

The Role of Retired Agricultural Extension Workers in Enhancing Farmers' Socio-economic Development in Thika District, Kenya

Mwikamba Kaibui¹, R. W. Gakure¹, N. J. Kathuri² and E. N. Kimani³

¹Research, Production and Extension Division/ School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology

²Kenya Methodist University

³Department of Gender and Development Studies, Kenyatta University

Abstract

Extension service provision has been identified as one of the factors that contribute to high agricultural production. Farmers seek this essential service from extension workers or persons whom they perceive to be knowledgeable in the field of agriculture. Getting extension services is thus a major need for farmers. The objective of this study was to investigate the role of Retired Agricultural Extension Workers (RAEWs) of between 45 and 55 years of age in bringing about increase in agricultural production and overall socio-economic well-being of the farmers among whom they live. The study was conducted in Thika District of Kenya. The actual population of RAEWs in the district was 165. A sample of 60 RAEWs, comprising four categories based on their qualifications, was randomly selected. To assess RAEWs' influence/role with respect to the socio-economic status of their neighbouring farmers (NEFs), a group of 400 NEFs were randomly selected. Questionnaires, observation and interviews were used as the tools to collect data. Data was analysed using descriptive and inferential statistics. The results indicated that RAEWs were not only involved in social activities but were also engaged in economic activities, such as businesses, marketing and offering employment to the local community. Regression analysis showed a strong difference $r=0.730$ and $r^2=0.433$ indicating that 43.3% of the change/improvement in socio-economic characteristics can be explained by the presence of RAEWs. In view of the contribution that

RAEWs are making in the community, a policy needs to be put in place to ensure that RAEWs are better utilised. Refresher courses for RAEWs would help them become more effective in their work alongside sensitising farmers on the role of RAEWs in the society.

Introduction

Agricultural development in Kenya has continued to encounter various challenges. One of these challenges is the provision of extension services to farmers. Agricultural extension plays a significant role in the growth of agriculture and hence is crucial in the attainment of agricultural development goals and the country's overall development. The importance of extension in rural development is widely acknowledged (Neuchatel Group, 2007). Birmer *et al.* (2006) note that many countries have recognised the need to revive agricultural advisory or extension services as a means of using agriculture as an engine of pro-poor growth; reaching the marginalised, the poor, and the female farmers; and addressing new challenges, such as environmental degradation and climate change. The authors add that in spite of ample experience with extension reform worldwide, identifying the reform options most likely to make extension more demand-driven remains a major challenge. As stated by Olusi (2001), the fact that farmers seek extension services is a clear indication that the services are useful and necessary for the development of the sector. Stakeholders in the sector have tried to address this need and use different approaches. However, a lasting solution has not yet been found.

The World Bank report "Integrating Society, Ecology and Economy: Responsive Growth for the New Millennium" released information which showed that, with so many poor rural residents and so many changes in the agricultural sector, enhancement in agriculture has never been more important for achieving the anti-poverty goals (World Bank, 2004). Indeed, international experience has shown that there is a direct relationship between agricultural growth and poverty reduction (*ibid.*). Strengthening agricultural development is hence vital, especially in countries where agriculture is the backbone of the economy. This is because it induces economic growth in that it creates employment for not only the farmers themselves but also for those working in the farms, the agro-industries and other agricultural related sectors, such as the extension service and even operators of agrochemical businesses. Moreover, it is a sure guarantee for the country's food security besides being a foreign exchange earner.

In the late 1980s and early 1990s the World Bank advocated for Structural Adjustment Programmes (SAPs) (Commander, 1989). Birner *et al.* (2006) note that these programmes, coupled with the related disenchantment with agriculture, especially in sub-Saharan Africa, led to a decline in national and international support for agricultural advisory services. Except for cases of highly-commercialised agriculture, where advisory services were often financed by farmers or farmers' groups, output buyers and input suppliers, advisory services for smallholders were almost exclusively a public sector activity. After the time of the Green Revolution, public sector advisory services suffered from a loss in stature caused by the widespread perception that they had become ineffective, inefficient, and fiscally unsustainable. In part, this loss of stature was related to a paradigm shift regarding the role of the state in development, which characterised the Structural Adjustment era. The authors further state that the loss of stature of agricultural advisory services may also have resulted from the promotion of a rather uniform model – the Training and Visit (T&V) system – across some 50 countries until the mid-1990s.

Kenya's economy is principally agriculture-oriented and hence agricultural growth and development is crucial to Kenya's overall socio-economic development. The sector directly contributes about 26% of Gross Domestic Product (GDP) and a further 27% through linkages with manufacturing, agricultural products, and agriculturally oriented service delivery sectors (Agricultural Society of Kenya, 2005; GoK, 2004). Over 80% of the Kenyan population live in the rural areas and depend mainly on agriculture and fisheries for livelihood (GoK, 2004). To increase agricultural production, the Kenya Government has had to develop policies which address various factors that influence agricultural output. The Government of Kenya has noted that food security is basic to the survival of any nation, not to mention any family or individual. Food security has, therefore, to be given top priority since no meaningful development in the economic, social or cultural sphere is possible without it (GoK, 1994).

Extension workers play a key role not only by enlightening the farmers on modern methods of farming but also by offering informal training in their respective farms in the form of technical services (Adams, 1982). Despite all these efforts, Kenya has not been able to achieve food self-sufficiency.

In implementing SAPs in Kenya, the Government advised civil servants to opt for early retirement. A few of those who retired were employees working as

extension workers in the Ministry of Agriculture, and the Ministry of Livestock Development and Fisheries. The retirement exercise indirectly increased the importance of the informal sector, affecting the labour market. This was because farming was left as one of the outlets for informal employment. It was, therefore, necessary to acknowledge the social impact brought about by SAPs. This was particularly so because some of the employees were still young. The fact that they were young meant that they were able to continue being productive, and if properly retrained, they could benefit from self-employment opportunities that were obtainable in the agricultural and informal sectors of the economy (Commander, 1989). Moreover, the retired agricultural extension workers (RAEWs) had an advantage in these circumstances as they had already undergone formal training. Notably, the agricultural and informal sectors were about the only occupational areas left for the Kenyan youth. Furthermore, there had also been limited absorption into the Government of the new university graduates of agricultural sciences. The need to develop the informal sector was, therefore, crucial to Kenya because of the high level of unemployment. Involvement in agricultural activities, social activities, and provision of leadership by the ex-agricultural extension workers would boost the agricultural production and possibly harness the energy of the youth.

The Kenyan population, especially the youth, have been known to have a negative attitude towards agriculture. The majority of them come to it only if there is no alternative (GoK, 1992). This attitude needs to change because agriculture is not only the mainstay of the economy but also a provider of employment, food and raw materials for agro-based industries, as well as a big foreign exchange earner (GoK, 1992).

Some of the agricultural graduates may take up farming as a business and hence apply their knowledge in practice. These may not need a lot of training. This would mean that the community would see them as living examples of the profitability of improved agricultural practices and hence increase the adoption rate for agricultural technologies. Others may still not venture into farming for fear of failing or due to lack of initial capital or because of the risks involved, despite the fact that they are trained professionally. This may reflect negatively on the adoption rate of technologies by farmers and may also affect the youth who may be interested in taking agriculture as a profession. Moreover, RAEWs and unemployed graduates in agriculture may be offering extension services either directly or indirectly in the communities in which they live (GoK, 2001). It is worth noting that the Kenya Government in its

Strategy for Revitalising Agriculture (SRA) has indicated that one of the strategies to revitalise the agricultural sector consists in training of farmers, pastoralists and fisher folk so that they may be able to manage their activities in a business-oriented manner (GoK, 2004). The objective of this study, therefore, was to establish the socio-economic role of RAEWs between 45 and 55 years of age and to determine how their wealth of experience in training can be utilised to stimulate increase in agricultural production.

Methodology

Research Design

This study targeted only specific groups of people in the society and thus followed the Ex-post facto design since the effects of the independent variable on the dependent variable had already taken place at the time of the study. A survey design was adopted, and noting that the population under study was heterogeneous, a randomised stratified method was employed to select the respondents. This is because such a method can capture all the representatives of each stratum (Kothari, 2004).

Geographical Location and Population

The study focused on Thika District in Central Province, Kenya. Thika was specifically chosen because of its positioning and also for being a cosmopolitan district with inhabitants from many parts of Kenya. Farming activities in this district also vary from what one could refer to as urban farming, to large scale farming. Thika District has 80% arable land, moderately fertile soils, favourable weather, especially in the upper divisions. There are many rivers which transverse the district which provide water for both small and large-scale irrigation activities (Njoroge, 2003). Different agro-ecological zones cut across the district, making comparison with respect to farming activities possible. Moreover, many of the pilot extension projects have been carried out in this district. This makes the district ideal for the study.

According to the 1999 National Census, the total number of households in the study area was 171,569. The district has six administrative divisions, namely, Gatundu, Ruiru, Thika, Gatanga, Kamwangi, and Kakuzi. The district has 21 locations, and 89 sub-locations (MoARD, 2001). Among this population there were RAEWs.

The study targeted retired graduates in agricultural sciences living among the community and randomly selected farmers neighbouring them (NEFs). RAEWs were chosen because of the perceived role that they played in the agricultural sector by providing extension services when they were in active full-time employment. The study wanted to establish whether these persons played any social role in the community after leaving active service. To establish this, two kinds of population were considered. The sampling frame was, therefore, drawn from these two kinds, namely:

- (a) Area Population of Farm Families
There were 83,874 small farm holdings owned by 117,874 farm families, including RAEWs (Njoroge, 2003)
- (b) Population of the RAEWs
A total population of 165 RAEWs was identified from the entire district when the initial survey was done. This population was classified into four categories according to their professional qualifications, namely, certificate, diploma, Bachelor's degree, and Master's degree in various disciplines of the agricultural sciences. All had worked as extension officers on full-time basis before being either retrenched, retiring, or resigning from the service. Having worked for some time, the RAEWs population ages varied from 45 years (youngest) to 70 years (oldest). They had retired at varying dates.

Sampling and Sample Size

Sampling Techniques

The study targeted 60 RAEWs out of the total number of 165 RAEWs found in the district and 400 NEFs out of the entire population of the farm families in Thika District. To select this sample, a stratified sampling was done in all the six divisions. Noting that the numbers of RAEWs were not equal in all divisions, different numbers were randomly selected based on their level of qualification and the number of locations in each division. The stratum was based on the administrative boundaries and had RAEWs who had different qualifications. It was stratified in the sense that it ensured that various categories of the target group, namely, retired, resigned, sacked, retrenched RAEWs, and NEFs were represented (Kothari, 2004). In addition, stratification was based on: division where RAEWs lived, level of training (designation), gender, and mode of RAEWs leaving the service. To assess whether RAEWs were influencing their community, a sample comprising eight neighbouring farmers per each selected RAEW was selected randomly, except for 10 RAEWs living in urban areas because their neighbours were not

necessarily farmers. The justification for choosing this number is that the physical proximity of adopters of technologies is positively related to adoption (D'Emden *et al.*, 2006; Hagerstrand, 1967; Ruttan, 1996). Moreover, the physical distance of the property from sources of information about the innovation is important – more distant landholders/farmers are less likely to adopt. This could imply that farmers near RAEWs were more likely to be influenced than those far away.

Sample Size

The sample size in this study was determined in accordance with Mugenda and Mugenda (1999) and Kothari (2004). In the view of these authors, for correlational research, 30 cases or more are required; for descriptive studies, 10% of the accessible population is enough; and for experimental studies, at least 30% are required per group. This study being descriptive, the respective recommendation was followed. Two samples were collected.

(a) RAEWs

Sixty RAEWs were randomly selected, comprising four categories depending on their highest level of professional qualification.

(b) NEFs

To assess the socio-economic influence RAEWs have on farmers, 400 NEFs were selected. The number 400 was arrived at by multiplying the number of RAEWs (60) by the number of NEFs (8) for each. But as indicated earlier, 10 RAEWs living in urban areas did not have neighbours who were farmers. So this number ($10 \times 8 = 80$) was subtracted from what would have been a total of 480 NEFs.

Data Collection

In collecting data, structured, semi-structured questionnaires; field observation; and face-to-face interviews were used as instruments. Data relating to all the variables were collected simultaneously. Visits to the homes of RAEWs and NEFs were made to administer the tools during the data collection exercise. Secondary data on the status of RAEWs were not available as the government offices in the district did not have a record of all the retirees from the Ministry of Agriculture or the Ministry of Livestock and Fisheries.

Table 1: RAEWs and farm families population versus sampled RAEWs and NEFs per division

Division	RAEWs Population	Sampled RAEWs	Farm Families	Sampled NEFs
Gatanga	44	11	103048	88
Gatundu	31	11	26400	88
Kakuzi	20	10	9953	80
Kamwangi	35	12	19330	96
Ruiru	17	8	10297	32
Thika	18	8	12880	16
Total	165	60	181,908	400

Data Analysis

Frequencies, cross tabulations, ANOVA, regression and means were computed to determine the socio-economic influence of RAEWs in the community in which they lived. Data gathered from both RAEWs and NEFs were computed under different categories. The RAEWs categories included: social activities, provision of employment, provision of extension services, production, and the farming activities. Statistics Package for Social Scientists (SPSS) was used during data analysis.

Results and Discussion

This section looks at two areas, namely, results and discussion of the results.

Results

Involvement of RAEWs in Social Activities

The computed data indicated that 83.3% of the sampled RAEWs were involved in social activities in the community in which they lived. Detailed results on the type of social activities indicated that 53.3 % were involved in development related activities such as water projects, infrastructure, development, health projects, and school development projects.

Results further revealed that not only were RAEWs involved in social activities but they were also leaders and held leadership positions in those development projects. The results indicated that 76.5% held the position of officials, i.e. chairperson (44.8%) or vice-chairperson (10.6%), treasurer

(8.5%), and secretary (10.6%). These findings were a clear indication that RAEWs were making valuable contribution in the stated areas. Tables 2 and 3 presents the results.

Table 2: Summary of RAEWs' involvement in social activities

RAEWs	Frequency	Percentage
Chairperson	21	44.8
V-chairperson	5	10.6
Treasurer	4	8.5
Secretary	5	10.6
Director	1	2.1
Committee member	8	17.0
Elder	3	6.4
Total	47	100.0

Table 3: Summary of RAEWs' involvement in social activities: Cross tabulation according to qualifications

RAEWs Qualification	Yes	No
Certificate	88.9%	11.1%
Diploma	75.0%	25.0%
B.Sc.	75.0%	25.0%
M.Sc.	75.0%	25.0%
Total	83.3%	16.7%

Leadership

Computed results from RAEWs respondents showed that 83.3% considered themselves as opinion leaders in the community in different forums. This meant that they were consulted or involved in decision making on issues affecting the community. The RAEWs leadership mandate is further supported by the response got from NEFs. Results indicated that 59% of the 400 respondents recognised RAEWs as leaders in the community. Regarding the areas of leadership, 39.5% considered RAEWs as leaders in the social activities, while 13.3 % recognised them as very useful people in the society.

Extension Provision

Eighty per cent of RAEWs indicated that they were involved in providing extension services either directly or indirectly to NEFs. Detailed results indicated that they were providing services to 130 farmers (32.5%) sampled along with them.

Provision of Employment

The analysis of the results indicated that, 76.7% of RAEWs employed casuals, 23.3% had none, 80% had engaged casual and permanent workers to do some work for them, and 20% had not done so. Table 4 presents the results.

Table 4: Summary of RAEWs' involvement in offering employment

RAEWs Qualification	Frequency	Percentage
Casual	46	76.7
No employment	14	23.3
Both casual and permanent	48	80.0
Neither casual nor permanent	20	20.0

Further investigation indicated that RAEWs spent on average US\$275.3 per month as wages to pay their employees. The results further indicated that at least 9.7% of the respondents had worked for RAEWs. Table 5 gives the summary of the wages RAEWs paid their workers.

Table 5: Mean monthly wage paid by RAEWs to their employees

No. of Employees by RAEWs	Monthly wage in US\$
1 - 4	86.80
5 - 10	292.00
Above 10	1237.30
Total	275.30

Service of RAEWs to NEFs

Information on the view of NEFs on RAEWs was sought and the data were analysed and presented under different categories.

(a) Clients of RAEWs

An attempt to establish whether the neighbours were in any way receiving services as clients for RAEWs was made. The computed results of 400 NEFs indicated that 130 (32.5%) were clients of RAEWs, while 270 (67.5%) were not. When details were sought as to when they became RAEWs' clients, the results indicated that 58.5% became their clients between the year 2000 and 2010.

(b) Type of Service Offered by RAEWs

Data were gathered from the 400 NEFs to know whether they received any advice or service from RAEWs. In addition, information was sought on whether RAEWs offered service to the group of farmers in case the NEF was a

member of a farmers' group. The analysis showed that 193 (48.3%) of NEFs belonged to a farmers' group, while 207 (51.8%) did not. Regarding whether the groups received any advice from RAEWs, the analysis indicated that 35.2% of the groups received advice from RAEWs, while 64.8% did not. This means that RAEWs would at times meet the group members at one point or another to offer the service that NEFs needed. Further, the results indicated that 49% of the NEF clients received advice in a crop related field in various aspect of crop husbandry, 28.3% in livestock related field in various husbandry practices, while 22.8% got advice on both crops and livestock from RAEWs.

Regarding frequency of meetings with RAEWs for advice, the results indicated that 54% of RAEWs' clients went to seek services in RAEWs farms, while 28% received the advice at a *Baraza* and sought for the advice occasionally (39.7%).

Views of NEFs regarding RAEWs

Various information regarding the views of NEFs on RAEWs and how they would rate them in several aspects on their role in the community was gathered. The results are as follows:

- (a) **Resourcefulness of RAEWs in the Society**
The results indicated that 56.5% of the NEF respondents recognised RAEWs as a resourceful group.
- (b) **Farming Activities**
On farming, 183 (45.8%) of the respondents considered the farming activities of RAEWs as good examples.
- (c) **RAEWs Business Benefit to the Community**
On whether the community benefits from the businesses that RAEWs were involved in, 55.7% of the respondents indicated that the RAEWs business was of benefit to the community.
- (d) **Wealth Status**
Results of the NEF judgment regarding the wealth status of RAEWs indicated that 52.1% considered them rich. This information was vital in that it could assist in assessing the ability of RAEWs to impact on the economic status of the society.

Views of NEFs on Training in Agriculture

Information was sought from the 400 NEFs regarding training in agriculture and if they had any relative who had undergone training in agriculture. In addition, the respondents were asked to indicate whether they would like any

of their relatives to train in agriculture. This information was important as it assisted in assessing the way the society viewed the farming activities of RAEWs. The results indicated that only 6.3% of the respondents had relatives who had undertaken a training in agriculture related disciplines, while 79.8% indicated that they would like to have one of their relatives undertake a training course in an agriculture related field. When asked to state reasons as to why they wanted one of their own to train in agriculture, 58.2% (202) felt that the training would help their relatives to be self-employed, an indication that the community viewed agriculture as an alternative means of earning a living, hence a high regard for agriculture.

Summary of Socio-economic Influence Attributable to RAEWs

Further analysis to determine whether the presence of RAEWs significantly influenced the socio-economic characteristics of the community was done. Regression and ANOVA analysis were done on premise hypothesis that the presence of RAEWs does not significantly influence the socio-economic characteristics of the community. The regression analysis showed a strong difference $r=0.730$ and $r^2=0.433$ which showed that 43.3% of the change/improvement in socio-economic characteristics can be explained by the presence of RAEWs.

Further on the beta coefficient of the resulting regression model $t=2.955$ indicated that the beta coefficient is significantly greater than 0, $p=0.07$ which is less than $p=0.05$, the test statistic. This confirms that essentially the presence of RAEWs influences the socio-economic characteristics of the local farmers meaning that the activities of RAEWs have a positive influence on the socio-economic characteristics of the local farmers. Hence RAEWs are of benefit to the local community.

Table 6: Education level and socio-economic status of RAEWs

Level of training	Socio Economic characteristics		
	n	Mean	SD
Certificate	36	7.64	0.37
Diploma	12	9.94	0.84
B.Sc.	8	9.03	0.31
M.Sc.	4	8.60	0.10
Total	60	8.80	

Table 7: Regression analysis of presence of RAEWs and socio-economic characteristics index

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730	.433	.107	.1552

a Predictors: (Constant), RAENDEX

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.168	1	.168	7.876	.07
Residual	1.201	32	2.109E-02		
Total	1.390	33			

a Predictors: (Constant), RAENDEX

b Dependent Variable: SOCNDEX

Table 8 Coefficients

	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
Model	B	Std. Error	Beta		
(Constant)	.228	.094		2.411	.020
RESNDEX	.531	.146	.350	2.955	.008

Discussion

Results clearly showed that RAEWs were highly involved in social activities not just as members of the society but as opinion leaders and also leaders in various communal activities and structures. The fact that RAEWs were involved in leadership and other social activities was an indication of the confidence and trust that the community had in them. The regression analysis showed a strong difference $r=0.730$ and $r^2=0.433$ which showed that 43.3% of the change/improvement in socio-economic characteristics can be explained by the presence of RAEWs. This relationship is not weak and can be used to explain/predict the improvement of the socio-economic characteristics on the basis of the presence of RAEWs.

One of the areas where the RAEWs were involved was in leadership. Maxwell (2005) has noted that everything rises and falls under leadership. This implies that the leader influences many aspects of a given group. The leadership role

of RAEWs was not self-imposed but the society itself acknowledged and recognised them as opinion leaders in different areas. As leaders, RAEWs had followers and hence caused or had the power to influence many changes in the community through the groups and organisations that they were leading. Those involved in development leadership were capable of deciding on what development projects were to be undertaken or initiated in the community, while those involved in the farmers' leadership influenced agricultural projects which were to be undertaken. In essence this would mean that if the change agents were to make any inroads in such a community, the entry point should be through these leaders, who are likely to influence their followers. This could be in line with the observation of Stewart (1998) that insiders are more likely to bring long-lasting changes than new-comers or visitors (in this case the government agents sent to work in these areas). It can be argued that this is so because RAEWs have not only the advantage of local language but have also had an exposure to different environments and hence are more likely to embrace new ideas.

On employment, the results indicated that 80% of RAEWs provided some employment to someone in the community. The results indicated that at least 9.7% of the NEF respondents were at one time or another employees of RAEWs. This is an indication that this group of employees were direct beneficiaries of RAEWs whose daily payment ranged from Ksh.70 (US\$ 0.9) to Ksh.150 (US\$1.9) The results, however, revealed that not many RAEWs engaged workers on permanent basis. There were RAEWs who engaged between 1-4 employees, others 5-10, and those who had more than 10 employees. Offering employment means empowering individuals in the society economically. Empowerment refers to increased well-being, community development, self-sufficiency, and expansion of individual choice (Zeller, 1994). Noting that the level of poverty in Kenya is about 56% and the majority of the population in rural areas live below the poverty line, RAEWs' contribution to poverty reduction cannot be ignored. Moreover, considering the fact that 52.1% of NEFs considered RAEWs as being rich, the provision of employment to just 9.7% could be considered as being rather low, even though they spent on average US\$275.3 per month. This money was being released to the community in the form of wages. It can be argued that with economic empowerment, individuals could be influenced to put more investment in farming, educate their children, or improve their nutrition status. This aspect is captured by the response of NEFs whereby 58.2 % indicated that they would love to have one of their relatives acquire training in agriculture. This is a positive influence which is likely to be the result of what they may have

noticed from RAEWs. This notwithstanding, it cannot be said that all those who got some employment were rescued from poverty. For this to happen, they need to put their income into a worthy cause. Moreover, the wages were not high and were not on a permanent basis.

In addition, the results also showed that 55.7% NEFs indicated that the businesses benefited the community. Furthermore, NEFs indicated that the businesses were beneficial to all and not just to RAEWs. These businesses had socio-economic connotations or implications. First, there were people who were employed to assist in running these businesses and in the process they earned their living, thereby affecting their economic status. Secondly, there were RAEWs who provided market for the farm produce by the farmers. Thirdly, the businesses were probably giving a wide service to the community depending on the nature of business. For example, there were those who owned agrovet shops which were providing inputs to the farmers.

Provision of market for the farm produce implied an extra income for NEFs and other members of the community. In the ideal situation the income so gained would be channeled for the betterment of the society's standard of living. Moris (1991) notes that marketing of the agricultural produce is a major challenge which has not been adequately addressed by extension workers as it is not considered as part of their duty. It, therefore, follows that anyone who provides market or an outlet for the farmers' products was considered an asset to the community.

Looking from another angle, it could be argued that the sample which was taken had a small number of persons who were employed by RAEWs as it did not represent the entire population. Furthermore, it could also be argued that it did not matter where the employees came from but the fact remains that some employment was being offered and that the community benefited from the funds which were being released to them. Moreover, the fact that RAEWs were considered as rich and were leaders in some development projects signifies that they must have been making financial contribution to the different projects and other social activities in which they were involved.

On extension service, though the results showed that 80% of RAEWs provided service to 130 as their clients, the number could be far above this, taking into account that this was just a representative sample. Also, the clients were those directly offered services, or what one could refer to as regular customers; but there were those who were indirectly benefiting from the services offered to

others. For example, results indicated that 183 farmers had considered the farming activities of RAEWs as good examples to follow. This implied that even though they were not necessarily clients of RAEWs, the farmers were indirectly benefiting in the sense that they were possibly copying what RAEWs were doing. In addition, another 55.3% of NEFs indicated that the businesses in which RAEWs were involved benefited their community, implying that there was indirect communal benefit. For instance, there were NEFs who benefited from the inputs which some of RAEWs who had agro-vet businesses were selling. These NEFs were not clients of RAEWs directly. Furthermore, other NEFs who were not direct beneficiaries of RAEWs' advice benefited from clients of RAEWs who had received such advice from RAEWs. This could be called pluralistic advisory service (Birner *et al.*, 2006). It could also be considered as market-driven as the farmers themselves sought the service from RAEWs (Birner and Anderson, 2007).

Provision of markets to some farmers by some RAEWs could also have impacted on the community in which RAEWs lived. By buying farmers' produce RAEWs were helping the community to get some income.

When results of extension services offered to NEFs were compared, more attention appeared to have been directed to crops (49.3%) than livestock (28.3%). These results confirm that there was a distinct bias at the expense of livestock. Such a situation could possibly lead to what Moris (1991) refers to as livestock orphanage when it comes to provision of extension services, meaning that very little management attention was being given to livestock and it was likely to reflect negatively on the livestock production. This has a long-term economic implication.

When the clients of RAEWs were considered, contrary to the expectation of many that they may be willing to serve all NEFs, bias in the service was observed even when it was a paid service. The results revealed that only 32.5% of NEFs acknowledged being clients of RAEWs. The results seemed to tally with the Kenya Agricultural Productivity Project (KAPP) (2006) which states that the extension service has only reached about 26% of the population, nation-wide. RAEWs and even the Government extension workers appeared to have their own clients. This selective extension service, as one may refer to it, may not be easily eliminated and it may be meant for those who are willing and ready to seek for it (Moris, 1991). However, when the multiplier effect is considered, RAEWs' clients are bound to be more because the clients shared with other farmers the ideas received from RAEWs. This implies that the

agricultural extension service normally should be considered to go beyond the provider. The advisory itself could be considered as participatory and all that RAEWs were doing was facilitating it either directly or indirectly.

Moreover, noting that RAEWs were also entrusted with other responsibilities in the society, it could be argued that they had actually more clients than those who openly declared that they were their clients. For example, NEFs who were not necessarily their clients may have seen their leadership qualities or their farming activities as products of their training in agriculture and hence have tried to copy them. This argument could possibly be supported by the results arrived at after analysing NEFs' views regarding training in agriculture. The results indicated that the farmers had very high regard for agriculture. The results revealed that they regarded it as an alternative to paid jobs after recognising that the paid jobs were currently very scarce. Furthermore, the performance of RAEWs in farming and other social activities could have contributed to NEFs' positive response. However, another argument could be raised challenging NEFs' positive response. It could be argued that this positive response was narrowly motivated. Thus when asked to state the reasons for wanting one of their own to get training in agriculture, 58.2% of NEFs indicated that it was mainly for self-employment.

When the farming activities of RAEWs were considered, the findings indicated that nearly half of NEFs (45.8 %) felt that RAEWs' farming presented a good example. Such a big percentage is a proof of the influence RAEWs had on NEFs who openly acknowledged their admiration for the farming activities of RAEWs. It has been observed that a history of respectful relationships between landholders/ farmers and advocates for innovations, including scientists, extension agents, other landholders, and private companies, is positively related to adoption (Anderson, 1981; Marshall, 2004). Furthermore, a study done in Kenya by Tegemeo Institute of Egerton University on the relationship between households' use of hybrid maize seed, inorganic fertilizer, distance to the nearest extension service, and maize productivity per acre shows that households closer to extension service providers used high yielding technologies and realised higher yield than households far away from such service. This seems to imply that while other factors most likely contribute to these relationships, the proximity to extension service does appear to be correlated with small farmers' uptake of productivity enhancing technologies (Tegemeo, 2006).

Conclusion and Recommendations

Conclusion

The study has clearly shown that RAEWs were highly involved in various community activities and structures. The results showed that the group under investigation indeed held key positions in the social structure and hence had the recognition of the community. The fact that RAEWs were involved in leadership and other social activities was an indication of the confidence and trust that the community had in them. Moreover, leadership means that the said group were influencing certain areas of life of the community as they offered their service. Though not active in extension as employees, RAEWs were serving their fellow farmers not as field extension officers but as farmers. Besides this, the study showed that RAEWs played diverse roles in the community and had earned themselves recognition within it. This was rewarded by being given more responsibility in the community to serve them.

Recommendations

1. There is need for the Government to do refresher courses for RAEWs to sensitise them on their role in the society. Such refresher courses could include community leadership and poverty eradication programmes. These are areas in which RAEWs seem to have deficiency. This is because, though these persons were involved in various activities, few ever recognised that they were acting as role models to their neighbours.
2. The Government needs to do a sensitisation workshop for farmers to enlighten them on services they could get from RAEWs. Many farmers do not recognise the resourcefulness of RAEWs. These farmers wait for the Government extension officers yet their RAEW neighbours could be of great help. This is why such sensitisation workshops or seminars are important.
3. It is necessary to sensitise and facilitate RAEWs to form special interest groups in the communities as these persons understand government operations and can provide informal leadership and guidelines to other community members. This can be done by the Government extension workers.

Recommendations for Further Research

Further studies need to be conducted to:

1. Determine the influence of extension services on the enterprises kept by farmers.
2. Establish what new graduates of agricultural sciences are doing and who their employers are.
3. Replicate this study in other parts of the country and elsewhere to compare the results and enrich the body of existing knowledge.

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