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Assessment of Agricultural Extension Activities and services on performance of cooperatives. (Wad-Ramli Cooperative –Khartoum North)

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Abstract: This study was conducted in Wad/ Romli agricultural cooperative in Khartoum North locality during 2017 – 2019. The study aimed to assess the impact of the agricultural extension activities and services provided on the performance of cooperative members, and measure their attitudes towards these activities in increasing their income. The social survey method was used to collect primary data from the members of the cooperative using structured questionnaire, (292) members were selected randomly from the homogenous population of the study (1200), using standard formula for determining the sample size. The data was analyzed by computer based on the Statistical Package for Social Science (SPSS) using different statistical procedures, descriptive statistics, frequency and percentage distribution, Likert scale, and chi-square test. The results showed that there is a relationship between agricultural extension activities and services provided, such as farmers' field schools, extension messages, and training courses. The likert scale showed that the attitude of members towards these activities is positively. Based on these results the research recommended the following:
Intensifying extension activities and services, and educating members about this benefit through training courses. Also monitoring and evaluation of agricultural programs is recommended.
Keywords: cooperative societies, principle, benefits of cooperatives, Wad/Ramli cooperative.

Introduction: Agriculture and agricultural extension service facing numerous problems in present times, where good solutions are not easy to find, providing of agricultural extension activities is important to stimulate the development of agricultural production. Agricultural extension activities must provide an effective link between holdings-producers, agricultural research and other sources of information, and must be aware of psychosocial and social aspects of group action and individual counseling. Extension services in agriculture are indispensable to offers not only expert assistance in

improvement of production and agricultural processing; but also enables flow of informations, transfer knowledge and scientific findings to practice. These activities are performed according to rules which regulate the establishing of the organization, functioning, goals, field of operation, ways to execute activities by the extension agents, their obligations and rights. (Zivkovic ,2009).

Agriculture Extension is generally described as a process and a system in which information, knowledge, and skills relating to farming practices are transmitted through various channels and methods to its clients, (Ministry of agricultural .govt- of India, 2007) .To form a cooperative society, it becomes the responsibility of the extension agents to organize such a people even if the people took their initiative of organizing a cooperative society they will need the support and advice of the extension agents, who is seen by the rural communities as a spokesman of the government, Abdel Aal, (2007)

Some of the problems faced by agricultural cooperatives are poor management, lack of capital resource, inadequate training extension and education programme, lack of communication and participation among members , unclear and inadequate government policies in the development of agricultural cooperatives , high fragmentation of land holdings, and weak linkage among the activities of the cooperatives , e.g production ,credit , marketing , etc .To overcome such problems, the measures must be taken by the government to re-assessment and improvement of farm policies , human resources development through formal and informal training of the members (Daman, 2003).

Cooperatives in most part of Africa are state institute and state organized bodies. Abdel Aal, 2007 state that agricultural extension services in Egypt transfer agricultural information primarily to the public sector with small private sector component; it plays a very significant role in enhancing agricultural performance and agricultural production in Egypt.

According to Parakash ,(2003) in order to improve the situation to connect the information of extension activities ,Japan agricultural development extension Association (JADEA) established a system that could share information by most extension advisers , is that formulation of extension information activities by using computers which has been more important, efficient and effective

Indian made impressive progress in the application of Information Computer Technology (ICT) programs Saroj, (2016).

The China Agricultural Extension Special Programme is an initiative to support extension practitioners and farmers in china to set up profit-sharing cooperatives to improve agricultural productivity (Selim Jahan, 2011). Muneer, (1989) also mentioned that, cooperatives are based on values of self-help, self-responsibility, democracy, equality, equity and solidarity. The main objectives for people to set up or join cooperatives is to improve their economic and social condition

In Sudan there is an increasing emphasis on the role that agricultural cooperatives can play in the development of the agricultural sector. This is reflected in the government policy of establishing new agricultural cooperatives, rehabilitation of suiting ones and the conversion of some of the government agricultural schemes to agricultural cooperative owned by farmers. (El Hassan, 2004). Al- Otaibi 2007 stated that, the history and importance of agricultural cooperatives organization in Sudan is a long standing one – the beginnings of the Sudanese cooperatives movement was Wad Ramli Agricultural Cooperative, established in 1948 as the first agricultural cooperative society, then Al-

doum cooperative society in 1969 , Abu-Zemam Cooperative in 1990 Abu- Halima cooperative society in 2011 , ect. Although – the agricultural cooperative in the Sudan have been established on (1949) but still there is alack development in the living standard of their member's

So the main objective of this paper is to assess the impact of agricultural extension activities in Wad-Ramli agricultural cooperative on the performance of their members in increasing their income and their attitude towards the benefit from the agricultural extension services provided to them.

Material and methods: This study was conducted in the northern part of Khartoum state (Bahri) in Wad Ramli agricultural cooperative, at Wad Ramli village. The most important crops grown are onions, tomatos, faba beans, bananas, potatos, wheat and some important fodders.

The study population is the registered members in the cooperative (1200 members).Simple random sampling technique was used to conduct the research, depending on the homogeneity of the research community using standard formula for determining ample size (292).

Secondary data were obtained from documents analysis, using in depth review of related literature from the internet and up-to date extension services reports of Wad Ramli Agricultural Extension Office, published articles and books, reports of government and non government organizations, archive of stake holders organization and some media reports.

Primary data were collected from the target population using structured questionnaire.

The data collected was analyzed by computer based on the statistical package for social science program (SPSS) using frequency distribution and percentage in order to describe their participation in these activities provided to them which include : (1) (Agricultural extension activities: farmers field school, demonstration fields, field and offices visits, training courses and extension messages. (2) Agricultural extension services: (farm management, inputs provided, credit, marketing services and advance technologies used. chi-square test to measure the relationship between the agricultural extension activities and the increase income of the members, and assess to indicate the impact of these activities on the performance of the members and in increasing their income. likert scale test is used to measure the attitude of the members towards the benefit from these activities.

Results and Discussion:

Table (1) frequency distribution and percentage of member by their participation with agricultural extension activities (N=292)

Activities	participated		Not participate	
	Freq.	%	Freq.	%
Farmers field school	286	97.9	6	2.1
Demonstration fields	288	98.6	4	1.4
Field or office visits	288	98.6	4	1.4
Training courses	288	98.6	4	1.4
Extension messages	287	98.3	5	1.7

Source (Social survey 2019)

Table (1) indicates that there was several extension activities provided by agricultural extension agent during 2019, according to the programe of the Ministry of Agriculture in Khartoum state. These activities presented in different ways, 97.9% of members participated in farmers field schools, 98.6 participated in other activities like, Demonstration field, field and office visits, and training courses. This means that the majority of the members participated in agricultural extension activities provided to them. This result agrees with a similar study conducted in Kenya which indicated that government extension activities is a major source of information in all cooperative investigated (David Ree etal,2000).

Table (2) Frequency distribution and percentage of members by their provision with agricultural extension services (N=292):

Agricultural Services	Provided		Not provided	
	Freq.	%	Freq.	%
Farm management	252	86.3	40	13.7
Provision of inputs	268	91.8	24	1.4
Provision of credit	256	87.7	36	12.3
Provision of advance technologies	215	73.6	77	26.4
Marketing information services	163	73.6	129	44.2

Source (social survey 2019)

Table (2) showed that the majority of members provided by several extension services 91.8% provided by inputs, 87.7% provided credit, 86.3% provided by farm management items. Although marketing information and services is very important but it seen that 44.2% of the members are not provided by that service. The researcher believes that market information is one of the most important services that can be provided by agricultural extension agents for the farmers to increase their production and productivity according to the resent marketing information.
This study agrees with study conducted by FAO, (2017) which said that the use of market information for longer term decision, farmers should be aware of their storage costs, to decide whether to store or not, in addition they should have an understanding of the production costs, so that they can use management information system (MIS) to plan whether to grow new crops or to move to off-season production.

Table (3) chi- square between participation of the member in the activities and their increase in income:

		Increase in income							
	Agricultural Extension activities	**Increase move**		**Increase move**		**Increase move**		**Increase move**	
1	Farmer field schools	Freq.	%	Freq	%	Freq	%	Freq	%
	Participated	79	100	128	99.2	75	94.9	4	80.0
	Not participated	0	0	1	0.8	4	5.1	1	20.0
	Total	79	100	129	100	79	100	5	100
	Significant level				0.003				
2	Demonstration field	Freq	%	Freq	%	Freq.	%	Freq	%
	Participated	78	98.7	127	98.4	78	98.7	5	100
	Not participated	1	1.3	2	1.6	1	1.3	0	0
	Total	79	100	129	100	79	100	5	100
	Significant level				0.990				
3	Field and office visits	Freq.	%	Freq	%	Freq	%	Freq	%

	Practicipated	78	98.7	128	99.2	77	97.5	5	100
	Not participated	1	1.3	1	0.8	2	2.5	0	0
	Total79	79	100	129	100	79	100	5	100
	Signific0ant level				0.752				
4	Training and courses	Freq.	%	Freq.	%	Freq	%	Freq	%
	Participated	79	100	128	99.2	77	97.5	4	80.0
	Not participated	0	0	1	0.8	2	2.5	1	20.0
	Total	79	100	129	100	79	100	5	100
	Significant level				0.0020				
5	Extension messages	Freq.	%	Freq	%	Freq	%	Freq	%
	Participated	78	98.7	129	100	76	96.2	4	80.0
	Not participated	1	1.3	0	0	3	3.8	1	20.0
	Total	79	100	129	100	79	100	5	100
	Significant level				0.002				

Source (social survey 2019)

Table (3) showed that there is a significant relationship between member's participation in agricultural activities and their increase of income , farmer's field schools at significant level (0.003) training courses, at significant level (0.002) and extension messages at significant level (0.002).

The result on table (3) showed that there's a relationship between members participated in farmer's field schools activity and their increase of their income within the level of significance 0.003 at level of 0.05.

This means that these three activities have a positive impact on the performance of members and helped them to increase their income.

Likert scale to measure attitudes of members towards the agricultural Activities provided to them.

Table (4) average likert scale for extension activities:

Activities	Degree	Rank
Farmers field schools	1.7	4
Demonstration fields	1.6	5
Field and office visits	1.8	3
Training & course	1.8	2
Extension messages	1.8	1
Likert average scale	1.7	

Source (Statistical analysis 2019)

Table (4) shows the average level of likert scale about the attitude of members towards the agricultural activities provided to them is positive. The average of all activities is above or at (1.7) which is the average of likert scale level accepts. Demonstration field activity (1.6) this indicated that farmers need more information about this activity.

Conclusion: The challenge in this study is how to help the members of Wad Rmli Cooperative to assess the agricultural extension activities and services provided to operate effectively. Farmer's participation is very important to identify their needs they considered the agricultural extension activities such as s farmer's field schools, training courses and extension messages are effective and they have a positive attitudes towards them.

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