Farmer-Oriented Factors that Influence Adoption of Agroforestry Practices in Kenya: Experiences from Nambale District, Busia County

Peter Oino[1], Agnes Mugure[2]

[2]M.A, School of Arts and Social Sciences Egerton University,
P.O. BOX 536, Egerton
oino_peter@yahoo.com

[2]M.Phil. University of Eldoret, School of Environmental Studies
anyesore@yahoo.com

Abstract: ***This paper presents empirical evidence on farmer-oriented factors that influence adoption of agroforestry practices in Kenya. The paper argues that the adoption of agroforestry practices are influenced by many factors and one category of these factors are the characteristics and conditions of the farmer. These include gender, household headship, and household power relations, level of education, ownership of land and other property, occupation, marital status, and the size of the household. The authors observed that farmers would engage in agroforestry practices of various types and nature that fit their individual-household situations. The paper concludes that there are those factors like level of education, household decision-making, size of the household among others that positively enhance agroforestry practices, while others like lack of knowledge on agroforestry are constraints to the same. This notwithstanding, agroforestry has the potential to enhance household's livelihood opportunities that translates into high income, food security, creation of jobs, aesthetics, soil conservation, and environmental gains like fresh air, shade and source of fuel energy. It is our recommendation that development agencies should come up with interventional measures mainly targeting training and creation of awareness among farmers on the importance of agroforestry production and how farmers can optimize on the gains of agroforestry within their local situations. These would include establishment of model farms, site visits, demonstrations, and training of selected farmers to train the rest.***

Keywords: Farmer-oriented, Adoption, Agroforestry, Kenya

1. Introduction

Rural farmers worldwide in recent years, have faced colossal revolutionization and challenges including high population, high levels of poverty and food insecurity, climate change among others and thus, these farmers are gradually turning to agroforestry practices as alternative means of improving their situations. A study conducted in over 700 households in East Africa found that at least 50% of those households had begun planting trees ten years ago on their farms to diversify their productivity (Mercer, 2004). Agroforestry combines agriculture and forestry to generate integrated and sustainable land-use systems. Agroforestry takes advantage of the interactive benefits from combining trees and shrubs with crops and/or livestock production. The trees ameliorate the effects of climate change by helping to stabilize erosion, improving water and soil quality and providing yields of fruit, tea, coffee, oil, fodder and medicinal products in addition to their usual harvest (Mercer, 2004).

Farmers have different livelihood strategies in rural areas. Some sell their labor to other farmers as means to earn income or simply work for food on a daily basis. All this is done at the expense of them working on their farms. According to Ajayi et al. (2006), such farmers perpetually remain hungry. Labour is considered a limiting factor, not only to a farmer's decision to practice agroforestry (Ajayi et al., 2003), but also to the expansion of the practices (Keil et al., 2005). Ajayi et al. (2003) propose a study to provide detailed information on extent and exact nature of the relationship between sale of household labour, food security and farmers' decision to test improved tree fallow technology. According to Thangata (1996), the size of family labour force has a positive impact on adoption of agroforestry technology. Combining tree resources and food crops on the farm is labour demanding and families with low labor force may not be able to practice agroforestry. Household size is also an influencing factor to practice agroforestry. For instance, the higher the number of children in a household encourage tree planting because the need of tree products are higher and also labour is available.

Farmers' decisions to get involved with agroforestry include availability of labour supply (Ajayi et al., 2006). Earlier, Keil et al. (2005) also found that only 14% of the adopting farmers were willing to expand beyond the experiment size, citing limited land and labour as constraining factors to expansion. Additionally, the mental processes is one of the critical factors that influence adoption of new ideas, it is governed by a set of intervening variables such as individual needs, knowledge about the technology and individual perceptions about methods used to achieve those needs (Thangata & Alavalapati, 2003). This implies intrinsic and largely psychological stimuli available in the environment to motivate and persuade the individual into new ideas.

Farmers in East Africa have always faced high rainfall variability, both within and between seasons and their farming systems have not been static (Cooper and Coe,

2011). Owing to the fact that some farmers do not own land, they end up cultivating on borrowed or rented land. In this circumstance, long term investments on land would not be feasible for them. In communities where potential adopters cultivate such land, adoption of agroforestry is expected to be low. A study done in Haiti revealed that; formal title is not necessarily secure than informal arrangements; informal arrangements based on traditional social capital resources assure affordable and flexible access to land for most people; and perceived stability of access to land-via stability of personal and social relationships-is a more important determinant of technology adoption than mode of access (Smucker et al, 2000).

In Zambia, studies that were done in relation to adoption of agroforestry have looked at factors that influence farmers to initially establish an improved fallow, those that influence their decision to continue with the practice, and external factors that affect the decision to establish a fallow (Ajayi et al. (2003). Other studies indicate that high-income farmers may be less risk averse, have more access to information, have a lower discount rate and longer-term planning horizon, and have greater capacity to mobilize resources (Hoekstra, 1985; CIMMYT, 1993).

According to Blaug (1972), education improves one's ability to capitalize on opportunities. Blaug observed that the better educated are generally more flexible and more motivated, adapt themselves more easily to changing circumstances, benefit more from work experience and training, act with greater initiative in problem-solving situations, and, in short, are more productive than the less educated, even when their education has taught them no specific skills (Blaug, 1972). Similar findings (Masangano, 1996) revealed that education is positively associated with probability to adopt agroforestry technologies.

Later on, Blaug's ideas were supported by Thangata (1996) who observed that education level of household head is an important determinant of agroforestry adoption. They based their argument on the fact that formal and informal training has the potential to increase the rate of adoption by directly increasing awareness, imparting skills and knowledge of the new technology. A study done in Rondonia, Brazil, Campeche, and in Mexico indicated that exposure to information about agroforestry and the level of educational achievement all play significant roles in the decision to adopt agroforestry (Casey et al. 2000).

A study by Phiri et al. (2004) found an association between farmers' wealth status and the planting of improved fallows, with the planting being higher among farmers that were classified as wealthier than among the very poor households. Similar results were obtained by Keil et al. (2005) who found that adoption of improved fallows increased with wealth levels, starting with those described as fairly wealthy, and increased with well-off farmers. In addition they found a relationship between planting of improved fallows and the ownership of oxen. The ownership of oxen is an indicator of wealth status among rural communities. Farmers who own oxen are able to cultivate larger pieces of land within a short time or they would hire out oxen for extra resources to pay for labour or purchase other inputs. This in turn enables them to find time and resources to establish and manage improved fallows.

A study carried out in Kenya and Zambia showed that there was an association between wealth and use of improved fallows in Zambia and Kenya (Franzel, 1999). In both countries, community members in selected villages conducted a 'wealth ranking exercise' defining the different wealth groups and classifying households into the groups. In Zambia, improved fallows were planted by over half of the 'well off' farmers, however, only 22% of the 'poor' and 16% of the 'very poor'. In Kenya, there was a continuous decline in use from the second wealthiest group, with 58% planting improved fallows, to the poorest group, with 16% planting improved fallows.

According to Thangata (1996), gender is also important in influencing adoption of agroforestry practices. The probability of adoption was higher for men than women farmers in the highlands of south western Uganda (Ibid). This is perhaps due to the gender-equity issues in the introduction of technology to farmers, which include land tenure issues. The lower agroforestry adoption by women in Uganda was attributed to the fact that women lack secure land and tree tenure due to the largely patrilineal inheritance systems (Thangata 1996). Only old women, widows and female-headed households are often able to have access to more secure land rights.

Studies conducted in Malawi (Thangata & Alavalapati (2003)) and Kenya (Sanchez and Jama, 2002) showed that the average female-headed household did not adopt agroforestry technology compared to the male-headed farm household. It is important to address this inequality by introducing women farmers to other technologies that do not require secure long-term land and tree rights (Thangata &Alavalapati, 2003). Gladwin et al. (2002) reported that what motivated the women farmers to establish an improved fallow was the realization that their soil was depleted; fertilizer was expensive than alternative agroforestry practices and that their maize harvests could not meet their yearly consumption requirement.

According to Quisumbing et al. (1995), female farmers provide most of the labor for African food production, and many households are female-headed. The percentage of households that are female-headed ranged from < 10% in the study villages of southern Cameroon to 30% in Zambia to about 50% in western Kenya (Swinkels et al., 1997; Phiri et al., 1999). One would expect that females' use of improved fallows would be lower than males for two reasons. First, female household heads tend to have lower incomes than male household heads (Quisumbing et al., 1995). Thus, females would be less likely to test and adopt improved fallows due to lack of wealth, which dictates the resources one will have. Second, those choosing participants for the experiments and distributing planting material, usually extension staff, tend to be biased towards men. Thus, even if the technology itself is gender neutral, adaptive research and dissemination

mechanisms are often biased towards males (CIMMYT, 1993).

Although Keil et al. (2005) found land to be a limiting factor to increasing the size of portions grown to improved fallows, Styger and Fernandes (2006) found that in Central America, planted fallows even get adopted in areas where land is limited since farmers have to intensify their production and are forced to improve the only available pieces of land. Opio (2001) found that lack of security of tenure affects establishment of any agroforestry practices. Thus, lack of security of tenure was hampering female farmers from participating in the establishment of Sesbania sesban fallows in Katete District of Zambia. Equally, the synthesis by Ajayi et al. (2003) revealed that three studies had found farm size to have a positive association with farmers' decisions to plant and even continue with improved fallows although the latter finding is not associated with gender. Nearly all small-scale farmers in many African societies fall within the customary tenure system whereby families depend on acquiring land through ancestry accession. This implies that each family is restricted to sharing land that belongs to their forefathers. Therefore, as family size increases, their share of land gets smaller since they have to pass on portions to the younger generation.

Levels of poverty could also explain the low rates of adoption of agroforestry. According to Keil et al. (2005) farmers that were classified as poor and very poor had lower rates of adoption. Considering that farmers have to wait longer periods of time to see the benefits of agroforestry technologies means that a farmer would need to have other ways of survival during the establishment stage of improved fallows.

Age of the household heads is also an important factor in the adoption of agroforestry practices. For instance, in Western Uganda younger heads of households are more likely to adopt the agroforestry technology compared to the older farmers (Thangata, 1996). This is probably because the younger households are ready to take risk relative to older households and thus likely to adopt agroforestry technologies. This finding is consistent with previous studies (Adesina et al., 2001), which reported that adoption decreases with advanced age. Age has largely been found to be significant in deciding whether to continue with the technology or not (Ajayi et al., 2006). Older farmers were not willing to continue with the technology as compared to younger ones.

The critical premise in this paper is that adoption of new agroforestry practices is a rational decision making process that begins with the individual farmer as the main actor and then influenced by other factors within and beyond him/her. It is therefore, against this background that this paper discusses the farmer-oriented factors influencing adoption of agroforestry practices among the rural households in Kenya with a strong emphasis on household headship, level of education, household headship, occupation of the household members, land ownership and household decision making among others, and how these factors act as a motivation or impediments to the adoption of agroforestry practices.

2. Methodology

The research on which this paper is drawn was conducted in Nambale District, Busia County. Nambale District, one of the Districts in Western Province, is the indigenous home of the Bakhayo people. Busia County falls within Lake Victoria basin. The altitude varies from 1130m on the shores of Lake Victoria to 1375m. The County falls under latitude 0° and 0° 25° North and longitude 34° 54° East. It covers a total area of 1262 squire kilometres, with 137 squire kilometres under permanent water surface. The county has 924,200 hectares (924 sq. km) of agricultural land but only 40,000 hectares is under crop production. The high potential parts are found in Nambale, Matayos and Butula areas (Busia District development plan, 1997-2001:5).

The study was conducted through a descriptive survey research. A survey research according to Mugenda and Mugenda (1999) is a self-report study, which requires the collection of quantifiable information from the sample. A survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals to obtain data useful in evaluating present practices and improving basis for decisions. Survey design was suitable for data collection in order to gather qualitative and quantitative data from the target population. Simple random sampling technique was used to select a sample of 200 respondents' from Nambale District, Busia County and a structured questionnaire was administered to the sample. Key informant interviews, informal group discussions and participant observation were also employed. Data was analyzed both qualitatively and quantitatively.

3. Results and Discussions

Household Headship and Decision Making

During the study, the focus was on the households, but more specifically, the spouses that were available, and if all were around, the one that was ready to respond on behalf of the rest was given the chance. It was found that out of the 200 respondents. 187(93.5%) of them said that the husband was the household head, while 13(6.5%) said that it was the wife. It was observed that household headship was an important variable in relation to decision making process at the household level, control and allocation of resources, and the general management of the household's affairs, which include land use that was the interest of the study. This led to various cross tabulations. First, the study wanted to find out the relationship between household headship and land ownership in relation to decision making on the use of land as summarized in Table 1 below.

Table 1: Household headship and land ownership

Responses		Who owns the land		Total
		Husband	Wife	
Household Headship	Husband count	187	0	187
	% within household head	100.0 %	0%	100.0%
	Wife count	0	13	13
	% within household head	0%	100%	100.0%
Total	count	187	13	200
	%within household head	93.5%	6.5%	100.0%

NB: This is a multiple response and each variable is out of 200(100%)

From table 1 above, there is a relationship between the household headship and land ownership, with a chi square chi square p** value of 0.000 significant at 0.05 level and therefore a strong evidence that land ownership is related to household headship. It clearly shows that the household head is also the one who owns the land. These findings are consistent with the fact that Bakhayo community is a patrilineal and patrilocal community (Ochieng', 1990; Sorre, 2005). In a patrilineal and patrilocal society, land and other properties are inherited or transmitted from one generation to the next through the male line.

Land ownership rights by the male have put them in the forefront in decisions making about land use and by the fact that men are the household heads in the general management of household affairs. It was found that men made decisions on how land will be used and the use of the land products. However, in some cases, their wives were consulted for approval, but it did not change the decisions of men that were final. Lack of land ownership rights has also affected women as decision-makers and therefore, affects their decision to plant and own tree in that land. This affects tree tenure which could partly explain why women in a family where men are the household heads are less involved in tree planting. A study by Staudt, (1975) shows that women work on land but with little or no power in decision making on utilization of land resources.

4. Household Decision Making

Household headship is linked to decision-making, sharing of roles, labour, obligations and the position one holds. Men are the household heads and the decision makers as reported by 93.5% of the respondents. For instance, it was observed that men made a sole decision to hire labor towards cane farming, which required more cash, while women made a sole decision to hire labor for other crops apart from sugarcane. Most women belonged to farmer groups and therefore, had ready labor from the members of the groups who organize to provide labor to each group member at different days which was a relieve to most men who gave women autonomy to make decision on labor. In the case of deciding on cropping pattern, more than half of the sampled households indicated that they made shared decisions. The shared decision was because for those who planted sugarcane, it required much of the land and therefore, food crops which are essential for household food security was to be allocated a lesser portion (10%) according to the sugar company criteria. The remaining part of the land after cane farming is utilized as agreed by the partners.

Decision on the type of livestock was mainly shared. From the research, poultry belong to the women, while cattle, pig and goat belonged to the men. Animals acted as banks for paying school fees and also to supplement crop production. Choice of tree species, cash crop growing, location of trees and tree use which were of interest to this study were all dominated by males. All these require long-term decisions which are directly related to land ownership which is male dominated and are long term activities. This explains why women in a family where men are the household heads are less involved in tree planting having in mind that there is no policy on tree tenure in Kenya. This influences tree planting because it is the man to decide whether tree can be grown as a cash crop, and therefore size of land, type of trees with a purpose and also the use of the tree in the farm whether for soil conservation, income, firewood, building or for enhancing food security. It was also found that when it comes to decision making on what to plant, the wives would have to consult the husbands before they can know which crop to grow that season. For instance, one of the women said that:

…We do not have sugarcane on our farm. My husband is in town and yet he is the one to approve whether to plant it or not…he needs to see the situation on the ground to be convinced (Female, 41 years).

This means that women are generally reduced to making proposals whose decisions are to be ratified by men.

5. Level of Education for the Household Head

The level of formal education is an important variable in any given population. This is because it not only influences the demographic but also socio-economic characteristics of the population. The 200 respondents interviewed had varied levels of education. 117(58.5%) of them had reached primary level, 54 (27%) had reached secondary level, 16 (8%) had reached tertiary level, while 13 (6.5%) had not had formal education as presented in Table 2 below.

Table 2: Level of Education for the Household Head

Responses	*Frequency*	*Percent*
No formal education	19	9.5
Primary level	105	52.5
Secondary level	37	18.0
College level	36	18.5
University level	3	1.5
Total	200	100

From Table 2 above, most (62%) of the respondents had reached the primary level of education. This manifests a cohort of low level of education among the respondents, which translates into a semi-skilled labour force that is largely confined to the rural settings. This could explain the choice of agroforestry systems that do not require a lot of knowledge and skills (homestead, boundary, live fence) against alley cropping, improved fallow, woodlot method and other soil conservation agroforestry methods. Level of education could also explain why reading materials were the least used sources of information t by respondents. The study observed that education level of the household head was important in understanding and interpretation of information to make an informed decision on adoption of agroforestry practices.

When the level of education was cross-examined against number of trees, it was found that there is a strong relationship between education level of the household head and tree planting. This is represented with chi square p** value of 0.000 significant at 0.05 level and therefore, a strong evidence that number of trees is related to household head level of education. It was also found that majority of the farmers with <10 trees had low level of formal education, while those with > 30 trees had higher levels of formal education. Therefore, education of the household head influences decision to adopt agroforestry practices.

A study by Bradley, (1993) showed that men cleared fields, but women usually prepared soil, planted, weeded, and harvested. Most men planted trees, although women cared for them. This is because if women plant trees is like overtaking men's authority. This could mean that if men as the household heads are not educated, it negatively affects the level and nature of agroforestry practices on the farm. Level of education also helps one to interpret and understand extension information and at the same time think logically and critically about agroforestry information.

6. Occupation of the Sample Population

From the data collected, 8(4%) of the respondents were public/government employees, 3(1.5%) were working in parastatals, 140(70%) were subsistence farmers, 6(3%) were commercial farmers, 6(3%) were self-employed, while 37(18.5%) had a combination of these occupations.

Table 3: Occupational status of the sample population

Responses	*Frequency (n=200)*	*Percent*
Public sector	8	4.0
Private sector	3	1.5
Subsistence farming	140	70.0
Commercial farming	6	3.0
Self employed	6	3.0
No one stable occupation	37	18.5

NB: This is a multiple response and each variable is out of 200(100%)

From Table 3 above, it is true that most of the respondents were subsistence farmers, while only 5.5% of them were in formal employment at the private and government sectors. Subsistence farming in this community involves small-scale production of a variety of staple crops and or sugarcane on small portions within the same piece of land. However, due to the prevailing economic hardship in the area, some of the households are forced to sell part of their food harvest in order to get cash so as to meet other household needs. The few respondents that were employed by the government are mainly working at the divisional administration office, within the various departmental offices, as well as at the town council.

For those that participate in commercial farming, they mainly grow sugarcane, and most of them devote most of their land and income resources in sugarcane farming. By commercial farming, the study means that these are the farmers that have tried to go large-scale in sugarcane farming. They do not raise sugarcane on small plots like the majority of the farmers are doing in the division. They raise sugarcane both on their farms as well as on leased plots, with the main aim of getting cash profit from the crop. For instance, one of them had over 60 hectares of sugarcane that earn him over 1 million shillings in one harvest. This explains why the number of commercial farmers is small. Majority of the farmers in the division merge their plots in order to raise a block so as to qualify to be accepted to farm sugarcane which does not qualify them to fall under the operational definition of commercial farming for this study. The point is that for the majority of respondents, competition for land between sugarcane which does not allow tree planting and food crops where trees are believed to reduce land for crop farming, shade crops and destroy soil is a reality in the study area.

For those that are self-employed, some of them run small business stalls that sell consumer foods, while others do the bicycle (bodaboda) transport business. Because of the various factors that affect or limit each occupational category, most of the respondents venture into a number of occupations from time to time. For instance, one has a small business while at the same time, he is a subsistence farmer. The study also observed that most women do their farming work in the morning hours and then later in the day they go to the market places to sell foodstuff like milk, fish products, vegetables, and cereals among other goods in small quantities. Men on the other had do activities like charcoal burning and brick making, which involve tree products and more cash. The fact that many farmers(70%) practicing subsistence farming explains why tree planting is not yet incorporated in their farming because of fear of taking risks having in mind that trees take long to mature and the benefits take long to be realized for food security. Farmers may not be willing to wait for long to get the financial benefits of agroforestry and therefore, cannot be relied on for household food security.

7. Land Ownership

Land ownership is an important socio-economic characteristic. Land is an important factor of production alongside capital and labour. Land ownership does not only refer to one having the title deed of that land, as the legal bearer of the land but also having the powers to control the use and disposal of the land. Therefore, ownership of land has a bearing on ones productivity, especially in a farming community. From the data collected, all the respondents owned land. The study observed that even for the 13 widows, the land title deed had been transferred to their names. It was also discovered that even if the widows were to be inherited as it used to happen traditionally in this community, they would still own the land because the man inheriting them would be seen as an intruder, who also has his own land from where he came. However, for all the respondents, the land sizes were varied. 63 (31.5%) of the respondents had land size between 1-3 acres, 77 (38.5%) had between 4-7 acres, 31 (15.5%) had between 8-11acres, 19 (9.5) had over 11 acres, while 10 (5%) had land but did not know how many acres it was.

Table 4: Total land size for the respondents in the sample population

Responses	*Frequency (n=200)*	*Percent*
1-3	63	31.5
4-7	77	38.5
8-11	31	15.5
>11	19	9.5
Unspecified	10	5.0

From Table 4 above, majority of the farmers (70%) have less than 7 acres, which is relatively small given their household size and the fact that most of the respondents are subsistence farmers. The land tenure in this community is in the form of individual land holding. Men being the household heads are the ones that have the title deeds to the household's land, which makes them have both usufractory and disposal rights to it. This is in contravention with the traditional pre-colonial period when land in this community was characterized by communal tenure where the community owned land though worked on by individual families. The introduction of individualized land tenure in Kenya has ensured that landowners not simply secure utilization rights but also have freehold title. Thus, they would be able to pledge for loans, and transfer their land not only by inheritance but also by sale. The implication of individual land ownership and the specific control of land resources by men in this community meant that men make most of the important decisions when it comes to issues of how to use or dispose the household land. Out of informal discussions with some members of this community, the study found out that some of the men could even sell land without the knowledge of the wives or children.

The study observed that there is a strong relationship between size of land and the number of trees planted on the farm. The relationship is represented with a chi square P** value of 0.000 significant at 0.05 level and therefore a strong evidence that number of trees is related to size of land. For instance, those farmers with 1-3 acres of land had the majority (43%) with <10 trees on their farm, while those with >11 acres had the majority (26.3%) with > 30 trees on their farm. However, it was noted that those with >11 acres of land had (57.9%) with <10 trees on their farm. This could be explained by the fact that the main cash crop in the study area is sugarcane where cane farming policy spells out that no intercropping should be done in the cane farm and if any, only legumes. However gravellia trees are planted at the farm boundaries. The study found out that some farmers with 1-3 acres of land and have committed most of land to cane farming hence are limited to planting trees along the cane farm, which is a recent practice. Those with 4-7 acres of land can plant more trees because they will have some acres of land remaining after cane farming.

The minimum land a farmer can release for cane farming is 1 to 2 acres and therefore those with above 4 acres can give enough land for cane farming and the rest can be utilized for other farming practices including woodlots. Among those with >11 acres, 5 of them have >30 trees which they have established as woodlots in their farms. Therefore, size of land limits farmers to certain agroforestry practices that depicts the number of trees planted.

The study also found that there is a strong relationship between land size and the cropping pattern. The relationship is represented with a chi square p** value of 0.000 significant at 0.05 level and therefore a strong evidence that cropping pattern is related to size of land. It

was found that majority (52.4%) of those farmers with 1-3 acres of land practice monocropping and 41.3% practise both monocropping and intercropping, those with 4-7 acres practice less monocropping and more of monocropping and intercropping. Those with >11acres of land practice mono cropping. This could be explained by the fact that those with small pieces of land commit all their land to cane farming to maximize benefits or follow the sugarcane extension policy that farmers should leave part of their land for food crops and therefore, plant sugarcane and other crops which also allows tree planting. As the land size increase, farmers practice both monocropping and intercropping since they have enough land to plant cash crop and do other farming.

Despite the fact that farmers oriented factors influence the adoption of agroforestry, there are a number of factors that act as constraints to the practice of agroforestry and they include; poor crop yields, lack of clear information, limited land and inadequate quality seeds for planting. Besides, farmers argue that some tree species compete with crops for water and nutrients, causing crop yield reduction while others destroy soil making infertile. However, these constraints are outweighed by the gains accrued by farmers who engage in agroforestry farming

8. Conclusion and Recommendation

Farmer-oriented factors are critical in adoption agroforestry practices among rural farmers. It is our conclusion that each household adopts agroforestry practices at different levels depending on their situations. Thus, the farmer's conditions may be either a fertile ground for agroforestry farming or an obstacle for the same. We therefore, recommend that there is a need for the government and other development agencies to intervene by providing information and training to farmers who are ignorant of the benefits of engaging in agroforestry farming.

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