



RESEARCH ARTICLE

BOTTLENECKS OF IMPLEMENTATION OF NATIONAL AGRICULTURAL EXTENSION POLICY REFORM ON IMPROVEMENT OF AGRICULTURAL FOOD PRODUCTION THE CASE OF SIAYA AND KILIFI DISTRICTS, KENYA

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ABSTRACT

The intent of this study was to assess the shortcomings of implementation of National Agricultural Extension Policy (NAEP) reforms on agricultural food production and poverty status among small-scale farmers in Siaya and Kilifi Districts. Ex-post facto survey design was used and three semi structured questionnaires and one focus group discussion guide were used to collect data from policy makers as key informants, administrators in extension service provision and extension workers. Findings indicated that effective implementation of NAEP was hampered by failure to legalise NAEP as a government policy document prior to implementation, the process used for capacity building the extension workers was ineffective due lack of planning by planners and this resulted in inadequate funds, the restructuring of the Ministry of Agriculture, staff movement during implementation process which destabilised the process of implementation, and absence of organizational support for NAEP implementation. The paper recommends development of policies that will ensure the Ministry of Agriculture prepare a policy that will encourage training of specialists in policy making process and induction of new officers and continuous training for serving officers to be familiar with policies that are introduced into the system. Employment of planners and training and collaboration activities intended for the purpose of ensuring effective implementation of policies should be planned for in the budget and effectively implemented. This will avoid the mistakes that are made during policy making and have adverse effect during implementation process and use of trickledown of information that delays or hampers implementation of policies.

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INTRODUCTION

The effectiveness and efficiency of Agricultural extension and its advisory services play 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). Until 1999 to 2000, the performance of the agricultural sector for most of the developing countries such as Bangladesh, China, Ghana, Mali, Nigeria and Kenya mainly depended on government extension and advisory services (World Bank (WB), 2000, as cited in Yuan Zhou, 2008). During this period, the government agricultural extension service system was the sole service provider and depended mainly on funding from international organizations such as International Fund for Agricultural Development (IFAD), the Food and Agricultural Organization (FAO), United States

Agency for International Development (USAID) and the Swedish International Development Agency (Sida). In spite of the high cost of financing public sector extension in most of the developing countries, especially in Africa and Asia, agricultural production 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 blame for ineffective and inefficient extension system began in the late 1980s resulting in introduction of Structural Adjustment Programme (SAP), reduction in budgetary allocation and a call for a greater role by private sector in 1999 to 2000 (Rivera, 2001). The reforms were anchored on the premise that pluralistic service would provide appropriate mix of public and private funding and delivery mechanisms for extension, which would achieve differing agricultural goals and serve diverse target population (Anandajayasekeram,

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Puskur, Workneh, Hoekstra, 2008, as cited in Yuan Zhou, 2010). The introduction of the reforms in both developed and developing countries was guided by specific country's objectives but in line with the international reform strategies on which to formulate and evaluate progress. The strategies included shifting of agricultural extension services from central government to sub-government institutions for improved accountability and responsiveness, decentralization of the burden of extension costs to private sector, and the general management of the programme through farmers' participatory involvement in decision making and ultimately taking the responsibility for the extension programmes (Rivera, 2000, as cited in Rivera, 2001a).

In order to implement the reform initiatives in respective countries, a 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 2001b; Government of Kenya (GoK), 2001). In Kenya, the main components of the policy were the development of pluralistic and demand driven approaches, and involvement of farmers in planning, implementation of agricultural projects and programmes and in resource management. These components were to encourage a more liberalized agricultural extension service system with a diversified mix of agricultural extension services providers. The mix of players included mainstream government agricultural extension services, non profit 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, 2004a). The global progress towards combating hunger and poverty through implementation of the policy reforms was noted to be uneven and too slow (United Nations, 2002). To chart the way forward and address challenges facing developing countries, world leaders set time bound and measurable goals commonly referred to as 'The Millennium Development Goals (MDGs)' and targets in 2002. Goal number one (MDG-1) emphasized eradication of extreme poverty and hunger. The goal had two targets which were to half between 1990 and 2015, the proportion of people whose income is less than one dollar per day, and to half between 1990 and 2015 the proportion of people who suffered from hunger. Hunger in this case is one that emanates from insufficient household food, both nationally and at household level due to low food production and diminished purchasing powers (United Nations, 2002). In response to the MDG 1, African Union (AU) formed the New Partnership for African Development (NEPAD) to facilitate and chart the way forward by developing its objectives. The first primary objective was to eradicate poverty in Africa by mobilizing adequate resources, both domestic and foreign (United Nations, 2002, cited in GoK, 2005; Republic of South Africa, 2004). For the NEPAD to achieve the objective, in 2003, the AU assembly established the Comprehensive Africa Agriculture Development Programme (CAADP), an agricultural programme within the NEPAD. The CAADP works falls under four pillars dealing with key issues. Pillar three aims to increase food supply and reduce hunger across the region by raising smallholder productivity and improving responses to food emergencies. While pillar four aims to improve agricultural research and systems and farmers' lives through dissemination of appropriate new agricultural technologies in Africa's largely farming based economies (Republic of South Africa, 2004).

The Kenya government responded to both the MDG 1 and NEPAD's first primary objective and CAADP's objectives by formulating and implementing NAEP and National Agricultural Livestock Extension Programme Implementation Framework (NALEP-IF), as the umbrella framework for implementing agricultural extension projects. The NALEP-IF emphasised on the use of Shifting Focal Area Approach (SFAA), a nurse model which focused its activities in identified and selected locations in divisions and districts for a given period of one (1) financial year using farmer groups. Farmers in selected areas were grouped into common interest groups (CIGs) based on individual farmer's interest. The groups were to be visited regularly based on their demands by frontline agricultural extension officers and subject matter specialists from different agricultural extension services providers (Ministry of Agriculture (KMoA), 2002). However, a review of the NAEP showed that despite the increase in agricultural production in some parts of Kenya, food insecurity still remains a challenge. This necessitated the review of the policy in the year 2005 (GOK, 2005). The outcome of the review necessitated development of the new National Agricultural Sector Extension Policy (NASEP) (KMoA, 2011) and a sessional paper. The sessional paper is anchored within the context of Agricultural Sector Development Strategy 2010–2020 (ASDS) which outlines ways to transform the agricultural sector to encompass innovative, commercially-oriented and modern agricultural undertakings principles (KMoA, 2011). Therefore the objective of this study was to establish the bottles of NAEP reform implemented in 2001 and establish reasons why it had failed to improve agricultural food production for alleviation of poverty among small-scale farmers in Siaya and Kilifi Districts.

METHODOLOGY

Study Location

The study was conducted in six sub-counties of Siaya and Kilifi Counties. The sub-counties were Yala, Ugunja and Wagai. Siaya and Vitengeni, Ganze in Kilifi County respectively. Siaya and Kilifi Counties is one of the forty three Counties in the Kenya found in Western region of the Country. The County covers an area of 132,000 hectares of land and is divided into six sub-counties with an estimated population size of 603,693 persons. It has five ecological zones with an estimated 37% of the high potential arable land. The area receives a bimodal rainfall pattern ranging from 1,800mm-2000mm per annum on the higher altitude and 800mm to 1600mm on the lowlands and the temperature ranges between 15°C –21°C. Most of the agricultural activities are subsistence farming. The main crops grown are maize, sorghum, beans, sweet potatoes and finger millet and most farmers plant local seeds. The County experience a general food deficit in maize production as it is able to meet about 65% of its requirements (GoK, 2004b). The county's household food poverty is 34%. Kilifi County covers an area of 50,448 km² (GOK, 2004c) and is divided into seven administrative divisions with an estimated population of 63,218 farm families. Food production which is within the low potential regions of the country has also continued to be low (GOK 2013). Most of the farmers are mainly small scale farmers occupying four coast lowland zones. The County food poverty rating is 66.1% (KNBS, 2007;GOK, 2004c) and this makes it susceptible to dependency on relief food most of the times in the year.

The Research Design

The study used Ex-post-facto survey design. The design was appropriate for the study since the research aimed at observing and understanding the effect of transfer of agricultural technology and the status of household food security long after implementation of NAEP had taken place from a sample drawn from a target population. The design allowed field exploration and the use of semi-structured questionnaires to gather information at just one point in time.

Sample Selection

The study sample was drawn from 1) 5 policy makers at the Ministry Headquarter as key informants 2) a saturation of all Agricultural extension officers from the Ministry of Agriculture, private non-profit making (NGOs) and private profit making organizations in the field. A combination of purposive and simple random sampling, were used. Purposive sampling was used to select the key informants and the two counties where the policy reform was implemented. Simple random sampling was used to select three sub-counties from each county respectively. A saturated sample of all the 22 and 12 Extension Workers (EW) from the Ministry of Agriculture, Non-Governmental Organizations and private profit making organizations were selected in Siaya and Kilifi County respectively.

Data collection

Research instruments

One set of semi-structured questionnaire and semi-structured interview schedule were developed and administered to small-scale farmers and to agricultural extension officers to collect data on status of transfer of agricultural technology and status of household agricultural food production. Observation schedule was used to make observation in the field on the condition/performance of the agricultural productivity in the field. One set of Focus Group Discussion (FGDs) was used to guide farmers' group discussion

Validity and Reliability

Validity of the instruments was confirmed before being used for data collection in the field. The validation was done for both the questionnaire and the interview schedule. This was important to ensure standardization of the instruments. The instruments were presented to five (5) individual experts in the area of agricultural extension to assess the extent of external and internal validity of the instruments. Their comments were then incorporated into the instruments before being used in the field. To determine reliability, a pilot test was administered to a sample of 20 respondents in one of the focal areas in the County. The sample was selected from one of the focal areas, which was not among the study area. Cronbach's coefficient Alpha was computed to determine reliability coefficient. From the computation, a coefficient of 0.82 was obtained.

Data analysis

The collected data were analysed using statements from interviews, while descriptive statistics such as frequency tables and percentages and inferential statistics, paired sample t-test were calculated using the SPSS version 20.0.

RESULTS AND DISCUSSION

It was necessary to find out why the NAEP reform had not improved agricultural food production and poverty status of small-scale farmers. In order to realise this objective, policy makers at the national level, administrators of extension at the provincial, district level as well as frontline agricultural extension officers were asked several questions on the process of implementation using three sets of interview schedules.

NAEP Implementation by Policy Makers

The first interview schedule sought to solicit information from policy makers on; if implementation process of NAEP held sensitization seminars of stakeholders, implementation process of NAEP operationalised a monitoring and evaluation system, proper mechanisms were put in place to ensure effective implementation of the reforms and if there were challenges they faced during the implementation. The results are as shown in Table 1.

The results in the table reveal that

Sensitization seminars were held. The key informants explained that one sensitization seminar was held at the national level for all the stakeholders who were to disseminate the information to the subject matter specialists at the District and Divisional level and to frontline agricultural extension officers prior to policy reforms implementation. The stakeholders included administrators of agricultural extension services from the Provincial and District headquarters and from private sector. One sensitization was adequate if it ensured inclusion of all stakeholders who are in administrative positions since its aim was to inform stakeholders of the reform. Sensitization seminar was essential for provision of a formal setting conducive for verbal communication, also for interaction and clarification on the topical areas of the agenda and distribution of additional information in form of literature such as policy document and its implementation framework and any relevant materials to assist in the cascading of same information to the rest of the extension staff in a formal setting.

A Monitoring and Evaluation (M&E) was put in place. The policy makers explained that the team that was tasked with ensuring effective and efficient implementation of the reforms was operationalized initially at National level and later cascaded at the Provincial and District level. The findings are inconsistent with those of Shapiro (2002) and World Bank (2004b) in which it was observed that monitoring and evaluation system which is part of planning should be implemented at the same time at all levels starting from the national level down to the district level. The establishment of M & E at the National level was essential. Its operationalization is important in implementation of intervention as it allows for comparing the situation as captured in baseline data and determines if any improvement has taken place. For instance it determines if learning or changes have taken place and allows the implementers to gain insights in the process of implementation and consequently make changes appropriately. No mechanisms were put in place to guide effective implementation of the policy reforms. Lack of mechanisms to guide implementation process of the policy reform affects achievement of its benefits, especially in this circumstance that involved several agricultural extension service provider with different objectives and sources of funding who may wish to collaborate as stipulated in the policy.

Table 1. NAEP Implementation by Policy Makers

Items on the implementation process	Policy makes (n= 2) Ministry of Agriculture Headquarters	
	Yes	No
Sensitization seminars	Yes	
Monitoring and Evaluation	Yes	
Mechanism to guide implementation process		No
Legalization of the NAEP policy		No
Coordination of the inter ministerial activities		No
Mechanisms for Sustenance of implemented NAEP	Yes	

The policy encouraged collaboration to reduce duplication of activities at farm level and save on resources such as time and money (GoK, 2001). Service providers may not be willing to collaborate if they do not have much in common and no mechanism to spell out how to collaborate and the extent of collaboration. The outcome of such a scenario where organisations cannot work together and yet are serving the same client is duplication of the activities in the field, which may lead to low farmer coverage and low output. The NAEP policy did not undergo the process of legalization. Information elicited from the policy makers indicated that the policy document was not legalised as a government policy and this resulted in: Difficulty to implement some of the sections that required legal backing like partial privatization of agricultural extension services and cost recovery from farmers in livestock sector. Also, there was failure of some stakeholders to honour the policy as providing official guideline in agricultural extension services delivery.

These findings are contrary to studies by Contado (1997, as cited in Swanson, Bentz & Sofranko, 2004; Ellis, 1999) who noted that the Global Consultation on Agricultural Extension had recommended that agricultural extension policy should be formally enacted through legislative action to provide a stable policy foundation, an explicit mandate, and a clear direction for developing and executing programmes so that it can be accepted by all. The implication of these findings indicate that failure to legislate the NAEP may have been due to inadequate knowledge among policy makers who participated in the formulation process considering the very low percentage of policy specialist in the Ministry of Agriculture. For instance, one respondent stated that

“most of the participants were not informed on the process of policy formulation and this made the process to take longer than expected and forced the government to put in place a ‘dream team’ that was to fast track the process”.

The response on Inter-ministerial coordination was negative. Reasons given by the policy makers indicated that the Ministry of Agriculture was unable to influence and control the implementation process since the government relied heavily on external funding for its agricultural extension services delivery. This implies that dependence on external funding affected its ability to control the process of implementation which involved several players including development partners who influenced the decision on how agricultural extension services were to be delivered.

The reliance on external funding could be due to lack of a proper policy structure put in place by the government to guide on how to fund its agricultural extension services. As the saying goes ‘he who pays the piper calls the tune’. These results are sustained by those of Rivera and Cary (1997, as cited in WB, 2000) who established that questionable structure and forms of agricultural extension delivery of publicly funded

agricultural extension in developing countries where governments have been slow to increase appropriations for many publicly funded activities had curtailed some of its functions. Sustenance of implementation process was achieved by combining all the agricultural oriented activities to be carried out under the Ministry of Agriculture as one ministry. The policy makers explained that the process of sustenance was disrupted in the third year (2003) when the Ministry of Agriculture was subdivided into four ministries namely: Ministry of Agriculture, Ministry of Livestock Production and Development, Ministry of Fisheries and Ministry of Co-operative Development and Marketing. The findings implies that the subdivision of the Ministry affected the sustainability of the changes which were being implemented by the then KMoA due to shifting of staff to new stations, reduction of the number of agricultural extension officers in some areas and change in objectives for the new ministries. These findings agreed with those of Contado (1997, as cited in Swanson et al., 2004) who found that the frequent changes in the organizational structure and programme priorities, rapid turnover of extension staff and lack of coordination between different organization that undertake extension work can negatively affect the extent of policy implementation. The policy makers further explained that it was not possible to engage the new ministries to continue with the implementation of the policy reforms. The challenge the Ministry of Agriculture faced was that the new Ministries failure to use the policy document and its implementation framework (NALE-IF) resulting in disparity in the implementation. One policy maker stated that:

“The new Ministries did not adopt effectively the NAEP and its NALEP-IF since it was not binding as a government policy for general agricultural extension service delivery. Also they had different vision, mission and mandates or did not actively participate in the process of policy making”.

The findings are consistent to those of Contado (1997, as cited in Swanson., 2004) who observed that extension policy that are legitimized and enacted into law by parliament has the advantage of greater relevance of acceptance and adoption by stakeholders. Contado further observed that countries with enacted policies tend to have well organized, financially stable extension systems that have sustained effectiveness and cumulative impact.

NAEP Implementation by Extension Administrators

Administrators of extension at the district and provincial level were asked questions pertaining to awareness of various activities that took place in the initial stages of policy implementation, participation in some of the activities and challenges they faced in the process of implementation of the policy reform.

Agricultural Extension Administrators' Awareness of the Initial Steps of NAEP Implementation in Siaya And Kilifi Districts

Administrators of extension at the district and provincial level were asked several questions related to their awareness of the initial steps of implementation of NAEP. Tables 2 present results obtained from administrators with respect to the questions. The results in Table 2 show that over 50% of administrators of extension at the Provisional and district level in Siaya District were aware of NAEP reform, policy pilot testing and of NALEP IF document with a 100% being aware of monitoring and evaluation strategy. Awareness in all the activities of NAEP reforms in Kilifi District was much lower (16.7%) than in Siaya with none being aware of monitoring and evaluation strategy. Observation made in the field using an observation schedule indicated that some administrators were not aware of the policy documents despite being in their office library. The qualitative data collected from the field indicate that a low percentage of awareness among extension administrators as a factor which may have contributed to failure of the policy to improve agricultural production were due to:

sensitization seminars for agricultural extension officers at the field level was not common and this weakened the process of dissemination. WB (2004a) explained that seminars allow for clarification of issues in the innovation to ensure a common understanding of the process involved.

- Failure to read documents within their custody. These findings are similar to those done by Kachala (2007) who observed that most people do not read literature even when it is within their reach. This is due to lack of reading culture perceived to be a sore in the eyes of many organizations. Kachala noted that development of agriculture can only be steered by knowledgeable society that fully participate and positively contribute to national development. The findings are also similar to those done by Desai and Reddy (1992, as cited in Gahukar, 2010) who observed that subject matter specialists who are placed in advisory positions and evade reading most of the literature in their custody end up thwarting the process of information dissemination to the end user. Failure to read the document can be due to a poor reading culture among the administrators and the FEWs affected the dissemination of information and knowledge in the documents.

Table 2. Administrators of Extension Awareness of the Initial Steps of NAEP Implementation in Siaya and Kilifi Districts

Awareness of respondents in various activities	Administrators (n= 12)			
	Siaya (n= 6)		Kilifi (n= 6)	
	<i>f</i>	%	<i>f</i>	%
Awareness of NAEP reforms	5	83.0	1	16.7
Awareness about policy pilot testing	5	83.0	1	16.7
Awareness of NALEP IF document	4	66.7	1	16.7
Awareness of monitoring and evaluation strategy	6	100	0	0.0

Table 3. Extension Administrators' Participation in NAEP Implementation in Siaya and Kilifi Districts

Participation of respondents in various NAEP implementation activities	Administrators (n= 12)			
	Siaya (n= 6)		Kilifi (n= 6)	
	<i>f</i>	%	<i>f</i>	%
Sensitization seminars of the policy	4	66.7	2	33.3
Training of farmers on policy reforms	4	66.7	2	33.3
Organised agricultural tours on policy	4	66.7	1	16.7
Workshops and seminars held on monitoring and evaluation	4	66.7	1	16.7
Collaborative activities	6	100	2	33.3
Field days and on farm demonstrations	6	100	6	100

Table 4. FEWs' Awareness of NAEP Implementation in Siaya and Kilifi Districts

Awareness of NAEP implementation process	Frontline agricultural extension officers (n= 34)			
	Siaya (n= 22)		Kilifi (n= 12)	
	<i>f</i>	%	<i>f</i>	%
Awareness of NAEP reforms	8	36.4	4	33.3
Awareness about policy pilot testing	11	50.0	4	33.3
Awareness of NALEP IF document	8	36.4	5	41.6
Awareness of M & E strategy	7	31.8	4	33.3

- Failure of administrators to attend sensitization seminars and to facilitate FEWs' sensitization seminar which was an essential component of implementation of the policy reforms. Failure to hold sensitization seminars was attributed to inadequate financial support by the government to facilitate the process. Sensitization seminars were important for effective implementation of NAEP reform. Seminars are one way of ensuring effective dissemination of information. The study findings agreed with those of the WB (2004a) who showed that holding of

- Low percentage of awareness observed in Kilifi District as compared to Siaya. This was majorly due to absence or fewer projects implemented and funded by development partners. The low percentage may have contributed to the ineffectiveness of the reforms.

Extension Administrators' Participation in the Initial Steps of NAEP Implementation in Siaya and Kilifi Districts

Extension administrators at the provincial and district level were asked questions related to their participation in the initial

steps of implementation of NAEP. Tables 3 present results obtained from administrators with respect to the questions. The results in Table 3 show that all of extension administrators sampled in both Siaya and Kilifi Districts participated in field days and on farm demonstrations. All of agricultural extension administrators in Siaya District participated in collaborative activities whereas in Kilifi only 33% participated. Over 60% of administrators of extension in Siaya participated in sensitization seminars, training of farmers, organized agricultural tours and in workshops and seminars compared to Kilifi District that registered less than 35% in the same activities. Observation made in the field and personal correspondence (2005 to 2007) indicated that implementation process of the reforms was a collaborative effort from various agricultural extension services providers. The NALEP programme which spearheaded the implementation of the reforms was funded by NALEP-Sida and NALEP-GoK funded by the Kenya Government. Implementation in Siaya District was spearheaded by NALEP-Sida in collaboration with NALEP-GoK and had more projects in relation to Kilifi District in which the implementation was spearheaded by NALEP-GoK who's funding for various activities was inadequate.

These findings are inconsistent with those of Swanson and Samy (2003) who observed that participation of agricultural extension officers in various activities implemented by any programme was an important element in successful decentralization of national extension system and encouraged the building of technical capacity and motivation which resulted in participants owning the process. The observed differences in extension administrators' participation in various activities registered in Kilifi and Siaya Districts influenced the effective implementation of the policy reforms. The difference in participation in the two districts was due to implementation of projects and programmes. Participation was one of the components of the policy which was to allow for interaction and negotiations crucial for knowledge and information sharing and consequently empowering individuals for competence in their work. Therefore high percentage of participation in Siaya district contributes to effective implementation of the policy reforms compared to Kilifi. The low percentage in organised tours and in workshops and seminars held on monitoring and evaluation in Kilifi district could have been due to inadequate planning. The registered high percentage of participation in field days and demonstrations in both districts could be attributed to activities being held locally with less financial commitment from all stakeholders.

NAEP Implementation by Frontline Agricultural Extension Officers

Using the third interview schedule, Frontline Agricultural extension officers (FEWs) in both Siaya and Kilifi Districts were asked questions pertaining to awareness of various activities that took place in the initial stages of policy implementation, participation in some of the activities and challenges they faced in the process of implementation of the policy reforms.

Frontline Agricultural Extension Officers' Awareness of the Initial Steps of NAEP Implementation in Siaya and Kilifi Districts

Frontline agricultural extension officers in both Siaya and Kilifi Districts were asked questions related to their awareness

of the initial stages of implementation of NAEP. Tables 4 present results obtained from FEWs with respect to the questions. The results in Table 4 show that except for 50% of the FEWs who were aware of policy pilot testing in Siaya District and 41.7% in Kilifi District, awareness in the rest of the activities of NAEP reforms was less than 40%. Data collected using an observation schedule (Appendix 5) and in FGDs (Appendix 6) indicated that some FEWs were not aware of the policy documents despite being in the districts' office libraries. The low percentages of awareness among FEWs were due to: Inability of extension administrators to facilitate FEWs' sensitization seminar which was an essential component of implementation of the policy reform. Inability to hold sensitization seminars could be attributed to inadequate financial support by the government. The funds were to facilitate the process which is necessary in cascading of information and knowledge verbally from policy makers through extension administrators.

The limitation of funds to hold seminars could have been addressed by implementing alternative approaches to policy implementation such as publicity raising through posters, mass media and chiefs' barazas. The study findings agreed with those by the WB (2004a) that holding of sensitization seminars was not common and failure to hold them weakened the process of dissemination of information and verbal clarification of issues in the innovation to ensure a common understanding of the process. Inaccessibility to literature which the administrators had in their custody and caused by poor of reading culture attributed to lack of individual inner drive made crucial information not reaching the end user. The negative effect was high due to the Ministry's reliance on trickle down approach practiced in dissemination of policy matters being passed first to administrators in senior management positions and then cascaded to their juniors. Consequently, this may have negatively affected the output and outcome that was expected. These findings agreed with those by Kachala (2007) who observed that most people do not read literature even when it is within their reach due to lack of reading culture.

Frontline Agricultural Extension Officers' Participation in the Initial Steps of NAEP Implementation in Siaya and Kilifi Districts

Frontline agricultural extension officers were asked question pertaining to their participation in the initial steps of implementation of NAEP in the study areas. Tables 5 present results obtained from FEWs with respect to the questions. The results in Table 5 show that all FEWs in both Siaya and Kilifi Districts participated in field days and on farm demonstrations. While all of FEWs in Siaya District participated in collaborative activities, only 33.3% participated in Kilifi District. Of all the FEWs in Siaya District, 50% indicated that they participated in both sensitization seminars, and training of farmers on policy, but less than 40% participated in organized agricultural tours and in workshops and seminars.

However, in Kilifi District, only 41.7% participation in sensitization seminars and training of farmers, and less than 35% and 10% participated in organised tours and in workshops and seminars respectively. Observation made in the field indicated that implementation of NAEP in Siaya District was funded by NALEP-Sida programme in collaboration with the NALEP-GoK and community based projects funded by

Table 5. FEWs' Participation in NAEP Implementation in Siaya and Kilifi Districts

Participation in NAEP reform implementation activities	Frontline agricultural extension officers (n= 34)			
	Siaya (n= 22)		Kilifi (n= 12)	
	f	%	f	%
Sensitization seminars of the policy	11	50.0	5	41.7
Training of farmers on policy reforms	11	50.0	4	33.3
Organised agricultural tours on policy	8	36.4	2	16.7
Workshops and seminars held on monitoring and evaluation	8	36.4	1	8.7
Collaborative activities	22	100	4	33.3
Field days and on farm demonstrations	22	100	12	100

development partners and private sector as opposed to Kilifi where the policy was implemented by NALEP-GoK and other organization. The high participation of FEWs in most of the activities in Siaya District compared to Kilifi District's indicates that one district was more endowed with more projects that facilitated the funding of the activities than the other. The reasons for low participation of FEWs in the organised tours, workshops and seminars held on monitoring and evaluation registered in both districts as opposed to the high participation in field days and demonstrations could have been due to lack of financial commitment from all collaborating organizations in the study areas. Lack of funds may have been caused by inadequate planning by planners. The higher percentage of participation in collaborative activities in Siaya District could have been due to the presence of more projects and more agricultural extension services providers in the district compared to Kilifi District. The low percentage of participation which is crucial for capacity building to ensure competency affected the extension workers ability to access and contribute to generation of appropriate agricultural technology and information that was to be disseminated to farmers. The observed low percentages of participation in various activities in Kilifi District are not in line with those found by Swanson and Samy (2003) who recommended that for successful decentralization of national extension system, agricultural extension officers should participate in various activities that are implemented by agricultural oriented programmes to ensure technical capacity building.

Challenges Faced by Administrators of Extension and FEWs' in NAEP Implementation in Siaya and Kilifi Districts

This section discusses challenges faced by administrators of extension at the district level as well as frontline agricultural extension officers. Data gathered in FGDs to identify challenges that faced the process of capacity building on policy reform issues indicated that:

Awareness: There were inadequate funds to facilitate awareness creation sensitization seminars of the policy reforms at the provincial, district and divisional level. Financial constraint was more common in areas where implementation process was being funded solely by the government or government in collaboration with private sector as opposed to those funded by international development partners in collaboration with the government in addition to private sector. These findings agreed with those of Contado (1997, as cited in Swanson et al, 2004) who found that the extent of policy implementation can be a challenge when funds are not adequate and implementation framework does not indicate the source of funding.

According to Swanson (1990, as cited in Swanson *et al.*, 2004), a study done by FAO in 1999 showed that developing countries' government support to extension is averagely 0.5% of the GDP compared to government's agricultural gross domestic product (AGDP) which lead to low agricultural production. The implication of these findings is that the government did not allocate adequate funds to facilitate FEWs' sensitization seminars. This could be attributed to Planners in Ministry of Agriculture's inadequate planning that affected government budgetary allocation for dissemination of the policy reform components in the field.

Organization support for NAEP implementation: Proper organization for creation of awareness was inadequate. Most of the awareness of NAEP reforms was done mainly through briefs from supervisors to their juniors during field supervision, administrators' consultation visits to supervisors' offices and Ministry headquarters and through personal initiatives. The findings imply that creation awareness may not have been planned for and there were no funds to hold training and seminars at all levels were inadequate.

Policy interpretation: The FEWs encountered difficulties in accessing literature on policy issues, especially if one did not attend any seminar or workshop. This affected their understanding and interpretation of the NAEP. The FEWs relied on their supervisors who attended seminars on policy implementation to cascade the information to them during the supervision process or in workshops and seminars. The difficulty in accessing literature could be attributed to reliance on trickle down or cascading of information to frontline agricultural extension officers by their seniors. Inability to access such information affected crucial policy matters and information necessary for improving efficiency and effectiveness of agricultural extension services. Accessibility was made worse by low percentage of awareness of the implementation process and subject matter specialists and inability to hold sensitization seminars due to lack of funds.

Policy instruments: Some field staff could not make a distinction among NAEP, NALEP and NALEP IF documents as the names were always used interchangeably by their superiors in the field. The observed confusion in distinguishing the documents could be attributed to change of staff in work places or in projects especially if new entrants were not informed about the project activities. This scenario was manifested more when a new officer was placed in supervisory position.

Conclusion and Recommendation

Conclusion

Effective implementation was hampered by failure to legalise NAEP as a government policy document, ineffective capacity

building due lack of planning by planners for implementation process resulting in inadequate funds, restructuring of the Ministry of Agriculture, staff movement during implementation process which destabilised the process of implementation, and absence of organizational support for NAEP implementation.

Recommendation

On the basis of the key findings and conclusions of this study, the Ministry of Agriculture and related stakeholders should develop policies that will encourage recruitment and training of specialists in planning and policy making process. The Ministry should put in place mechanisms that will ensure induction and orientation of new officers and continuous training for serving officers to be familiar with policies that are introduced into the system. The induction, training and collaborative activities should be planned for in the budgets. This will allow for inclusive participatory where all partners have an equal level ground and avoid the mistakes that are made during policy making that cause adverse effect during implementation process. It will also reduce the use of trickle down of information that delays or hampers implementation of policies.

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