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OPPORTUNITIES AND INNOVATIONS AVAILABLE TO SMALL HOLDER FARMERS IN COPING WITH RAINFALL VARIABLITY IN BUNYALA SUB-COUNTY, BUSIA COUNTY, KENYA

Dr. James Owino

Bomet University College, Kenya

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***Corresponding author:** Dr. James Owino
Bomet University College, Kenya

Abstract

Research has shown that small-holder farmers in developing countries are more vulnerable to rainfall variability due to their high reliance on rainfed agriculture and poor coping capacity. This has led to crop failure and livestock death affecting the livelihood and food security status of the farmers. This has led to the need to find solutions to enable farmers secure sustainable livelihoods. It is against this background that this study sought to examine the opportunities and Innovations open to Small holder Farmers to enable them cope better to rainfall variability in Bunyala Sub-county.

Data collection tools used included, questionnaires, interviews, focus group discussions, field observation and photography was also used to examine the opportunities and Innovations open to Small Scale Farmers to enable them cope better. Bunyala Sub-County has about 15,245 households in six locations. Proportionate stratified sampling was used to select the required number of respondents. The stratification was based on the populations of six locations. A total of 384 households were randomly selected and sampled from the selected locations together with 11 key informants. Qualitative data analysis techniques were used while the results were presented in tables, figures and charts. Findings of the study indicates that despite changes in livelihood activities to cope with the changing climatic conditions farmers still suffer loses and reduced income, there is however a ray of hope offered by the many opportunities and innovations farmers are undertaking. The study recommends that coping practices must be promoted while simultaneously strengthening long-term, sustainable institutional responses to help households adapt to rainfall variations. There is need to promote livelihood diversification initiatives that enhance improved income generation at the same time ensuring they have minimal negative impacts on the environment. The farmers should be encouraged to make use of innovations and opportunities available such as Access to credit, Access to information, Access to facilities and services and technology. They should be sensitized on the need to engage in sustainable adaptation strategies such as planting drought tolerant crops and use of.

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agricultural technology. Small-scale farmers should focus on information gathering from agricultural and financial institutions to enhance social networks and improve on their financial capability. Local communities should be empowered through training and skills enhancement to improve small-scale agricultural productivity

Keywords: *opportunities, innovations, coping, rainfall variability*

1. Introduction

In the field of agricultural sustainability, smallholder farmers are confronted with rainfall phenomena, which are sort of unpredictable and less controllable. The inconsistency in rainfall experiences, formulated by reduced precipitation, leads to the negative impacts in productivity as these farmers may face low levels of crop outputs, water insufficiency, among other effects (Nyberg et al., 2021). As the climate changes further, the farmers living in smallholder communities become more exposed to and also must deal rainfall variability. In the brink of these extremes, mitigating the effects of rainfall variability through adaptation becomes indeed an imperative for the persistence and good performance of the farming communities. In order to deal with this (the discussion) issue sharply, it is necessary (to have a grip on) the terms that are central to the discussion. Small-scale farmers, mostly in marginal areas, hold a strategic position in government endeavors for global food safety, as they can feed their small plots of land. The rainfall variability represents the difference from an average intensities of precipitation, subject both to its exceeding and its short-fall (Nyberg et al., 2021). Farmers use a range of coping strategies which are the tools they apply to minimize the effects of unpredictable change in rainfall and enabling their farming to withstand as sustainable despite uncertainties. This paper is a study of the vast range of options and the creativity inherent to smallholder farmers that are employed in their struggle with unreliable rainfall. While drought and flood regimes increasingly become severe its imperative to examine traditional methods to modern technologies solutions such as adaptive strategies, water conservation approaches and novel techniques that make smallholder farmers successful despite a frequently unpredictable climatic situation. By exploring these ways, this paper is going to give out recommendations which in turn help to obtain the necessary knowledge in addition to improve the resilience and productivity in the sector of smallholder farming, thus, in future, the global agriculture will be more secured and sustainable.

2. Empirical Literature

Agriculture Opportunities

An opportunity is an idea or dream that is discovered or created by an entrepreneurial entity and that is revealed through analysis over time to be potentially lucrative' (Short et al. 2010). In line with Kor et al. (2007), an opportunity is not necessarily seen as a completely new innovation to the economy but being new to the agricultural sector is sufficient to call a development option an opportunity. In Bunyala sub-county they exist multiple opportunities that can be exploited to improve the socio-economic status of small holder farmers in the wake of variations in rainfall.

Institutions play an important role in influencing how communities and households react to the effects of climate change. A study by Argawal et al., (2008) the duties of local institutions influence the impact of external interventions in shaping coping and improving the ability of the most vulnerable social network groups. This is important to the success of adaptation projects. Similarly, local institutions are important as they provide the policy framework within which local institutions such as Community Based Organizations and NGOs. The national institutions are instrumental in mobilizing capacity to intervene when extreme climate related hazards occur. Coordination between national and local level institutions is fundamental in this respect. Warner and Zakelideen (2012) asserts that many studies show that strong correlation between national and local institutions is crucial in disaster management, especially with regard to communication of information and disaster preparedness.

In Kenya, the new constitutional dispensation has brought about a two-tier government--national and county level governments. This has gone a long way in influencing the institutional environment with regard to climate change effects. The county governments have a critical role in dealing with challenges to poverty, resource mobilization, policy formulation, and implementation (GoK, 2013). They are responsible for responding to the development challenges of rainfall variability and to its effects on local level development and local community livelihoods.

Local civil society institutions include rural organizations, cooperatives, and savings and loan groups, among others. Private institutions include service organizations such as NGOs and CBOs and private businesses that provide insurance or loans. These local institutions shape the impacts of climate hazards in three important ways: they influence how households and families are affected by climate change impacts; they shape the ability of the households to respond to climate impacts and follow different adaptation practices; and they mediate the flow of external interventions in the context of coping and adaptation (Argawal, et. al., 2008).

However, institutional interventions need to be conversant of local needs of the community. Socio-economic and cultural perspectives are best captured when local communities and households are fully engaged in decision making. Gender issues are also critical in understanding key areas of intervention. Incoherent and Inadequate external support and inappropriate government policies limit the livelihoods outcomes and resilience of vulnerable households (Argawal et al., 2008). According to Ngigi, (2009), agricultural water management systems is one of the best solutions 'for adapting agricultural production to rainfall variability. Water management can be enhanced through a diversity of options such as digging shallow wells, boreholes and rainwater harvesting and storage facility (Ngigi, 2009).

Communities have a long record of coping to the impacts of weather through a range of practices including crop diversification, application of irrigation, water management, disaster risk management, and insurance. Besides seeking help, households may also pursue other strategies as part of their coping strategies. Many examples, which include temporary migration to find employment, longer workdays, collecting wild berries and collecting forest products for sale are noted (Thornton et al. 2009).

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Keeping livestock as an asset to cope with shocks is another common activity as a flexible and mobile resource with which to lower dependence on climate factors (Mertz et al. forthcoming), and it may solve short-term problems. The returns can also be negative, moreover, as a severe drought may cause destocking due to livestock dissemination or low fertility (Dercon, 2004). The end result may be the loss of some or even all livestock just when it is required as part of a self-insurance scheme.

Agriculture Innovations

Agricultural innovation is defined as the process whereby individuals or organizations bring existing or new products, processes, and forms of organization into social and economic use to increase effectiveness, competitiveness, resilience to shocks, or environmental sustainability, thereby contributing to food and nutritional security, economic development, and sustainable natural resource management (Tropical Agriculture Platform, 2016). It involves embracing new technologies – like diversifying genetic traits of crops to help farmers edge against an uncertain climate – and creating an enabling policy environment for adaptation (World Bank, 2011). In the absence of climate-smart agriculture, areas which are marginalised may become less suited for arable farming as a result of land degradation through deforestation, soil erosion, repetitive and overgrazing (World Bank, 2012). Climate-smart agriculture involves agricultural techniques – such as intercropping, mulching, integrated pest and disease management, conservation agriculture, crop rotation, agroforestry, integrated crop-livestock management, fish farming, improved water management, better climate forecasting for farmers – and innovative ways, like early warning systems (FAO, 2010 & World Bank, 2011; 2012). The existence of genetic diversity has special significance for the maintenance and promotion of productivity of smallholder farming systems, as diversity also gives security to farmers against pests and diseases, specifically pathogens that may be promoted by climate change. According to a study by Zhu et al. (2000) in China covering an area of 5,250 hectares farmers were advised to switch from rice monocultures to planting variety mixtures of local rice with varieties. The enhanced genetic diversity decreased blast incidence by 95 percent and increased total yields by 90 percent. By mixing crop species, farmers can delay the onset of diseases by reducing the spread of disease-carrying spores, and by changing surrounding conditions so that they are less favourable to the spread of certain disease-causing organisms. After three years, it was concluded that fungicides were no longer required (Zhu et al., 2000).

3. METHODOLOGY

3.1. Study Design

The design of the study was descriptive survey which allowed large amounts of data to be collected over a short period of time. It provided for numeric descriptions of the population. It also enabled the researcher to describe and explain relationships between dependent and independent variables. It was chosen because it assisted the researcher to establish the opportunities and innovations available among small scale farmers in view of rainfall variations. Further it assisted in exploring meanings, perceptions, and associations, describe, explain the phenomena and observe relationships between independent and dependent variables (Johnson & Onwuegbuze, 2004).

3.2. Selection and Description of the Study Area

Bunyala Sub County was selected as the study area because of its positioning since it is a region characterized by small farm holdings averaging 2.4 acres per household and is a marginalized agricultural area due to exposure to rainfall variations where both extremes are experienced that is floods and drought respectively. Bunyala Sub County is a particularly useful case for illustrating a region that has to cope to the double exposure of floods and drought. The agricultural sector in the sub county is particularly exposed to economic pressures due to its marginal farming conditions that are not conducive to large-scale production. Food production is on the decline exposing the residents to food insecurity. Due to rapid farm structural changes and changing climatic conditions, Bunyala Sub County provides an example of how farmers cope to multiple processes of change.

Bunyala Sub-County of Busia county of Kenya covers an area of about 185 km2, of which 112 km2 is arable land (Busia District Development Plan, 2009) and the total population from 2009 census is about 66,723 persons comprising 35,005 females and 31,718 males with a mean household size of six people. These households minimal land size is about 2.4 acres on which they their main livelihoods include crop growing and livestock keeping (Kenya National Bureau of Statistics, 2010). The mean annual rainfall in Bunyala sub-county is about 750–1,015 mm and has a gentle undulating slope through which River Nzoia flows, often spilling floodwaters over its banks on to large areas of the flood plain (Busia District Development Plan, 2009; Onywere et al., 2011). People have settled near the dykes along the river in some locations and encroachment into flood plains for agriculture, livestock keeping and fishing.

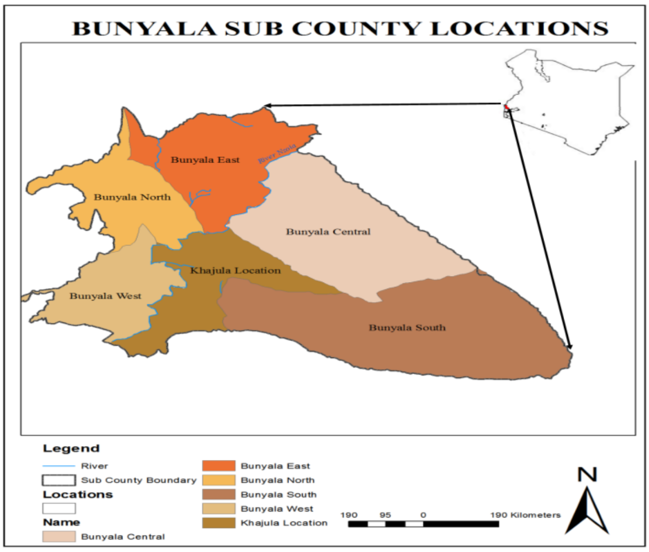

Fig 4. 1: Map of Bunyala Sub-County showing the study locations

Source: County Government of Busia

3.3. Target population

The study targeted households drawn from the six locations that comprise the sub-county. A total of 15,245 households were used to arrive at the sample size in the entire sub-county as shown in Table 3.1. The choice of households was informed by the need to investigate rainfall variability as perceived by households rather than individual farmers. The unit of analysis was the household and therefore the study targeted a total of 15,245 household.

Table 3. 1: Distribution of Households in Bunyala Sub-County

Location	Area (Km^2)	No. of Households
Bunyala West	14.6	3521

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Bunyala North	27.3	2710
Bunyala East	41.9	3318
Bunyala Central	47.7	2470
Khajula	20.1	1762
Bunyala South	36.8	1464
Total	**188.4**	**15,245**

Source: KNBS (2010)

3.4. Sample size and Sampling procedure

The sample size for the present study was based on the margin of error approach derived from the central confidence interval for proportions (Tabachnick & Fidell, 2013). Consequently,

$$ME = Z\sqrt{\frac{p(1-p)}{n}}$$

Where: ME=Desired Margin of Error set at 5% level for this study

Z= the z-score for the appropriate confidence interval for example 1.96 for the current study based on the 95% confidence interval.

P= the proportion of respondents expected to be successful in the sample. i.e. 0.5 in the present case since the true proportion is not known.

n = sample size (to be found)

Thus $0.05 = 1.96\sqrt{\frac{0.5(1-0.5)}{n}}$

$\Rightarrow n = (\frac{1.96}{0.05}\sqrt{0.5 \times 0.5})^2$

$= 384.16$

$\cong 384$

A sample of 384 was therefore selected for the study.

Both stratified and simple random sampling techniques were used to select the required 384 small scale farmers. First the sub-county was stratified in terms of the six locations. The number of farmers to be drawn from each location was proportionate to the population of households in each location relative to the entire sub-county.

Table 3. 2: Stratification of Sampled Households

Location	**Number of house holds**	**Number in sample**
Bunyala West	3521	$\frac{3521}{15245} \times 384 = 87$
Bunyala North	2710	$\frac{2710}{15245} \times 384 = 68$
Bunyala East	3318	$\frac{3318}{15245} \times 384 = 84$
Bunyala Central	2470	$\frac{2470}{15245} \times 384 = 62$
Khajula	1762	$\frac{1762}{15245} \times 384 = 44$
Bunyala South	1464	$\frac{1464}{15245} \times 384 = 39$
Total	**15,245**	**384**

Simple random sampling was then used to select the respective household heads from each location. All household heads in each location were assigned random numbers. Random number generation was then used to select the required number per each location. Gender sensitivity was considered by purposively targeting female headed households.

3.5. Data Collection Instruments

Three instruments were used in the data collection for the study these included household survey questionnaire, focused group discussion guide, and key informants interview schedules. The choice of three data collection instruments was informed by the need to triangulate data collection considering how sensitive findings from the study could be. In addition field observations were done practically by use of photographs. Consequently, collecting data from various sources using diverse instruments was ideal for more reliable data.

3.5.1. Household Questionnaire Survey

The questionnaire survey as an instrument for data collection was adopted in this particular study because of a number of the merits attributed to it. It is the most appropriate and cost effective method in surveying a large sample population as in this particular case whereby 363 households were surveyed. Its cost effectiveness in addressing large sample size is based on its standardized, highly structured design whereby the researcher asks, in specific order, questions of interest to him or her and this often includes planned probes to make sure that each question of each interviewee is asked in the same way (Ian, 1996; Lincoln & Guba, 2000).

The questionnaire survey instrument adopted in this particular study enabled a capture of quantitative data in the field survey. This is in agreement with Bailey (2007) who noted that the structured nature of questionnaires generates some data that is amenable to being transformed into quantitative data and analyzed using statistical techniques.

3.5.2. Focused Group Discussion (FGD)

Discussions were carried out with local people to get information about opportunities and innovations available to them. FGD were used to validate and triangulate the responses that come out form other sources.

3.5.3. Key Informants Interview

By means of purposive sampling, a number of institutions and key informants were identified based on their special involvement or engagement in the issues of rainfall variability, livelihoods and natural resources management. These institutions included the following, County Government officials from the Ministry of Agriculture and Livestock and JICA SHEP biz. Horticulture project. The key informants provided vital information about the rainfall variation patterns and opportunities and innovations available on farmers' resilience.

3.5.4. Field Observations

One crucial advantage of observation as a tool in data collection is that it enables phenomena and individual behavior to be directly observed, unlike in other instruments where behavior for instance is only inferred. (Bryman, 2012).

Field observations were carried out a number of times. Observations were carried out in the respondents' homes, farms and the surrounding environments and photographs taken. These observations were also utilized to triangulate the information gathered from the other sources.

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3.6. Data Analysis

Data was analyzed using descriptive statistics for all the quantitative data. Coded data was entered into the Statistical Package for Social Science (SPSS) Version.20 which was then used to screen data for missing values and response rate. Frequency distribution tables were used to summarize farmer views with regards to the construct under study. In the event that comparisons were to be made within households, such as activities undertaken and by whom, cross tabulations were conducted. This allowed construction of contingency tables that would compare perception cell wise.

Thematic analysis was used to explore farmer perceptions derived from focused group discussions as well as, capturing the views of agricultural institutional stake holders.

Results

To enhance coping strategies in the foreseeable future, farmers segmented opportunities and innovations available into three categories. Under financial innovations, farmers pointed out that they borrow from the bank to cope with rainfall variability; 32% of the farmers admitted to using this opportunity to overcome rainfall variability (see table 4.24). A significant proportion indicated that they borrow from family. Some farmers resorted to borrowing from money lenders (7.5%) and Shylocks (3.9%).

Most farmers tended to opt for social innovations to overcome stresses of rainfall variability; 70.7% indicated that they participate in saving groups; 60.4% pointed out that they participate in religious social groups/ circles. A substantial proportion (34.6%) indicated that they participate in funeral societies. Other farmers get engaged with reciprocal or exchange work groups (22.4%) or festive work groups (16.8%).

Other opportunities or innovations that are open to farmers are agricultural innovations. To cope with rainfall variability, farmers have had to exploit existing opportunities/innovations. A majority of the farmers (54.6%) have opted to trade in vegetable and fruit seedlings. 46.3% reported to use of improved seed varieties. Other major innovations/opportunities reported include: varying fertilizer usage (30.6%); using improved chicken from Kari or acquired from the neighbouring Uganda (22.5%) among others.

Table 1: Opportunities and Innovations open to Small Scale Farmers to Cope Better

Opportunities/Innovations	% of farmers
Financial innovations	
Borrowed from family	14.7
Borrowed from money lender	7.5
Borrowed from shylocks	3.9
Borrowed from bank	32.0
Social Innovations	
Participation in funeral societies	34.6
Participation in savings groups	70.7
Participation in religious social groups/circles	60.4
Reciprocal or exchange work group	22.4
Festive work groups	16.8
Agricultural Innovations	
Variation of fertilizer	30.6
Use of improved seeds	46.3
Improved poultry (kienyeji from Kari/Uganda)	22.5
Improved bee hives	11.3
Breeding goats/dairy cows	14.6
Use of Banana seedlings	33.8
Use of vegetable and fruit seedlings	54.6

Results from the focused group discussions with farmer groups further revealed that among innovation/opportunities that farmers expect are: change of approach like use the bottoms up approach style of management that would involve farmers in decision making' tap into the potential provided by lake Victoria and enhance irrigation; and enhanced research by professionals

Table 2: Focused Group Discussion Results on Opportunities/Innovations open to farmers

Question	Opportunity/innovation	Reason
What opportunities or innovations do you envisage to enhance coping with rainfall variability?	Bottoms up Management approach	Involves community in decision making Community suggests what works for them Empowering women
	Irrigation	Tap into surrounding waters of Lake Victoria and river Nzoia • Lay appropriate physical infrastructure to enable irrigation Avoiding reliance on rain fed agriculture
	Research	Professions conduct continuous research of possible solutions • Thorough soil analysis for innovating suitable crops Diversification into improved livestock and seeds Organize for farmers workshops and seminars Use of demonstration plots

Agricultural institutions and NGOs Perspective of Opportunities and Innovations available to small holder farmers coping with rainfall variability

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Question	Opportunity/innovation	Activities
What opportunities or innovations do you envisage to enhance coping with rainfall variability?	Agricultural innovations	• Drought tolerant cassava and sorghum • Conservation agriculture through adoption of cover crops to conserve moisture • Drip irrigation • Improvement of variety of goats and cattle Rice varieties that use less water Cage fishing in lake Victoria and backyard fish farming for households Empowering women through training for horticulture, green pepper and tomatoes Empowering women
	Opportunities	Green house nets for growing horticultural crops Quick maturing crops for example strawberry • Use of container gardens within households Provision of credit to individual farmers and cooperatives • Data driven agriculture • Use of Agrimaps Utilization of GIS and Remote sensing • Dissemination of information through social media platforms, radio and print media

Plate 1 and 2. Irrigation methods in use in the study area

Plate 3. Green house facility used for growing vegetables

Plate 4. Preparation of a water pan to be used during the dry season

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Plate 5.Cassava MH 95, improved variety and drought tolerant

Discussions

The objective of the study focused on identifying opportunities and innovations open to small scale farmers in Bunyala sub-county. Results revealed that farmers in the sub-county have opted to segment in the sub-county and innovations into three sub-sets.

Financial opportunities involve borrowing money mainly from banks but at times from money lenders and shylocks. This however poses challenges due to terms of repayment of borrowed money which often involve large interested rates. Borrowed money is used for subsistence and to a limited extent buying input. This shows that farmers are risk averse and may not be willing to invest further in poor conditions. Most financial institutions hardly give credit to farmers due to lack of collateral. The situation is made worse by farmer's perception of credit facilities and inability to repay especially considering the risk involved in investing in agricultural activities susceptible to rainfall variation leading to crop failure

Results further revealed that a majority of farmers have invested in social opportunities. They have set up investment groups which they, popularly refer to Mary go round aimed at raising the requisite money / credit for purchase of seeds and inputs. Others have formed religious social groups through which they hold prayer vigils hoping for upturn in opportunities. Reciprocal or exchange work groups is an innovative way of combining efforts to work in each other's farms as a group in order to cut on costs for farm labour. The local CBOs have been of much help to the community in improving their social economic status through an array of activities funded by the local NGOs. The NGOs support them with financial assistance, technical advice and supplying them with hybrid seed and livestock which are shared among the members. There is however need to promote capacity building and a bottom up approach to the management of the CBOs to make them more effective on their day to day activities.

The third set of activities taken is existing agricultural innovations. Farmers have opted to trade in vegetable and fruit seedlings; use improved cassava and sorghum that is drought tolerant. Use of cover crops to conserve soil moisture, keeping of improved dairy goats and cattle, others include cage fishing and backyard fish farming for households. Lack of credit and technical knowhow is cited as impediments to full realization of the potential in these technologies. They exist a ray of opportunities especially in the area od data driven agriculture and utilization of remote sensing and Geographical Information Systems.

The findings, particularly those reflecting on use of existing agricultural innovations such as genetic modifications, are consistent with study findings which show that innovative practices such as integrated crop-livestock management are proven opportunities for mitigating future effects of climate change (FAO, 2010; World Bank, 2011; 2012). Agroforestry need to be promoted as there is very little of the same in the sub county the target species should include *Grevillea robusta, Thevetia peruviana, Jacaranda mimosifolia, Leuceana leococephala, Leuceana Lukina*. Demonstrations plots should be promoted to motivate the farmers and demonstrate the realities of what is said on paper.

Findings pointing to use of genetically modified papaws, mango trees, sorghum and cassava and tomatoes is a clear indication of acceptance of technology as an opportunity to manage coping strategies. This in fact reflects the views of the World Bank report (2011) report which showed the need to embrace new technologies such as diversifying genetic traits of crops that resonate well with changing climatic patterns to help farmers edge against uncertainties in climates. Bunyala sub-county is one of areas that fall within the marginalized areas. It is therefore less suitable for arable farming as a result of land degradation (World Bank, 2012). It is therefore a welcome idea to see small scale farmers forming social groups to address rainfall variability. Through such groupings farmers can be able to maintain genetic diversity through use of different crop varieties. This will in essence insure them against future environmental change and help them meet social and economic needs.

Besides, insurance against future environmental changes, genetic diversity has potential to provide farmers with security against diseases (Zhn et al, 2000). Opportunities that focus on agricultural innovations are therefore crucial for continued farming in the region. Besides, the finding showing lack of access to electricity implies that while small scale farmers would like to innovate more in agriculture, they can't do so since most technologies depend on availability of electricity.

Information sharing through chiefs' barazas (local administration meetings), airing of programs with relevant information on agricultural production on local radio stations will go a long way in enhancing the resilience of the community to the effects of rainfall variations. Other avenues for information sharing include; FBO meetings (religious functions) which are open and accessible to the general public, meetings organized by the county Disaster Management Committees, Self Help Group meetings, NGO & CBO meetings, workshops and seminars, members of county assembly meetings. These channels are accessible to a small number of individuals expected to disseminate information to others.

Conclusions and Recommendations

Conclusion

As the world population increases at an alarming pace innovation in agriculture have become necessary to ensure the survival of humanity. Despite the efforts farmers are putting in place to cope with rainfall variability, several constraints stand in their way which requires intervention by utilizing existing agricultural opportunities and innovations. As farming technology is taking root, most farmers lack the knowledge and skills to engage in these technologies. The integration of technology into agriculture promises to revolutionize the industry, enhancing productivity, sustainability and resilience. Through their mobile phones farmers should be able to get reliable weather and market information in real time that can help with agricultural decision-making.

Recommendations

(i) Farmers should be sensitized on the need to engage in sustainable adaptation strategies such as

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planting drought tolerant crops and use of agricultural technology. The government should also provide agricultural extension services and distribute drought tolerant crops seeds before the seasonal rains starts.

(ii) Small-scale farmers' should focus on information gathering, enhance social networks to improve on their financial capability for example table banking. Institutions and local NGOs should work with the farmers by encouraging bottoms up approach to management of resources.

(iii) Local communities be empowered through trainings/skills programs (new technology for farming) to improve small-scale agricultural productivity (applying irrigation for food production to ensure food security and income generation can be encouraged);

(iv) Women, as important contributors to food production and income generation, should be empowered to access resources such as finances and land, and trained to develop decision-making skills. This can be attained through training for women social groups, and credit schemes to enhance small-scale businesses. Ensuring that awareness programs, such as the government's Women Enterprise Fund, should be promoted.

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