative development began in Nepal after the establishment of Department of Cooperative in 1953. The formal genesis of the cooperative can be traced back to April 2, 1956 with the foundation of Bakhapur credit cooperative in Chitwan district. The cooperative movement is found to be started only after the establishment of democracy in 1990. The democratic government enhanced the cooperative Act 1992 and cooperative rules 1993. After the declaration of Republican country, Government of Nepal established a separate Ministry of Cooperatives. The National Cooperative Policy 2012 of Nepalese Government has established (Sharma, 2017). This Policy has noted a historical importance in sustainable development of Nepalese society through cooperative model.

The International Cooperative Alliance (ICA) statement on the cooperative identity in 1995 Congress and General Assembly has defined cooperative as an autonomous association of people united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. Cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. Generally, cooperative members believe in the ethical values of honesty, openness, social responsibility and caring for others (Prakash, 2003).

The main goal of cooperative organizations is to improve socio-economic status of rural people by creating cooperation and mutual support among one other. Basic features of cooperatives are to organize community people into the groups, collect savings for the loan investment and social activities, share ideas on community social and economic development,

empower grass root people, grasp financial resources, access technical assistance from the related other development agencies, to develop self-operating financial institutions at the local/village level. Therefore, the cooperation means association of a number of people in enterprises for mutual benefits. The motto of cooperation is 'each for all and all for each'. Cooperation was developed as a universal instrument of creation to release workers from exploitation and retain benefits for themselves (Neupane, 2006).

In 1995, the ICA adopted the revised Statement on the Cooperative Identity which contains the definition of a cooperative, the values of cooperatives, and the seven cooperative principles. Cooperatives trace the roots of these principles to the first modern cooperative founded in Rochdale, England in 1844. Cooperative strictly follows seven principles like voluntary and open membership, democratic process, financial contribution from members, freedom of autonomy and independence, education & regular training, cooperation among cooperatives and concern for community to promote and strengthen their institution to achieve the major goal of socio-economic development all over the world (Devekota, 2009).

The major challenges faced by the cooperatives are: increase of large numbers of non-viable cooperative, few members' involvement in economic activities, lack of suitable financial resources, lack of cohesiveness among members, politicization in the cooperative and weak managerial capacity. However, this study attempted to analyze and understand the livelihood changes of the SFC members. The appreciations by this study would be useful to revitalize SFCs in coming days.

II. METHODOLOGY

This study applied a descriptive and analytical research design in the specific area. For the study purpose, both quantitative and qualitative data are collected from the field. Relevant literature is used as required by this research topic and later on tried to generalize it. Various books, articles and periodical journals related to the topic are also reviewed for the making of this article. Purposive sampling technique was used to select the Small Farmer Cooperative (SFC) established by the different caste, areas, constituency of Mid-western Region of Nepal. Besides, member of cooperatives were selected by using the lottery system of simple random sampling without replacement. This was done to obtain an unbiased and fair study. Data was collected from the

570 members of sampled SFCs. The present study primarily relies upon primary as well as secondary data. Data collections have been carried out through the structured questionnaire, key informant interview and focused group discussion. Use of paired t-test and correlation(r) provides determination of dependent and independent variables for analysis of data.

III. RESULTS AND DISCUSSION

There are different categories of cooperatives registered under the Department of Cooperative of Nepal. Currently, according to the Department of Cooperatives there are 32,663 primary cooperatives (DoC, 2015). Giving to the National Cooperative Federation of Nepal (NCF/N), there are 19 central level cooperative unions, one national cooperative bank and their apex level national cooperative federation is in existence (NCF/N, 2015). Some of them have been established with zero investment and some with large investment in Mid-western Region of Nepal. Altogether 3,621 cooperatives were formed in this study area. Among them, 982 are saving & credit cooperatives, 512 are multipurpose cooperatives, 1492 are agriculture, 72 are milk cooperative, 264 are consumer, 28 are electricity, 27 are fruits and vegetables, 2 are coffee, 73 are herbal, 20 are bee-farming, 17 are communication, 13 are health and 119 are others cooperatives (DoC, 2015).

According to the Statistics of Cooperative Enterprises (Department of Cooperative) 2015, in the Mid-western Development Region, total 1492 Agriculture cooperatives are registered of which 188 are in Banke, 279 in Surkhet, and 48 in Jumla and other excess agriculture cooperatives are existent in different districts of Mid-western Region. Small Farmers Cooperative (SFCs) is together with agriculture cooperative. Among total 34 SFCs, 10 SFCs in Banke district, 22 SFCs in Surkhet district and only 2 SFCs are functioning in Jumla district. Only seven sampled SFCs are taken for this study.

There are a total of 7079 share members, of which 5551 are female and 1528 are male from seven sampled cooperatives in three (Banke, Surkhet and Jumla) districts. Only 570 households of 7079 share members are taken as sample unit while gathering the data collection for information. Each sampling unit from member of cooperatives is selected by lottery system and by simple random sampling without replacement. This was done to obtain a fair as well as unbiased study.

The objective of this study is to present how cooperatives are improving livelihood changes of

members. The variables- land holding of cooperative members before and after membership, average annual income of members before and after membership, average annual expenses of members, are taken into consideration. Averages mean of before and after, correlation (r) and other analysis part t-value and p-value are calculated for the interpretation of result.

A. Impact on Land Holding of Surveyed Households

The conversion of land unit (1 Kattha = 0.034 hectare or 3638.20 sq.ft) was found in the study area. Table 1 shows that average land holding for housing purpose was found to be 1.061 Katthas before household joining the cooperative while it increases slightly 1.062 Katthas after the joining cooperative. However, a marginal increment in the average land holding for housing was found where, the difference is not significant. The Paired t-value is (-0.258), P-value is (0.797). Therefore, at 5% of level of significance.

The result shows that average land holding of own land cultivated purpose was found to be 10.418 Katthas before joining the cooperative while it decreases to 7.409 Katthas after joining the cooperative. It shows that the average cultivated own land holding has been decreased significantly. The Paired t-value is (7.364), P-value is (0.000). Therefore,

Table 1 Impact on Land Holding of Surveyed Households

Heading	Before	After	Paired	P-value
	Mean	Mean	t-value	
Housing Land (Own)	1.061	1.061	-0.258	.797
Cultivated Land (Own)	10.418	7.409	7.364	.000
Cultivated Land (rented in)	3.374	3.846	-3.131	.002
Cultivated Land (rented out)	0.228	3.292	-7.530	.000

Source: Field Survey, 2015

at 5% of level of significance. However, the reason of land decrease is not due to the cooperative membership, it may be because of some other factor such as sale of land for child education, business and urbanization.

The result indicates that the average cultivated land (rented in) for cultivation purpose is

found to be 3.374 Katthas before household joining the cooperative while it increased to 3.846 Katthas after the join cooperative. It shows that there is an increase in the average cultivation land holding. The Paired t-value is (-3.131) and P-value is (0.002). Therefore, at 5% of level of significance. Hence, the difference in cultivated land (rented in) is significant. It is clear that there is an impact of cooperative.

The result shows that the average cultivated land (rented out) is found to be 0.228 Katthas before household joining the cooperative while it increased to 3.292 Katthas after joining cooperative. It shows that there is an increase in the average cultivated land (rented out). The Paired t-value is (-7.530) and P-value is (0.000). Therefore, at 5% of level of significance.

According to Nepal Living Standards Survey (NLSS-III 2010/11), the average size of agricultural land-area per agriculture household with land in country is 20.710 Katthas (0.70 hectares) while the average own cultivated land holding household is 7.409 Katthas (0.250 hectare). Compare with these two situations there is a vastgap of the own cultivated land holding households in the study area.

Finally, the study shows the impact in case of rented in cultivated land. This shows that the average land holding for cultivation purpose has increased after joining the cooperative. This could be possible because of their capability to invest for the purchase of inputs to increase the yield. For instance, ability to purchase new varieties of seeds or chemical fertilizer and receiving the financial and capital facilities by various large scale land holders could have impacted the community people for joining the cooperative.

B. Average Annual Income of Surveyed Households

Table 2 shows that average annual income of surveyed households before and after joining the cooperative is found to be NRs. 313936.84 and NRs. 587188.94 respectively. The paired t-value is (-15.53), p-value is (0.000). It is found that increment in the average annual income from different sources of cooperative member, the variance average annual income is statistically significant. Therefore, it indicates positive impact of cooperative.

Table 2 Average Annual Income of Surveyed Households

Particulars	Before		After		Paired (t-value)	P-value
	Mean	Std. Deviation	Mean	Std. Deviation		
Total Average Annual Income	313936.84	233845.26	587188.94	501002.59	-15.53	.000
<u>Caste-wise Average Annual Income</u>						
Brahiman/Chhetri	334145.16	264727.18	666950.14	542917.60	-13.16	.000
Janajati	281947.20	170699.07	462429.81	450463.86	-6.29	.000
Dalit	257944.44	127276.76	438916.66	229252.43	-7.61	.000
Others	405571.42	300776.61	651071.42	331759.75	-4.89	.000

Source: Field Survey, 2015

Table 2 shows that caste-wise, average annual income of Brahiman/Chhetri before and after is found to be NRs. 334145.16 and NRs. 666950.14 respectively. The paired t-value is (-13.16), p-value is (0.000). It is found that increment in the average annual income from different sources of Brahiman /Chhetri cooperative member, the variance of average annual income is statistically significant.

Likewise, before and after average annual income of Janajati is found to be NRs. 281947.20 and NRs. 462429.81 respectively. The paired t-value is (-6.29), p-value is (0.000). It is found that increment in the average annual income from different sources of Janajati cooperative member, the variance of average annual income is statistically significant.

Similarly, before and after average annual income of Dalit is found to be NRs. 257944.44 and NRs. 438916.66 respectively. The paired t-value is (-7.61), p-value is (0.000). It is found that the increase in the average annual income from different sources of Dalit cooperative member, the variance of average annual income is statistically significant.

In the same way, before and after average annual income of others caste is found to be NRs. 405571.42 and NRs. 651071.42 respectively. The paired t-value is (-4.89), p-value is (0.000). It is found that the

increase in the average annual income from different sources of others caste cooperative member, the variance of average annual income is statistically significant as well.

Reasons for increment in income after involvement of the member in cooperative are the use of modern technology in agriculture and livestock, hybrid seeds facilities, easy access of loan to farmers for different purposes, vocational training, exposure visit, study observation and so on. Therefore, the cooperative sector have been playing vital role to increase the income of the member for high productivity from different sectors for economic development.

C. Average Annual Expenditure of Surveyed Households

Table 3 shows that the before and after total average annual expenditure of the surveyed households is to be NRs. 116799.47 and NRs. 184726.49 respectively. The paired t-value is (-10.40), p-value is (0.000). It is found that the increase in the average annual expenses on agriculture product, livestock, food and non-food items are statistically significant. Therefore, it is the positive effect of cooperative society.

Table 3 Average Annual Expenditure of Surveyed Households

Particulars	Before		After		Paired (t-value)	P-value
	Mean	Std. Deviation	Mean	Std. Deviation		
Total Average Annual Expenditure	116799.47	45406.89	184726.49	169447.43	-10.40	.000
<u>Caste-wise Average Annual Expenditure</u>						

Brahiman/Chhetri	121177.41	48885.47	201858.65	209097.28	-7.58	.000
Janajati	111293.16	41731.62	162685.09	79815.24	-11.78	.000
Dalit	104462.96	32226.03	143037.03	52173.04	-10.58	.000
Others	121071.42	23289.03	181714.28	52752.58	5.05	.000

Source: Field Survey, 2015

Table 3 indicates that the caste-wise, before and after average annual expenditure of Brahiman/Chhetri is found to be NRs. 121177.41 and NRs. 201858.65 respectively. The paired t-value is (-7.58), p-value is (0.000). It is found that increment in the average annual expenditures in agriculture product, livestock and food and non-food items of Brahiman/Chhetri cooperative members, the variance of average annual expenses is statistically significant.

Likewise, before and after average annual expenditure of Janajati is found to be NRs. 111293.16 and NRs. 162685.09 respectively. The paired t-value is (-11.78), p-value is (0.000). It is found that increment in the average annual expenditures on agriculture product, livestock and food and non-food items of Janajati cooperative members, the variance of average annual expenses is statistically significant.

Similarly, before and after average annual expenditure of Dalit is found to be NRs. 104462.96 and NRs. 143037.03 respectively. The paired t-value is (-10.58), p-value is (0.000). It is found that increment in the average annual expenditures on agriculture product, livestock, food, and non-food items of Dalit cooperative members, the variance of average annual expenses is statistically significant.

In the same way, before and after average annual expenditure of others caste is found to be NRs. 121071.42 and NRs. 181714.28 respectively. The paired t-value is (-5.05), p-value is (0.000). It is found that increment in the average annual expenditures on agriculture product, livestock food, and non-food items of others cooperative members, the variance of average annual expenses is statistically significant as well.

The reason of increase in agriculture product, livestock, food and non-food items expenses after involvement of the member in cooperative is that income rising programs are effecting such as modern technology, hybrid seeds facilities, easy access of loan to farmers, vocational training in interested field in agriculture and non-agriculture sector, exposure visit

and study observation etc. are increased annual average income then its' positive outcome on increases in wide-ranging of the annual average expenses of cooperative member. Members properly utilize the loan amount of cooperative in productive sector. Hence, the cooperative sector had been playing a vital role to rise in expenses for improving the living standard of the cooperative member.

D. Caste-wise Correlation between the Different Variables of Surveyed Households

The observed p-value (significant value) of Pearson Correlation Coefficient (r) is compared with 0.05 significant levels and 0.01 significant level. Table 4 shows the caste-wise relationship between before and after annual average income and annual average expenses of SFC member. The relation between before annual average income and after annual average income in Brahiman/Chhetri, (r) is (0.512), p-value is (0.000), in Janajati, (r) is (0.647), p-value is (0.000), in Dalit, (r) is (0.656), p-value is (0.000), in others, (r) is (0.828), p-value is (0.000). Hence, there is significant correlation observed that there is a strong positive correlation between before annual average income and after annual average income in all the category of caste. It is found that there is a greater relationship of these variables of cooperative members which are statistically significant.

The main reason of association with these two variables is that before level of income is determined after the level of income of the cooperative member. Due to the user-friendliness to develop the agriculture and livestock sector of modern technology, seeds facilities, and easy access of loan to members, vocational training, and exposure visit and study reflection etc. annual average incomes are increased after involvement in the cooperative. Therefore, the cooperative sectors have been playing an active role to increase income with high productivity of a cooperative member.

Table 4 Caste-wise Correlation between the Different Variables

Relationship	Caste	Correlation(r)	P-value	Remarks
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Before annual average income with After annual average income	Brahiman/Chhetri	.512	.000	Significant
	Janajati	.647	.000	Significant
	Dalit	.656	.000	Significant
	Others	.828	.000	Significant
Before annual average income with Before annual average expenses	Brahiman/Chhetri	.423	.000	Significant
	Janajati	.585	.000	Significant
	Dalit	.456	.001	Significant
	Others	.409	.146	Insignificant
Before annual average expenses with After annual average expenses	Brahiman/Chhetri	.367	.000	Significant
	Janajati	.758	.000	Significant
	Dalit	.905	.000	Significant
	Others	.532	.050	Significant
After annual average income with After annual average expenses	Brahiman/Chhetri	.271	.000	Significant
	Janajati	.653	.000	Significant
	Dalit	.462	.000	Significant
	Others	.251	.386	Insignificant

Source: Field Survey, 2015

The relation between before the annual average income and before annual average expenses in Brahiman/Chhetri, (r) is (0.423), p-value is (0.000), in Janajati, (r) is (0.585), p-value is (0.000), in Dalit, (r) is (0.456), p-value is (0.001), in others caste, (r) is (0.409), p-value is (0.146). Hence, significant correlation is observed that there is positive correlation between before annual average income and before annual average expenses in Brahiman/Chhetri, Janajati and Dalit caste. It is found that there is medium type relationship of these variables of cooperative member which is statistically significant. But, in others caste, it failed to reject the null hypothesis, that there is no correlation between before annual average income and before annual average expenses. It is found that there is no relationship of these variables of cooperative member is statistically insignificant.

The main reason of relationship with these two variables is that before income level is guided to before expenses of cooperative member. Before average expenses is to depend on before average income of member. Hence, level of income is determining the expenses capacity of cooperative member.

The relation between before and after annual average expenses in Brahiman/Chhetri, (r) is (0.367), p-value is (0.000), in Janajati, (r) is (0.758), p-value is (0.000), in Dalit, (r) is (0.905), p-value is (0.000), in others caste, (r) is (0.532), p-value is (0.050). Hence, significant correlation is observed between before annual average expenses and after annual average expenses in Janajati, Dalit and others caste but in Brahiman/Chhetri that there is a weak correlation between these two variables. It is found that there is higher relationship of these variables of cooperative member is statistically significant.

The reason of relationship with these two variables is that before average expenses level is decided after the average expenses of a cooperative member. Before average expenses amount is determined after the average expenses capacity of member. Cooperative delivers the different facilities of income growing activity to encourage the rising of expenses for improving living standard of member after the involvement in cooperative.

The relation between after annual average income and after annual average expenses in Brahiman/Chhetri, (r) is (0.271), p-value is (0.000), in Janajati, (r) is (0.653), p-value is (0.000), in Dalit, (r) is (0.462), p-value is (0.000), in others, (r) is (0.251), p-value is (0.386). Hence, there is a significant correlation observed that there is positive correlation between after annual average income and after annual average expenses in Brahiman/Chhetri, Janajati and Dalit caste. It is found that there is a medium type relationship between these variables of cooperative member is statistically significant. But, in others caste, that there is no correlation between after annual average income and after annual average expenses. It is found that there is no relationship with these variables of cooperative member is statistically insignificant.

Main reason of relationship with these two variables is that after average income level is determined after the average expenses of cooperative member. Because, the accessibility of modern technology, easy access of loan facility, vocational training for agriculture and non-agriculture area has increased annual average income after the membership. Hence, the cooperative sectors have been playing a vibrant role to increase income for

improving the life style of member through higher expenses.

This study covered only the aspects related with impact on land holdings, average income, average expenditure of surveyed households and caste-wise correlation between the different variables. This study relies on data collected from individual sample members from sampled districts and surveyed households.

IV. CONCLUSIONS

In comparison of income increment before and after the membership, the SFC has been playing a vigorous role to increase the income for high productivity from different sectors for an economic development through cooperative. Likewise, the expenditure has increased after the membership and average expenses in different heading have increased after the membership. There seems to be significant internal and external reason in this expenditure increment while comparing previous and present one. Satisfactory progress in agricultural farming, livestock, small business, assisted by foreign employment and increasing consumption rate with family member, are considered as internal causes while increment in price of goods and services are considered as external cause. Behind the increment in expenditure, the inflation has played an important role. However, increment in income and family size, lifestyle and fashion are considered to assist another internal causes.

The cooperative sectors have been playing a vibrant role to rise the expenses of members for improvement of the living standard as well. Members' living standard is going to improve after the involvement in cooperative in the study area. Most of the members keep their opinions that the change of their lifestyle and standard is good. Hence, we conclude that majority of the members possesses 'good' living standard after the membership of cooperatives but not 'better'.

This research has conducted paired t-test and correlation on income and expenses to examine

functional relationship between these variables for livelihoods change of members after the involvement in cooperative. Apart from these, the rest of areas for further study to examine correlation between other dimensions of livelihood change of community peoples are yet to be studied.

REFERENCES

- [1] ADBL. (1993). By-laws of Small Farmers' Cooperative Limited. Kathmandu: Agricultural Development Bank Limited.
- [2] Badal, K. (2007). Cooperative Principal and Uses Publisher, Cooperative Help Group, Kathmandu, Nepal.
- [3] CBS. (2011). Nepal Living Standard Survey-III 2010/011. Kathmandu: Central Bureau of Statistics.
- [4] Co-operative Act-2048 (1992), National Co-operative Development Board Act-2049(1993) and Co-operative Rules-2049 (1993). Kathmandu: Law Books Management Committee, Ministry of Law, justice and Parliamentary Affairs, Government of Nepal.
- [5] Creswell, John W. (2009). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (Third ed.). New Delhi: SAGE Publications India Pvt Ltd.
- [6] Devkota, K. (2009). Institutional and Financial Sustainability of Small Farmers' Cooperative in the Hill of Nepal, A Ph.D. dissertation of Faculty of Humanities and Social Sciences. Kathmandu, Nepal: Tribhuvan University.
- [7] DOC. (2015). Statistics of Cooperative Enterprises. Kathmandu: Department of Cooperatives.
- [8] GON. (2012). National Cooperative Policy, 2069 B.S. The Cooperative and Poverty Alleviation Ministry, Government of Nepal, Government of Nepal.
- [9] Kothari, C.R. (2004). Research Methodology. Methods & Techniques, Second Edition. New Delhi: New Age International Publishers.
- [10] NCF/N. (2015). Concept Paper of First National Cooperative Congress. Kathmandu: Nepali Times.
- [11] Neupane, S. R. (2006). Cooperative Movement: A People based Development Approach, it's Role in the Economy of Nepal, unpublished Ph.D. thesis of Economics. New Delhi, India: Jamia Millia Islamia (Central University).
- [12] Prakash, D. (2003). The Principles of Cooperation: A look at ICA Cooperative Identity Statement, Padma-Network International. New Delhi, India.
- [13] Sharma, K. R. (2017). Development of Cooperative in Nepal Historical Prospect. Gantayabya (Nepal University Progressive Teachers' Association), Kathmandu, Annual Journal, Vol. 1, Issue No.7.
- [14] Thakuri, C. B. (2010). An Anatomy of Cooperative Movements in Nepal. Kathmandu, Nepal: Upkar Prakashan.
- [15] Tiwari, L. (2015). Role of Small Farmers Cooperative Limited (SFCL) in the Economic Development of Surkhet District, Nepal, A M.Phil. Dissertation of Faculty of Humanities and Social Sciences. Kathmandu, Nepal: Tribhuvan University.