

## Farmers' Agricultural Information Sources in Houet Province, Burkina Faso.

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### Abstract

The study focused on the Agricultural information Sources of farmers in Houet Province, Bobo-Dioulasso, Burkina Faso. A survey study was applied as a methodology of study using a set of questionnaire to collect data in the study area. Descriptive analytical tools such as means percentages, frequencies and inferential tool such as correlation analysis were used for analyzing the collected data. Descriptive analyses revealed that Fellow farmers (mean=4.20; SD=0.7) were perceived by the respondents as the very important source of agricultural information while the printed material was perceived as not important (mean=1.29; SD=0.5). It can be concluded that from the study that there was a significant relationship ( $r=0.312$ ,  $p\leq 0.05$ ) between the level of education and the Printed materials as source of information while there was no significant difference between others socio-economic characteristics examined and information sources.

**Key words:** Agricultural extension, Information Sources, Utilization, Farmers, Houet Province, Burkina Faso.

### Introduction

One of the most important challenges that Burkina Faso remains confronted with at the beginning of this third millennium is to achieve an assuring and suitable level of food security for an ever-increasing population while preserving, in a sustainable way, its natural resources. However, the agriculture of the country, as in the remaining countries of the sub-Saharan region, has reached its limits such that the future agricultural productivity and rural income must derive from intensification, rather than area expansion and exploitation of additional natural resources (Oladele and Tekena, 2010). Accordingly, farmers need appropriate adoptive technologies and new ways of production to achieve that laudable objective. This need can be satisfied through agricultural extension which plays an important catalytic role in agricultural and rural development as it brings the farming community information and new technologies that can be adopted to improve production, incomes and standards of living. It provides a channel by which farmers' problems are identified for research and the agricultural policies are modified. According to Bown and Okedara (1981) agricultural extension education enables the farmer and his family to develop knowledge, skills and favorable attitudes which empower them, "to benefit from research and technology with the ultimate aim of raising their efficiency and achieving higher levels of living". Pertaining to the use of such knowledge, it could be said that, extension education provides the opportunity for farmers to learn and use the practical knowledge in solving the problems they face in their daily activities. The extension system also organizes farmers into functional groups in order to gain access to production resources such as credit, inputs, marketing services and information through credible and viable agricultural information sources. Access to the right information at the right time in the right format and from the right source may shift the balance between success and failure of the farmer. Hossain (1998) sustained that communication of agricultural information is a vital factor in the change process of the farming community.

The characteristics of farm information sources such as availability, credibility, interest, usefulness and socio-economic characteristics of the farmer/extension agent have interacting influences in the

frequency of use of information (Bel-Molokwu, 1997; Dulle, 200). Lewis (1998) identified some socio-economic characteristics of the farmer respondents and concluded that length of farming experience, age and farm business were positively and significantly related to innovation adoption process about latest agricultural knowledge and techniques. Information can be seen as data transformed into a usable item. According to Röling and Engel (1991) information is processed or interpreted data, data being the raw material for information and being described as facts or forms of sensory input such as observation, smell, etc. Leeuwis, (2004) sees information as knowledge expressed in tangible, that is, captured and stored in physical or electronic such as book, file, leaflet, newspaper, picture, sound and website. The most important common character about all these, is they should be communicable in a simply way to be appropriately and timely useful to the addressed audience.

Significant differences were found between demographic characteristics such as age, gender, education level, etc., and information sources used (Radhakrishna and Thomson, 1996) and those characteristics that at first appear to be attributes of sources in fact vary from receiver to receiver (Khan, 1991; Mundy, 1992; Okwu and Daudu, 2011).

Ogunwale and Laogan (1998) and Oladele (2005) revealed that village extension workers constituted the most used source of farm information and technologies while Wheeler (2007), noted that organic farmers have often complained about agricultural professionals' negative attitude about, and lack of knowledge of organic farming. Others sources used by farmers included fortnightly training meetings, radio agricultural programs, friends and neighbors, demonstration sites, and contact farmers. In sum, available information and the sources of agricultural information are seen as the critical factors affecting adoption rates of innovations among farmers. The above reviewed literature points out the importance of information sources and their rapport to the users characteristics. However, very little is known about socio-economic characteristics of farmers and their sources of agriculture information in the national agricultural in Burkina Faso justifying the undertaking of this study that determined the Agricultural Information Sources used by farmers in Houet Province of Burkina Faso.

## **Materials and Methods**

This study was carried out in the Houet Province of Burkina Faso. A multistage sampling technique was employed to select departments and villages used for the study. Simple random sampling technique was used to select 99 farmers as a study sample. A structured pretested and validated interview schedule was used to collect data from the respondents. Information was collected on the socio-economic characteristics of the respondents such as age, sex, number of years in farming experience, land tenure, level of education and on the various sources of agricultural information used by the farmers. Descriptive statistics such as means, frequencies and percentages were used for data analysis. The Spearman correlation was used to establish the existence of any relationship between information sources used and the socio-economic characteristics of farmers.

## **Results and Discussion**

### **Socio-economic Characteristics of the Farmers**

The result revealed that respondents were aged between 22 and 85 years with a mean age of 49 years. The remaining 48.50% of respondents were aged above 50 years indicating aged or ageing farmers (Table 1). Khan (1991) reported that age factor is very important in influencing behavior and experience of individuals but also, only elders were heads of families (Okwu and Daudu, 2011). Therefore with the increase in age it is expected that farmers will become mature to make

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rational decisions. Almost all the farmers interviewed (96%) were males. This is not surprising since males were heads of rural families in the study area. The few of females (4%) were female were in charge of family farming activities'. This is consistent with the study by Okwu and Daudu (2011) on Extension communication channels' usage and preference by farmers in Benue State of Nigeria that argued that the very large proportion of males is due to the fact that heads of the households were the ones selected for the study and were in most cases, males except in the case of windows.

Education is vital for development and is considered as an important factor in the adoption process because the extension agent's communication becomes easier with a person who is educated than one who is not educated. The results indicated that the majority (69.70%) have had no formal education and 26.30% were to primary school levels. Only few (4%) attended secondary school. This can lead to the limitation of farmers' access to various sources of communication from which relevant and current agricultural information can be acquired since education implies exposure to printed matter and refers to the process of increasing knowledge and wisdom. This is consistent to the study by Khan (1991) that supported that education has a significant effect on the adoption of improved farm practices by the farmers. The level of education influences farmers' level of participation in agricultural programs. Pertaining to Farming Experiences the result also indicated that Farmers had been farming between 7 and 59 years with a mean of 32.70 years of experience of farming.

Majority of the respondents (67.67%) had worked in farming between 10 and 40 years and 29.30% had more than 40 years of experience in farming. Only a few (3.03%) of farmers interviewed had less than 10 years of farming experience. The results revealed that most of the farmers have a high farming experience and this can lead to the positive influence on the adoption of innovations and therefore to the improvement of productivity and livelihood which is consistent to the study by Dankwa (2004) that indicated experienced farmers often adopt recommended extension practices to improve productivity and livelihood. Ani (1998) also found that farming experience of farmers, to a large extent, affects their managerial skills know-how and decision making of farmers. However Lewis (1998) reported that Agricultural Extension Agents (AEAs) often have difficulties in convincing and persuading very experienced farmers who are full of self-confidence, to adopt innovations.

A major concern is access to land, the primary factor of production. The result indicated that 45.50% of farmer respondents were landowners. Farmers normally owned land through inheritance or purchasing. More than half (53.50%) were owners and tenants. Tenancy of land plays an important role in adoption of technologies process. Farmers who are independent in making decisions may adopt latest technologies more easily or readily than the tenants who are not sure about their tenancy status. This is consistent with Mensah (2006) that pointed out that long-term security of land is crucial to agricultural growth.

### **Agricultural information Sources used by the Farmers**

The information sources are used by farmers to gather the needed agricultural information which have a significant influence on the adoption of innovations by farmers (Bel-Molokwu, 1997; Asiabaka and Owens, 2002).

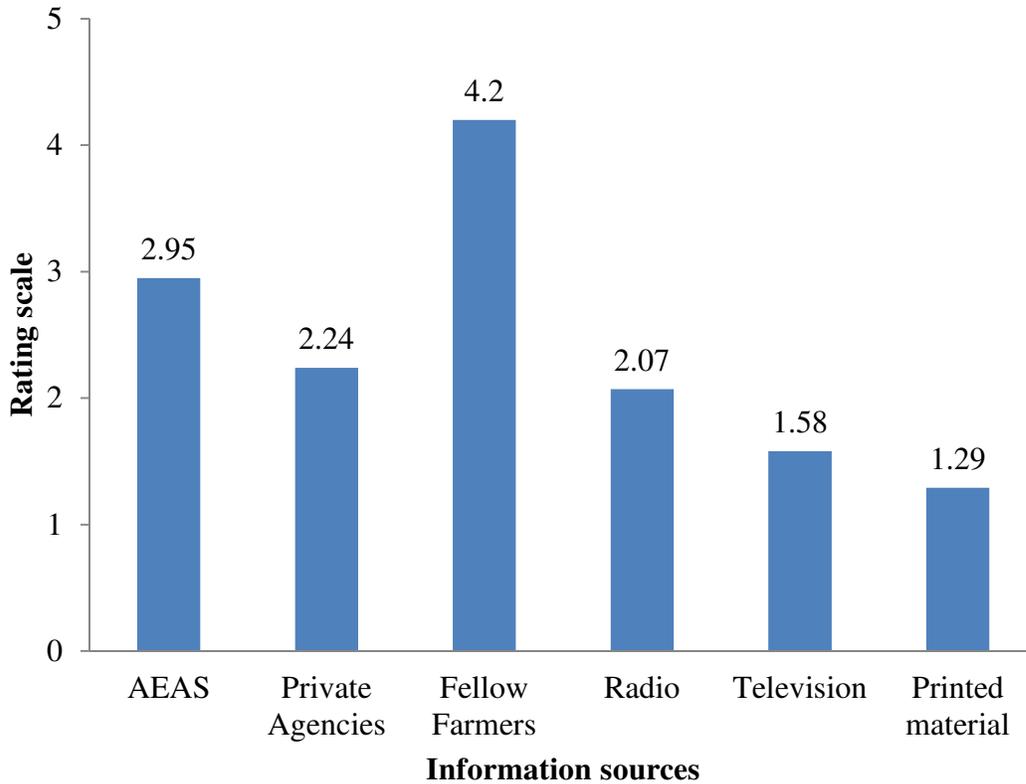
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**Table 1: Distribution of Farmers' Socio-economic Characteristics**

<b>Age range (in years)</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Cumulative Percentage</b>
Up to 30	7	7.07	7.07
31 - 40	19	19.19	26.26
41 - 50	25	25.25	51.52
51 - 60	34	34.34	85.86
Above 60	14	14.14	<b>100</b>
<b>Sex of Respondents</b>			
Female	4	4	4.00
Male	95	96	<b>100</b>
<b>Level of education</b>			
No formal Education	69	69.70	69.70
Primary	26	26.26	95.96
Secondary	4	4.04	<b>100</b>
<b>Years of experience</b>			
1 - 10	3	3.03	3.03
11 - 20	14	14.14	17.17
21 - 30	31	31.31	48.48
30 - 40	22	22.22	70.71
More than 40	29	29.29	<b>100</b>
<b>Tenancy of land</b>			
Owner	45	45.45	45.45
Tenant	1	1.01	46.46
Both Owner and tenant	53	53.54	<b>100</b>

Source: Survey data, 2011. N=99.

The results of the study revealed that Fellow farmers were perceived as the most important information source and the most frequently used with a mean of 4.20 and then was estimated to be important (Fig. 1). The findings are in agreement with the results reported by Bel-Molokwu (1997) and Asiabaka and Owens (2002) who found that the farmers ranked fellow farmers and friends as the most available and highly important source of information. The remaining sources of information such as AEs, private agencies, radio, television and printed materials were ranged in between mean values of 2.95 and 1.29. The printed materials were the least explored source with low mean value and this could be attributed to the high level of illiteracy of the respondents. The AEs and the private agencies as agricultural information sources with mean scores of 2.95 and 2.24, respectively, were perceived by farmers to be moderately important and more frequently used after fellow farmers. The reason could be that both AEs and private agencies are the most accessible change agents in the study area. The low mean values of Radio (mean=2.07) and Television (mean=1.50) indicate that Radio and Television were not that much used by farmers while seeking extension information. This could be because few radio broadcasts were dealing with extension issues. With regard to television, even if telecasts on extension programs did exist, the lack of electricity in most rural areas did not facilitate acquisition of television receivers if any farmer could afford to. From the findings of the study, it implies that fellow farmers were the major extension information source (Ofuoku, Emah and Itedjere, 2008).



**Fig. 1: Farmers' Extension Information Sources**

Means were computed from a scale of 1: Not Important, 2: Moderately Important, 3: Important, 4: Very Important, 5: Highly Important.

### **Relationship between some Farmers' Socio-economic Characteristics and Agricultural Information sources used**

Pertaining to the determination of whether relationship exist between some farmers' socio-economic characteristics and the importance of the sources of agricultural information used by farmers, the result indicated that of all the socio-economic characteristics examined only the level of education correlated significantly and positively with printed material as source of information using Spearman correlation  $r_s = .312^{**}$  implying that it is significant at the 0.01 level for a two-tailed prediction (Table 2). This is consistent with Radhakrishna and Thomson (1996) that argued that educational level is vital in accessing printed material in agricultural extension. The implication is that the more a farmer is educated, and the more the written sources of extension information are exploited. In addition, farmers' illiteracy delimited the ability to access extension information from certain sources particularly printed materials.

### **Conclusion and Recommendations**

The common agricultural information sources used by farmers in the Houet Province are fellow farmers, agricultural extension agents, private developmental agencies, radio, television and printed material. Among these available sources, the findings revealed that fellow farmers was the most used source followed by agricultural extension agents and private agencies, the printed material being the least used one. Additionally, pertaining to whether relationships exist between of all the farmers' socio-economic characteristics examined and the importance of the sources of

extension information, only the level of education of farmers correlated significantly and positively with printed material as agricultural information source. It can be recommended that more attention should be paid in agricultural extension system to increase the literacy level of farmers for better use of printed material as agricultural information source in the study area.

**Table 2: Correlation Coefficients of Farmers' Socio-economic Characteristics and Agricultural Information sources**

Sources of information	Age of Farmers	Level of education	Years of experience	Tenure of land
AEAs	0.055	0.069	-0.011	0.048
Private agencies	0.017	-0.062	0.085	-0.019
Fellow Farmers	-0.076	-0.036	-0.159	0.095
Radio	-0.140	0.173	-0.196	0.099
Television	0.130	0.140	0.168	0.035
Printed material	-0.012	0.312**	0.032	-0.016

\*\* Correlation is significant at the 0.01 level (2-tailed).

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