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RESEARCH ARTICLE

EXTENSION SERVICE PROVIDERS' PERCEPTION TOWARDS DEMAND DRIVEN SYSTEM OF AGRICULTURAL EXTENSION SERVICE DELIVERY. CASE STUDY OF SIAYA AND KILIFI COUNTIES IN KENYA

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ABSTRACT

The objective of present study was to assess the perception of extension service providers' towards demand driven extension approach that was implemented by the Ministry of Agriculture under the auspices of National Agricultural and Livestock Extension Programme guided by National Agricultural Extension Policy. The study used Ex-post facto survey design. Simple random and purposive sampling techniques were used to select the study area and the sample. One set of questionnaire was used to collect data from extension service providers. Data were analysed using t-test and descriptive statistics with the help of the Statistical Package for Social Sciences (SPSS). Findings revealed that after the implementation of NAEP reforms, there was observation of insignificant change in perceptions among extension service providers towards pluralistic and demand driven extension approach. The insignificant change in extension service providers' perceptions towards agricultural extension services delivery system may have been due to weak collaboration caused by bureaucratic procedures and financial constraint of the NALEP-GOK and NALEP-Sida who were the main funding agencies of the Pluralistic and Demand Driven approach. The insignificant change in perceptions may also have been because of the difficulty faced by agricultural extension officers in promoting agricultural technology packages without the farmers making an effort to demand for them due to inability or inadequate knowledge of the appropriate time to seek for the services. The paper recommends that the different agricultural extension organizations including the government extension to strengthen collaboration among extension service providers by improving their financial commitment. The Ministry of Agriculture should also develop a policy that will endeavour to enhance farmers' knowledge acquisition through participatory training, field demonstration and experimentation. This will enhance their ability to value the importance of demanding for services from the different extension advisory organization at an appropriate time. The empowerment of the farmers will lead to improved demand for extension services resulting in maximum engagement of extension service providers, consequently change in perception. The significant change in perception will enhance interaction among extension service providers and the farmers and ultimately increased agricultural production for food security and increased income.

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INTRODUCTION

The effectiveness and efficiency of agricultural technology transfer and its advisory services plays an important role in agricultural development and can improve the welfare of farmers who live in rural areas (International Initiative for Impact Evaluation (3ie), 2010). Inspite the high cost of financing public sector extension whose main role is to disseminate agricultural technology to farmers in most of the developing countries, especially in Africa and Asia, agricultural production has continued to be low and even declined (Madukwe, 2006). The decline in agricultural production was blamed on the agricultural extension services provision system for being ineffective and inefficient (Rivera, 2001; Gustafson, 2002). In Kenya for example, agricultural production declined from 6.7% in 1977 to -2.4 in 2000 (Gustafson, 2002). The observed ineffectiveness and inefficiency of extension service provision system necessitated the call for reform in extension. The reforms called for pluralistic and demand driven approach. The approach emphasised on allowing other players other than the government extension to play greater role in extension service

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to farmers in 1999 to 2000 (Rivera, 2001). The need for reforms were anchored on the premise that pluralistic service would provide appropriate mix of players from public and private funding and delivery mechanisms for extension, which would achieve differing agricultural goals and serve diverse target population (Anandajayasekeram *et al.,* 2008, as cited in Zhou, 2010).The mix of players included mainstream government agricultural extension services, nonprofit making non-governmental organizations (NGOs), community based organizations (CBOs), and the profit making private sector that would ensure farming related information and technologies and services were available and accessible to the farmers (GoK, 2001, 2004). The reform on demand driven was to be achieved through formation of farmer group based on common interest in a specific commodity (referred to Common Interest Groups (CIGs)). These groups were to be used by extension service providers as a point of meeting to disseminate agricultural technology and information and as a group be empowered to demand for services (GoK, 2001, 2004). In order to implement the reform initiatives in Kenya, National Agricultural Extension Policy (NAEP) was formulated to guide and harmonize the management and delivery of agricultural extension services (Rivera, 2000, as cited in Rivera 2001; Government of Kenya (GoK), 2001). It was necessary to determine whether the implementation of NAEP reform changed extension service providers' perception towards agricultural extension service system in Siaya and Kilifi Districts. The selection of these two districts was to allow for comparison of the perception of the extension service providers involved in the implementation of the reforms based on their agro ecological, socio-economic differences, and potentials for making generalization to other districts.

The hypothesis that guided the study was:

H_{O1}. The implementation of pluralistic and demand driven extension approach by Ministry of agriculture under the auspices of NALEP and guided by NAEP did not significantly improve the perception of extension service providers' towards the agricultural extension service system in Siaya and Kilifi Districts.

MATERIALS AND METHODS

The sample for this study was selected from three divisions in Siaya and Kilifi Districts respectively among whom the NAEP policy reform was implemented. The divisions included: Yala, Ugunja and Wagai in Siaya District, and Ganze, Vitengeni and Bamba and Kilifi District. The sample included a saturation of all Agricultural extension officers from the Ministry of Agriculture, Non-governmental organizations (NGOs) and private profit making organizations who were involved in agricultural extension services delivery in both Siaya and Kilifi Districts in the field; five (5) Ministry of Agriculture administrators of extension distributed as follows: one from the Provincial and district levels and three at the divisional headquarters in both Siaya and Kilifi Districts respectively. A combination of purposive and snowball sampling were used. Purposive sampling was used to select the two districts, the six divisions and the focal areas where the policy reform was implemented. Purposive sampling was further applied in selection of administrators. Snowball sampling was used in tracking agricultural extension officers who were transferred from their stations and were crucial as sources of information. For successful data collection in the field, two sets of semi-structured questionnaires were prepared and administered to administrators and frontline agricultural extension officers. The questionnaires were used to collect data on personal details, details on NAEP reforms in agricultural extensions service delivery system, status of availability and accessibility of farmers to appropriate technology and information, performance of agricultural food production prior to and after the NAEP reforms, lessons learnt and suggestions on the reformulation and implementation of the policy. In addition to collection of the mentioned data, the questionnaire was administered to administrators was used to collect data on how the Ministry used the policy to strategise improvement of agricultural extension service delivery. While the one administered to agricultural extension officers was also used to collect data on status of collaboration with other agricultural extension services providers and farmers' perceptions on changes introduced in agricultural extension services delivery system. With the help of Scientific Package for Social Scientists (SPSS), the qualitative and quantitative data collected were analysed using statements, inferential statistics paired sample *t* test and frequency distributions forms of descriptive statistics. A likert scale was used in determining if there was observed change in perception among extension service providers towards agricultural extension services. In order to apply the likert scale, statistical application of measures of central tendency that would be most applicable to analyse the data was determined. The mean and standard deviation (SD) was calculated. According to Bordens and Abbot (2008), the mean of positively and negatively skewed distributions is not used in the interpretation of the data as it would not give correct inferences. It either under estimate or over estimate the centre, while the median, is used only if the distribution is heavily skewed. The hypothesis was tested at significance level of $\alpha = 0.05$ and the data were then organised into themes and concepts which was then generalised and led to conclusions and recommendations made on the study.

RESULTS AND DISCUSSION

The objective of the study was to determine the extent to which implementation of pluralistic and demand driven extension approach by Ministry of agriculture under the auspices of NALEP and guided by NAEP improved the extension service providers' perception towards the agricultural extension service system in Siaya and Kilifi Districts. To realise the objective, likert scale was developed to determine if there was observed change in perception among extension service providers towards agricultural extension services and the results were tested for significance.

Determination of Observed Change in Perception: The extension officers stated their opinions by responding to five statements. In order to apply the likert scale, statistical application of measures of central tendency that would be most applicable to analyse the data was determined. The mean and standard deviation (SD) was calculated. The results are presented in Table 1 based on respective statements. Table 1 shows that the results of the SD for all the items tested for Siaya and Kilifi Districts extension officers ranged from 1.15 to 1.26. In both Siaya and Kilifi Districts, except for the 'not able to deliver appropriate agricultural technologies to all farmers' and 'the extension system allowed all agricultural extension officers to deliver desired agricultural technologies to small-scale farmers' that were normal distribution, the distribution of the rest of the items were on the right of the

mean making it heavily skewed to the left. According to Bordens and Abbot (2008), the mean of positively and negatively skewed distributions is not used in the interpretation of the data as it would not give correct inferences. It either under estimate or over estimate the centre, while the median, is used only if the distribution is heavily skewed. Since most of the distributions were left skewed, the results were interpreted using the mode as a measure of central tendency in each statement since the man and median were not applicable. The results of the likert scale are presented in Table 2. Results in Table 2 show that in Siaya District some of the extension service providers scored on agree on most of the statements except for 'not able to deliver appropriate agricultural technologies to all farmers due to low ratio of extension worker to farmers' and 'small-scale farmers' accessible to market facilities for their agricultural produce' on which they scored strongly disagree, and disagree respectively before and after the implementation of the reforms. The highest total score for all the statements before and after the reforms was on agree. On the other hand, in Kilifi District, some of the extension service providers scored agree on statement two and three and disagree on first, fourth and fifth statement before the implementation of the reforms. After the reforms, except for 'Satisfied with the DD approach that was being used' and on which most extension service providers scored agree, the score for the rest of the items was disagree and strongly disagree on the fifth statement. The highest total score for all the statements before and after the reforms was on agree in Siaya District and disagree in Kilifi District.

Information gathered during individual interviews and FGDs indicated that

a) NALEP-Sida project funded by Sida collaborated with the government in implementing the reform, while other organizations such as KARI, NGOs and private profit making organizations implemented the reforms either in collaboration with government and other organizations or on its own.
b) The main players in NALEP-Sida were government agricultural extension officers, while KARI co-opted government agricultural extension officers in the Farmers Field School (FFS) activities that were being implemented under secondment and their own employee in Agricultural Technology and Information Response Initiative (ATIRI), a KARI project initiated to implement the reforms.
c) The reforms in Kilifi District were majorly implemented in specific areas by KARI using FFS and ATIRI, and NGOs which were funded by FAO and WB.
d) Projects that facilitated the implementation of the reforms engaged the government agricultural extension officers on either secondment or contracting-in. The contracting-in method made some individuals in extension to work more effectively because of field allowances that was not a practice in the normal government extension work.

Results indicate that there was change in stakeholders' perceptions towards agricultural extension service delivery system in both Siaya and Kilifi Districts. The change in Siaya District was positive while that of Kilifi District was negative. Reasons that may have caused the difference in the improvement between Siaya and Kilifi could be attributed to the effective implementation of the reforms using farmer groups as interaction platforms. The use of farmer groups increased the frequency of interactions between the extension worker and small-scale farmers and this enabled an extension worker to visit groups more than once per month. The difference in improvement could also have been caused by difference in collaboration that took place in the two study areas. Collaboration is more effective between and among groups that have funds to contribute equally to various activities they are engaged in. Collaboration also facilitates exchange of ideas resulting in technical capacity building which makes the agricultural extension officers more competent in their work. The difference could also be attributed to the presence of organizations and projects that facilitated the implementation of the reforms. The implementation in Siaya District was facilitated by NALEP-Sida which was funded by development partners contrary to Kilifi District where the implementation was through NALEP-GoK. NALEP-Sida was more endowed financially than NALEP-GoK. When organizations are financially endowed, they are able to facilitate agricultural extension officers in terms of transport to the field, provide allowances to agricultural extension officers, which in turn motivate them and in the process gain job satisfaction and hold field days and demonstrations which are effective methods of disseminating agricultural technologies and skills. Job satisfaction improves work output and promotes positive change of perception towards the organisation or institutions to which one is affiliated. The study findings are in line with those of Rivera (2003) who found that the shift to utilization of programmes and involvement of stakeholders in agricultural extension has resulted in positive achievement in extension service delivery to end users. Rivera (2003) noted that agricultural extension is at the centre of programmes such as Special Programme for Food Security (SPFS) which helps governments replicate successful food security practices on national scale by encouraging investment in rural infrastructure, off farm income generation, urban agriculture and safety nets.

Determination of significant Improvement in Extension Officers' Perception towards Agricultural Extension Service System: In order to ascertain any significance differences between the level of perception towards agricultural extension services by extension service providers' before and after the NAEP reforms that introduced Pluralistic and Demand Driven (PDD) approach, a paired sample t-test at significance level of $p \leq 0.0025$ was performed on the hypothesis that:

"*The implementation of pluralistic and demand driven extension approach by Ministry of agriculture under the auspices of NALEP and guided by NAEP did not significantly improve the perception of extension service providers' towards the agricultural extension service system in Siaya and Kilifi Districts"*

Data was collected on the following statements from extension service providers: on ability t*o d*eliver appropriate agricultural technologies and information to all farmers, satisfied with the Demand Driven mode of extension system, The extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers, Informed on market information to ensure Small-scale farmers' accessibility to the same for their agricultural produce,

Table 1. Determination of Measure of Central Tendency for Analysing Likert Scale Results (n=34)

Perceptions of extension officers towards agricultural extension service delivery system	Siaya District			Kilifi District		
	Mean	SD	Distribution	Mean	SD	Distribution
Not able to deliver appropriate agricultural technologies to all farmers	2.9	1.21	Normal	3.1	1.26	Normal
Satisfied with the approach that was being used	3.2	1.24	Left skewed	3.3	1.25	Left skewed
The extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers	2.9	1.22	Normal	3.0	1.21	Normal
Farmers demanded for extension services for increased agricultural food production	3.5	1.15	Left skewed	3.5	1.17	Left skewed
Small-scale farmers' accessible to market facilities for their agricultural produce	3.4	1.15	Left skewed	3.4	1.17	Left skewed

Table 2 .Likert Scale Results on Extension Officers Perception towards Agricultural Extension Services Delivery System in Siaya and Kilifi Districts before and after Implementation of Policy Reform

S/No	Perception of extension officers towards extension service system	Period	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
	Siaya District (n =17)		n (pts)	n (pts)	n (pts)	n (pts)	n (pts)
1	Not able to deliver appropriate agricultural technology and information to all farmers	Before	5 (5)	3 (6)	0 (0)	2 (8)	7 (35)
		After	8 (8)	0 (0)	0 (0)	2 (8)	1 (5)
2	Satisfied with the DD approach that was being used to improve service delivery to small-scale farmers	Before	3 (15)	6 (24)	2 (6)	3 (6)	3 (3)
		After	6 (30)	7 (28)	1 (3)	2 (4)	1 (1)
3	The extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers	Before	0 (0)	8(32)	2 (6)	6 (12)	1(1)
		After	0 (0)	11 (44)	4 (8)	2 (4)	0 (0)
4	Farmers demanded for extension services for increased agricultural food production.	Before	5 (25)	7 (28)	0(0)	4 (8)	1(1)
		After	1(5)	9(36)	2(6)	5 (10)	0 (0)
5	Small-scale farmers' accessibility to market information for their agricultural produce	Before	2 (10)	3 (12)	3(9)	7 (14)	2 (2)
		After	0 (0)	5 (20)	2(6)	8 (16)	2(2)
	Total score	Before	15 (55)	27(102)	7(21)	22(48)	14(42)
		After	15 (43)	32(128)	9(23)	19(42)	4(8)

S/No	Perception of extension officers towards extension service system	Period	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	Not able to deliver appropriate agricultural technologies to all farmers	Before	4 (4)	5 (10)	1(3)	6 (24)	0 (0)
		After	3 (3)	5(10)	0(0)	8(32)	0 (0)
2	Satisfied with the DD approach that was being used	Before	0 (0)	6(24)	4(12)	2(4)	4 (4)
		After	0 (0)	8(32)	2(6)	6 (3)	0 (0)
3	The extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers	Before	0 (0)	6 (24)	3 (9)	5(10)	2 (2)
		After	0 (0)	4 (16)	1(3)	7(14)	4 (4)
4	Farmers demanded for extension services for increased agricultural food production.	Before	0 (0)	5 (20)	1(3)	7 (14)	3 (3)
		After	0 (0)	8 (32)	0(0)	7(14)	1 (1)
5	Small-scale farmers' accessibility to market information for their agricultural produce	Before	0 (0)	0 (0)	6(18)	4 (8)	6 (6)
		After	0 (0)	1 (4)	5(15)	4(8)	6 (6)
	Total score	Before	4 (4)	22(78)	15(45)	24(60)	15(15)
		After	3(3)	26(94)	8(24)	32(72)	11(11)

The scores are 'strongly agree' (5), 'agree' (4), and 'neutral' (3), 'disagree' (2) and 'strongly disagree' (1). The scores on item one were reversed as the statement was negatively phrased. The numbers outside parentheses are total number of respondents who responded positively to the item according to the specified category. The numbers the in parentheses are the total points scored for the specific category for every item

Table 3. Paired Sample Statistics t test on Siaya and Kilifi Districts' Extension Officers' Perception towards Agricultural extension services

Statements to measure Extension officers' perception towards agricultural extension services	Siaya District(n=17)							Kilifi District (n=16)						
	NAEP Implementation Mean		Sig	Mean	*t*-test	df	Sig 2-tailed	NAEP Implementation Mean		Sig	Mean	*t*-test	df	Sig 2-tailed
Approach improved ability to deliver appropriate agricultural technologies to all small-scale farmers	Before	1.67	0.012	0.00	0.000	16	1.000	Before	1.47	0.000	-0.07	-1.000	15	0.334
	After	1.67						After	1.53					
Satisfied with the PDD approach that was being used to improve service delivery to small-scale farmers	Before	1.44	0.360	-0.33	-1.683	16	0.111	Before	1.80	0.212	-0.13	-0.459	15	0.653
	After	1.78						After	1.93					
The extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers	Before	1.72	0.209	0.22	1.166	16	0.260	Before	1.67	0.126	-0.13	-0.807	15	0.433
	After	1.50						After	1.80					
Improved utilization of appropriate agricultural technologies by farmers for increased agricultural production.	Before	1.50	0.480	-0.56	-2.557	16	0.020	Before	1.67	-	-	-	-	-
	After	2.06						After	1.67					
Farmers' accessibility to market information for agricultural produce	Before	2.06	-	-	-	-	-	Before	2.20	-	-	-	-	-
	After	2.06						After	2.20					

Food production for all households increased after using agricultural extension services. This was collected for both periods before and after the reforms. The results are summarised in Table 3.

The results in Siaya and Kilifi Districts shown in Table 3 indicate that:

1) The *t*-values for the two tailed significance levels in both Siaya and Kilifi districts were 1.000 and 0.334 respectively, which were greater than 0.025. The results in both Siaya and Kilifi Districts, indicate that there were no statistically significant differences at $p \leq 0.025$ observed change in perceptions towards agricultural extension service delivery system caused by the ability of extension service providers to deliver appropriate agricultural technology and information to all small-scale farmers.
2) The *t*-values for the two tailed significance levels in both Siaya and Kilifi districts were 0.111 and 0.653 respectively, which were greater than 0.025. The results in both Siaya and Kilifi Districts, indicate that there were no statistically significant differences at $p \leq 0.025$ observed in change in perceptions towards agricultural extension service delivery system caused by its ability to ensure extension service providers were satisfied with the PDD approach that was being used to improve service delivery
3) The *t*-values for the two tailed significance levels in both Siaya and Kilifi districts were 0.260 and 0.433 respectively, which were greater than 0.025. The results in both Siaya and Kilifi Districts, indicate that there were no statistically significant differences at $p \leq 0.025$ observed in change in perceptions towards the extension system supported collaboration among all agricultural extension officers for delivery of desired agricultural technologies to small-scale farmers.
4) The *t*-values for the two tailed significance levels of the difference between means for responses in Siaya District was 0.020 which was less than 0.025 was less than 0.025. The results indicate that there was statistically significant difference at $p \leq 0.025$ observed in change in perception towards agricultural extension service delivery system caused by its ability to improved utilization of appropriate agricultural technologies for increased agricultural production. There was no evidence to show significant change in Kilifi district since there were no figures for the difference in means.
5) There was no evidence to show significant change in perception towards agricultural extension service delivery caused by its ability to Small-scale farmers' accessibility to market information for their agricultural produce in both Siaya and Kilifi districts since there were no figures for the difference in means.

The only p-value that showed statistically significant difference in perception among extension officers change in perception in Siaya District, was that for 'improved utilization of appropriate agricultural technologies for increased agricultural production'. In Kilifi District, the p values for all the statements were greater than 0.025. Since over 80% of the statements that were used to assess extension officers' change in perception in both study areas showed no statistically significant difference, the null hypothesis failed to be rejected

The results indicate that the reforms did not cause changes in perception towards agricultural extension services delivery system among extension service providers employed by different organizations including the government. The positive change in Siaya District was at 20% contrary to Kilifi District in which the significance response was 100% negative. The observed 20% positive change in Siaya District could be attributed to effective use of farmer groups that facilitated interaction of agricultural extension officers with farmers. The interaction among farmers was enhanced by effective collaboration among various extension agents and the presence of more projects implemented by NALEP. Effective collaboration facilitated joint collaborative activities which included transport of agricultural extension officers and holding of various agricultural activities in the field. Demonstration and field days were used as avenues for exposing farmers to various technologies and provided suitable environment for interaction and sharing of ideas and information that was necessary for increasing agricultural production. The negative significance observed in Kilifi District could be attributed to ineffective collaboration among various stakeholders, fewer projects and inadequate funds by NALEP-GoK that spearheaded the facilitation of reforms. The financial endowment of a project is crucial in facilitating activities used in dissemination of technologies and information to farmers. Its inadequacy may hamper the effectiveness of service delivery and consequently influence perception. The insignificant change in perception in the two districts could be attributed to the quality and relevance of technology disseminated to farmer's current needs, farmers' capacity in technical knowledge on determining when it was necessary to seek for advice and suitability of the technology to the ecological requirements. If the technologies advanced by research institutions are not regional specific, and fail to adequately address the farmers' felt needs, the demand for such technologies or information may end up being low or none and subsequently becomes a limiting factor. The low demand for extension services may have a negative effect on extension service providers' perception towards Pluralistic and Demand Driven extension approach and consequently production and failure to translate in improving food security and household income for small-scale farmers. The study results are consistent with those of the studies done by Maalouf et al. (1987, as cited in Rivera, 2003). Maalouf *et al.* (1997) observed that the emerging trend in developing countries towards a more pluralistic conception involving private non-profit making, private profit making and public sector agricultural extension services providers, requires effective public and private sector collaboration to address the twin problem of poor extension coverage and resource limitations. Maalouf et al. (1991, as cited in Rivera et al., 2001) noted that cooperation and complementation of the public and private sectors in the area of extension is required. This offers: 1) increased resources for agricultural extension services to farmers; 2) reduced overlap and significantly increase the number of farmers reached by extension; 3) increased and improved utilization of agricultural research findings from both public and private interests supporting agricultural research and development investment.

Conclusion and Recommendation

The insignificant improvement in extension service providers' perceptions towards agricultural extension services delivery system may have been due to weak collaboration caused by

bureaucratic procedures and financial constraint of the NALEP-GOK and NALEP-Sida who were the main funding agencies of the Pluralistic and Demand Driven approach. The insignificant change in perceptions may also have been because of the difficulty faced by agricultural extension officers in promoting agricultural technology packages without the farmers making an effort to demand for them due to inability or inadequate knowledge of the appropriate time to seek for the services. The study recommends that the different agricultural extension organizations including the government extension to strengthen collaboration among extension service providers by improving their financial commitment. The Ministry of Agriculture should also develop a policy that will endeavour to enhance farmers' knowledge acquisition through participatory training, field demonstration and experimentation. This will enhance their ability to value the importance of demanding for services from the different extension advisory organization at an appropriate time. The empowerment of the farmers will lead to improved demand for extension services resulting in maximum engagement of extension service providers, consequently change in perception. The significant change in perception will enhance interaction among extension service providers and the farmers and ultimately increased agricultural production for food security and increased income.

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REFERENCES

Bordens, K.S.B. and Abbort, B.B. 2008. Research design and methods. NY. Mc. Graw-Hill

Government of Kenya, 2001. National Agricultural Extension Policy (NAEP), Kenya. Industrial Printers Press.

Government of Kenya, 2004. Interim Poverty Reduction Strategy Paper. Ministry of Planning. Nairobi.

Gustafson, D.J. 2002. *Supporting the Demand for Change: Recent Project Experience with Farmer Learning Grants in Kenya.* A case study prepared for the workshop: Extension and Rural Development. A convergence of views and international approaches. Washington D.C. Information accessed on 12/10/2004 from: http://www.wb.gp./access. ref/htm

International Initiative for Impact Evaluation, 2010. The impact of agricultural extension services. 3ie synthesis review. SR009 Protocal. Retrived from www.3ieimpact. org/admin/pdfs_synthetic/009%20Protocol.pdf: Date: 12/03/2012

Madukwe, M. 2006. Delivery of agricultural extension services to farmers in developing countries CTA Publication. Wageningen. The Netherlands.

Madukwe, M. 2006. Delivery of agricultural extension services to farmers in developing countries CTA Publication. Wagenigen. The Netherlands.

Rivera, M. W. 2001. Whither Agricultural Extension Worldwide? Reforms and Prospects: A revised version of Paper prepared for the conference on Knowledge Generation and Transfer. Implications for Agriculture in the 21st Century. University of California, Berkeley.

Rivera, W.M. 2003. The Invisible Frontier: the current limits of privatization and decentralization in the developing countries; *Journal of International Agricultural and Extension Education* Retrieved from: *www.aiaee.org/ attachments/152_Vol-13.2.pdf on 14/03/2012*

Zhou, Y. 2010. Reinventing agricultural extension to smallholders. Retrieved from www.syngentafoundation. org/view/element_href cfm?src on 14/03/2012

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