Measurement of Farmers' Attitude towards Complete Ownership of Farmland: Evidence from Eastern Ethiopia

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Abstract

The aim of this study was developing a scale with which to measure farmers' attitude towards complete ownership of farmland. Initially, the study identified 50 different statements based on literature and information from stakeholders and experts. Out of these statements, 30 items were selected, from which ultimately 12 consistent and reliable statements were identified for inclusion in five point Likert type scale. The 12 statements' scale was used to measure attitudes of 335 randomly selected sample farmers towards complete ownership of farmland. The study findings revealed that about 85% of the respondents preferred complete ownership of farmland, 9% disfavour it, and 6% of the respondents were undecided. Strict follow-up was made to data collection from the respondents, and the result enabled generating a tool to measure farmers' attitude.

Keywords: Farmers' Attitude; Likert Scale; Complete Ownership of Farmland; Eastern Ethiopia

1. Introduction

Attitude implies that a person is not neutral toward the referent psychological object. The person would be positively inclined or negatively disposed in some degree towards the referents (Burr 2000; Dolores *et al*. 2018; Pablo and Richard 2012). The response in this connection is a lasting one, as long as the attitude in question is operative. Attitude refers to a psychological individual's stands about objects, issues, persons, groups, or institutions (Dolores *et al.* 2018).

Attitude measurement is an approach of immense importance in a research that is concerned with behaviour studies. It is assumed that when people asked to provide information about their capital, income and output, in this case farmers, in most conditions, are reluctant to deliver accurate information. In contrast, when they are asked to provide information regarding costs, whether that is subsistence or production cost, they may tend to exaggerate information. Therefore, in order to prevent this problem of asymmetric information from occurring, it is advisable to apply attitudinal approach when researching farmers' socio-economic aspects. That means, attitude is an important concept that can be used to understand and predict people's hidden reaction to an object or change. Particularly, in developing countries, where subsistence farmers predominantly practice agriculture, extracting accurate information regarding farmers' socio-economic conditions would be imperative to formulate clearly informed development policy (Dolores and Sharon, 2017; Cooper and McGaugh, 1966).

This paper deals with land ownership rights issues and hence it is very important to highlight basic information about the land tenure system of the country. Following the fall of the Imperial government, land became the property of the state in Ethiopia. The military regime's March 1975 land reform proclamation resulted in nationalization of all rural lands (GOE 1975). The proclamation abolished private ownership of land through outlawing its sale, mortgaging, leasing or exchange. The proclamation, in addition, prohibited employment of tenants and farm labourers with exception to individual cases where, for example, old-age or illness makes this the only way to earn income. The EPRDF government, which was been in power since 1991 lifted all restrictions except land sale and mortgaging (EPRDF 1995; 2005). Regarding rural land ownership rights, the current government has maintained the socialist government's policies.

It appears that the EPRDF government has realized the existence of land tenure insecurity resulting from state ownership of rural lands. In this connection, the government has put in place a system of issuance of certificate of user rights as a means to help to reduce the degree of tenure insecurity (FDRE 1995; 2005). More precisely, the official government document (MOFED,2002) states that in order to protect the user rights of

farmers, their land holdings should be registered and they be provided with certificate of user rights. In this regard, a guarantee may be given to the effect that land will not be re-divided for a period ranging from 20 years to 30 years.

Some regional states have already started implementing this aspect of the land use policy and the policy is a step in the right direction (Berhanu *et.al.,* 2005; Deininger *et.al.,* 2007). This needs to be further strengthened, however, in regional states that have already started implementing the policy. Similarly, the feasibility of introducing the policy in the rest of the regions should be explored.

The issuance of certificate of user rights seems to be a half-hearted attempt of addressing the land tenure insecurity in that land is state-owned and it would not help address the problem of reduced sense of ownership resulting from farmers' expectations of future land redistribution (ActionAid Ethiopia, 2006; Belay, 2003; Samuel, 2006).

Therefore, having the above discussions in mind, this research was initiated to identify and construct a scale for studying farmers' attitude towards property rights. More specifically, the aim of the research was to construct an attitude scale and confirm the applicability of the constructed scale to assess the attitudes held by farmers towards complete ownership of farmland in the study area. Rural Entrepreneurship and Agribusiness

2. Methodology

2.1 Attitude Scale Construction and Items Analysis

The primary purpose of this section is to discuss the construction of a scale that measures the farmers' attitude towards full-fledged ownership of farmland and indicate the application of the resulting attitude scale that gives the total scores of individual farmers to quantify their attitude towards complete ownership of farmland, i.e., including selling and buying of farmland. Two important stages were followed in the scale development process: items or statements generation and item analysis.

2.1.1 Items generation

In 1932, Rensis Likert developed an appropriate and simple method of scale construction in his work "*A Technique for the Measurement of Attitudes*", known as summated ratings. Likert's construction employed a series of statements, from extremely favourable to extremely unfavourable, to which the subjects were required to respond. The statements were administered to a group of subjects who were required to respond to each item in terms of degrees of agreement or disagreement. The results were then tabulated and scored from 1 to 5, on a five-point continuum and totalled for each individual. This is the first and starting point in scale construction (Young, 1958; Dolores and Sharon, 2017; Burr, 2000; Page-Bucci, 2003; Boome and Gartin, 2007).

2.1.2 Item analysis

This is the second stage of Likert-type scale construction. Here, there are two possible techniques of item selection (item analysis). The first is following Edwards' (1969) procedure, which is:

$$t = \frac{\overline{X}_H - \overline{X}_L}{\sqrt{\frac{S_H^2}{n_H} + \frac{S_L^2}{n_L}}}$$

Where $\overline{X}_H$ = the mean score on a given statement for the high group

$\overline{X}_L$ = the mean score on the same statement for the low group

S_H^2 = the variance of the distribution of responses of the high group to the statement

S_L^2 = the variance of the distribution of responses of the low group to the statement

n_H = the number of subjects in the high group

n_L = the number of subjects in the low group

The high and low groups were constituted by 25 percent of the total sample subjects who obtained the highest scores and 25 percent of the total sample subjects who obtained the lowest scores, respectively. The high and low

groups were 'criterion groups' to evaluate the individual statements (Edwards, 1969).

Since equal number of subjects from the high group and low group were taken, the above formula can be further simplified as follows:

$$t = \frac{\overline{X}_H - \overline{X}_L}{\sqrt{\frac{\sum (X_H - \overline{X}_H)^2 + \sum (X_L - \overline{X}_L)^2}{n(n-1)}}}$$

Where $\sum (X_H - \overline{X}_H)^2 = \sum X_H^2 - \frac{(\sum X_H)^2}{n}$

and $\sum (X_L - \overline{X}_L)^2 = \sum X_L^2 - \frac{(\sum X_L)^2}{n}$

An important step in this procedure is to eliminate neutral statements so that each item perfectly discriminates between individuals with favourable and unfavourable attitudes. The value of 't' is a measure of the extent to which a given statement differentiates between the high and the low groups. As a crude and approximate rule of thumb, 't' value equal to or greater than 1.75 indicates that the average response of the high and low groups to a statement differs significantly. The required number of statements with high 't' value will constitute the attitude scale (Edwards, 1969).

The second alternative approach also gives the same result and follows similar procedure, but it minimizes complexity. Murphy and Likert (1937 cited in Edwards, 1969) were the first authors who introduced the simplified procedure. Instead of 't' calculation, the second technique considers the difference between the means of the high and low groups on the individual statements as a basis for selecting the items desired for the scale.

In this study, the procedures mentioned in Section 2.1.1 and the second alternative of item analysis (for its simplicity and convenience), were employed.

Based on review of literature and discussion with stakeholders (such as *kebele* and agricultural offices) and experts, 50 statements were constructed.

They were then filtered to a list of 30 items (of which half of them were worded to express positive attitude and the reminder to represent negative attitude), following the editing criteria suggested by Edwards (1969). It was assumed that the 30 statements uncover the implicit attitudes, which the farmers hold towards complete ownership of farmland. Finally, the statements were administered to 50 farmers purposively selected from Deder, Tullo and Chiro districts[i]. Each farmer responded to the 30 statements on five point Likert scale ranging from "strongly agree" to "strongly disagree".

Simple weightages (1 to 5) were assigned to the response categories based on the favourableness and unfavourableness of the items. For favourable (positive) statements, the 'strongly agree' response was given a weight of 5, the agree, undecided, disagree and strongly disagree were given values of 4, 3, 2 and 1, respectively. In the case of unfavourable (negative) statements, the reverse scoring was done. After that, the responses of the farmers were collated and the 30 statements were revisited. Three of the items were found to be redundant and, as a result, eliminated before passing to the second stage. Then, 27 statements were forwarded for item analysis.

Accordingly, all the respondents with their corresponding total score gained from 27 statements were listed in descending order. That is from the highest to the least score. Generally, 25% respondents from the highest scores and 25% from the lowest scores (totally 26) were selected. The middle 24 respondents, about 50%, were eliminated. Then, for each statement, the mean scores were calculated for high group as well as for low group (criterion groups). After this, the difference in mean between high and low group for each statement were calculated. Next to that, the statements were listed sequentially from the highest to the lowest mean difference. Based on the decision criterion of a cut-off point of 1.75, twelve statements consisting of both positive and negative statements were considered as scale for measuring farmers' attitude towards complete ownership of farmland.

2.2 Site Selection

Eastern Ethiopia was purposively selected for its proximity and suitability to adequately accomplish the research. This part of the country comprises East and West Hararghe Zones of the Oromia National Regional State, the Harari People National Regional State, and the Somali National Regional State and the Dire Dawa Administration Council.

The current research focuses first on assessing the compliance of the 12 statements of five-point Likert scale with respect to its consistency, reliability and applicability. Then, the attitude of peasants towards the existing land property rights is taken as a ground for the test. The scale was also evaluated in terms of farmers' attitude towards complete ownership of farmland in two groups. These are certified groups (households that received farmland use-right certificate) and uncertified groups. Towards this end, areas that satisfy this condition were taken into account (Figure 1).

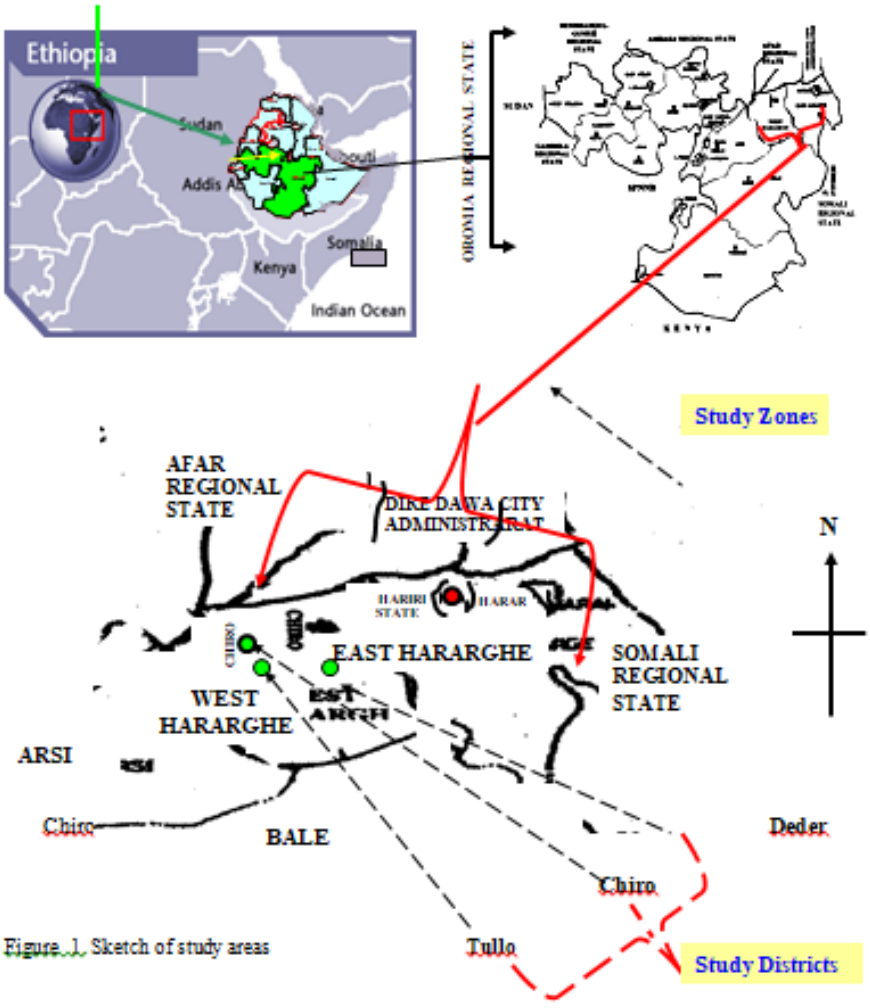

Figure 1. Sketch of study areas

The Deder, Tullo and Chiro districts were selected as the study areas for they are the only districts that have started user right certification. Deder, Tullo and Chiro are districts (*woredas*) found in the Oromia National Regional State of Ethiopia. Deder is part of East Hararghe zone bordering Tullo. It is bordered on the north by Doba, on the south by Mesela, on the east by East Hararghe Zone, and on the west by Chiro. Towns in the district include Debeso and Hirna (https://en.wikipedia.org/wiki/Tulo) It is found within the estimated latitude and longitude of 9°13′N 41°06′ECoordinates: 9°13′N 41°06′E and an altitude of 1763 meters above sea level. (Satellite Map of Tulo, https://latitude.to/articles-by-country/et/ethiopia/143883/tulo)

Chiro is also part of west Hararghe zone bordered on the south by Kuni, on the west by Guba Koricha, on the northwest by Mieso, on the north by Doba, on the northeast by Tulo, and on the east by the Galetu River which separates it from Mesela and east Hararghe. (https://latitude.to/articles-by-country/et/ethiopia/258082/chiro-zuria). It has an estimated latitude and longitude of 9°05′N 40°52′E and an altitude of 1826 meters above sea level. (https://en.wikipedia.org/wiki/Chiro)

2.3 Sample Size & Sampling design

The 12 items five point Likert scale was applied to assess farmers' attitudes towards complete ownership of farmland. For this purpose, *kebele*s[ii] that have at least started issuing land use-right certificate were listed in their respective *Woreda*s. From the list, eight *kebele*s (Lemen Weltaha, Cheffee Gurmu, Mito, Hundie Misioma, Hundie Lafto, Cheffee, Nejebas and Weltane) were then drawn randomly from the three *Woreda*s in proportion to the number of *kebeles* in each *Woreda*. After this, 130 certified households and 220 uncertified households were randomly selected in proportion to the size of households in each *kebele* with respect to certification status. In aggregate, 350 sample households were drawn and 15 of them were found to be absent in three calls or failed to appear for the survey. Ultimately, the data required for the study gathered from 335 (123 certified and 221 uncertified) sample respondents.

2.4 Data Collection Process

A structured interview was prepared to gather data regarding the attitudes which the farmers hold towards land ownership. After pre-test and necessary adjustments, the structured interview was conducted by five well-experienced, trained and skilled interviewers. To supplement the primary data, relevant secondary data about land ownership problems and practices were gathered from the Oromia Agricultural Bureau, Agricultural Offices of the two study Zones and the Rural Development and Agricultural Offices of the three study districts.

2.5 Profile of the Sample Respondents

The data was collected over 60 days in three rounds. Two zones (East and West Hararghe zones of the Oromia Regional State), three *Woreda*s and 96

villages of eight rural *Kebele*s were covered during data collection. The respondents were composed of 209 males and 26 females. Of the total female-headed household, 3 were divorced, 16 widowed, 6 had incapacitated husbands and 1 had a husband engaged in religious teaching.

The age of the household heads ranged from 19 to 80 years and the average age was 36 years old. The respondents' average experience in farming activity was 24 years with great disparity among household heads ranging from three to 60 years of experience. In terms of age, the majority of family members (53%) constituted less than 15 years of age followed by 31% with age between 15 and 35 years and 14% between 35 and 60 years old and the remaining 2% were older than 60 years.

The highest educational level of the respondents was grade 10 and Grade 2 was the average educational level among the respondents' families. About 14% of the respondents' family members were below school age, about 40% illiterates, and approximately 36% range from basic reading and writing to grade five. About 7% and 3% of the family members of the respondents had educational levels of 6-8 and 9-12 grades, respectively.

Inquiry into the farmland acquisition of the respondents revealed that inheritance dominates (83%) followed by acquisition from land-redistribution (6%) and, insignificantly, by purchase (1%).The average landholding of the respondents was 0.59. The maximum and minimum farmland sizes per household were 1.42 and 0.13 hectares, respectively. Regarding fertility of farmland, 33% of the sample farmers pointed out that their lands were fertile. About 56% of them rated their lands as moderately fertile while the remaining 11% of them considered their lands as infertile. The slope of respondents' farmland could be characterized as steep, moderate or flat. About 15% of the parcels were categorized to be flat while 49% and 36% of them were categorized to be moderate and steep slopes, respectively.

2.6 Analytical Methods

In this section, the attitude scale (12 statements presented in Table 1) concerning the farmers' attitudes towards complete ownership of farmland

and conventional statistical descriptive method of analysis was employed. Farmers' attitudes towards complete ownership of farmland may not always on the surface and open to ready inspection due to political, social and other factors. Farmers could show themselves in a variety of non-conscious, but very specific ways (McArthur, 1983). Therefore, the commonly used five point Likert scale was employed to analyse the extent to which the farmers have favourable or unfavourable attitudes toward a complete ownership of farmland. This scaling method has been preferred because of its easiness to construct, administer and as it is sufficient enough to yield similar results as does the more laboriously constructed scale (Burr, 2000; Cozby, 2001; Fakoya *et al*., 2007; Cummins and Gullone 2000; Hileyesus, 1995; Kerlinger, 1965; Zikmund, 2000).

Attitudinal scores with respect to the scale (all the 12 statements together) were first calculated. Then, the percentage and means were calculated to discuss the attitudes which farmers hold towards complete ownership of farmland.

2.7. Generation of Attitude scale

Following the procedure discussed earlier, a-12-statement 5-point Likert scale was developed (see Tables 1 and 2). The first 12 statements with the highest mean difference (≥ 1.75) were selected as suggested by Murphy and Likert (1937, cited in Edwards, 1969). The composites of positive and negative items were selected to maintain the consistency of the respondents in answering the statements. The total score obtained by summing up these 12 items reveals the farmers' attitudes towards complete ownership of farmland.

The attitude scale was further verified by conducting reliability test using Statistical Package for the Social Sciences (SPSS) version 12.0. The internal consistency for the 12 items (Cronbach's Alpha –which shows the scale reliability) was 0.94 and showed that this final version, 12 five-point Likert items towards farmers' attitude to complete the ownership of farmland was highly reliable. The content validity of the scale was also established using experts' rating on all the selected items, with a high relevancy coefficient of 0.80.

As observed in Table 1, among the 12 statements half are negatively worded to represent the expression of unfavourable attitude towards complete ownership of farmland whereas the remaining six are worded to accommodate favourable attitudes. This will help avoid the bias and improves reliability as anyone who answers 'agree' all the time will appear to answer consistently (Edwards, 1969).

Table 1. Definitions of abbreviations of the attitude scale items

Abbreviations	**Scale items (statements)**
STFAT (+)	Since the farmland is government property, state may take it at any time.
OALTEF (+)	If I am away for any off-farm activity, I am afraid that state will expropriate the farmland.
COHMF (+)	I believe that complete ownership will help to mortgage farmland, borrow money for investment, and improve peasant life.
IDDLTS (+)	I dislike the former military government's land tenure system because it was denying full-fledged farmland ownership.
FFOHOH (+)	I think full-fledged land ownership helps to overcome my extreme hardship such as drought famine and sever sickness.
IDNFTIHPL (+)	Land is state owned, hence I don't feel that I have power on it.
NNFOIURG (-)	There is no need of full-fledged ownership, if land use right certificate is given to me.
CFOINGD (-)	Complete ownership of farmland is not a big deal to me as long as I use the land
SEC (-)	I think full-fledged farmland ownership brings about social and economic crisis.
PLTLF (-)	If land is privatized and its transaction is allowed, then peasants may lose their farmlands for various reasons.
IDNWFO (-)	I do not want to hear about complete ownership of farmland, as it brings nothing new.
PEP (-)	I think there are people who are ready to buy farmland, evict the peasant and make him suffer more, if land is privatized.

3. Results and Discussions

3.1. Attitude scale groups

Table 2: Attitude scale items with mean differences between criterion groups

Statement Code	High Group Mean	Low Group Mean	Mean difference
PEP -	4.31	1.85	2.46
COHMF +	4.15	1.77	2.38
PLTLF -	3.23	1.00	2.23
CFOINGD -	3.54	1.46	2.08
IDDLTS +	3.15	1.08	2.07
OALTEF +	3.38	1.38	2.00
IDNWFO -	3.31	1.46	1.85
FFOHOH +	3.62	1.77	1.85
SEC -	3.38	1.54	1.84
STFAT +	2.92	1.15	1.77
NNFOIURG -	3.23	1.46	1.77
IDNFTIHPL +	3.89	2.14	1.75

3.2 Application of the Scale to Measure Farmers' Attitude

Each of the statements in the scale was given a weight of 1 to 5. The maximum weight was given for strongly agree in the case of positive statements and for strongly disagree in the case of negative statements. Thus, the minimum total score would be 12, if a respondent scores 1 point for each of the 12 statements while the maximum total score would be 60, if the respondent scores 5 for each of the 12 items. The mean scores were then categorized into three, favourable attitude being the mean scores of greater than three, a category representing undecided of mean scores of three, and unfavourable attitude category comprising mean scores of less than three. Moreover, the respondents were grouped into two (certified and uncertified) as mentioned in the methodology part of this paper.

In the following paragraphs, therefore, results of the research would be discussed. As shown in Table 3, 285 (about 85%) of the respondents favoured complete ownership while 20 (about 6%) of them remained undecided. The remaining 30 (about 9%) of them disagreed on complete ownership of farmland.

Table 3. Attitude of farmers towards complete ownership of farmland (N=335)

	Favourable (mean scores > 3)		Undecided (mean scores = 3)		Unfavourable (mean scores < 3)		Total	
Certification	No.	%	No.	%	No.	%	No.	%
Uncertified	189	56.42	11	3.28	12	3.58	212	63.28
Certified	96	28.66	9	2.69	18	5.37	123	36.72
Total	285	85.07	20	5.97	30	8.96	335	100.00

Among uncertified respondents 189, 11, and 12 of them have favourable, neutral and unfavourable attitudes to complete ownership of farmland, respectively. On the other hand, among the respondents who had received certification of user rights 96, 9, and 18 of them had favourable, neutral and unfavourable attitudes to complete ownership of farmland, respectively. Here, the proportion of favouring complete farmland ownership by those uncertified were by far higher than the certified one and that was because uncertified were more inclined towards favouring complete ownership of farmland than farmland use-right certificate as they were aware of certification of use right was not amount to complete farmland ownership. Table 4 below depicts the mean and standard deviations of the 12 scale statements. The mean of the statement COHMF, which was related to the use of full-fledged ownership as collateral is high (mean = 4.02) when compared to the other items and distant from the average (3).

This is followed by the statement IDNFTIHPL (mean = 3.98). This item was found to be a strong indicator and it revealed that there were farmers who are sceptical about the current tenure system. The item strongly

suggested that the farmers feel that they do not have power on their farmland.

Table 4. Mean & standard deviations of the attitude scale items (N=335)

	Mean	**Std. Deviation**
COHMF	4.02	1.368
FOINGD	3.08	1.075
IDDLTS	3.94	1.135
IDNWFO	3.37	1.105
OALTEF	3.93	1.098
PLTLF	3.70	1.017
STFAT	3.37	1.108
NNFOIURG	3.59	0.92
PEP	2.83	1.014
FFOHOH	3.76	0.853
SEC	2.55	0.846
IDNFTIHPL	3.98	1.083
FATSUCo	~~42.14~~	~~8.945~~

The third highest mean (3.94): "I dislike the military government's (Derg) land tenure system (IDDLTS)" also reflects farmers' positive attitude towards complete ownership of farmland as there is no significant difference between the former socialist and the current governments of Ethiopia regarding farmland ownership.

On the other hand, the average weight of SEC, PEP and CFOINGD were the lowest among the 12 statements and all were negative. The low average weights and the negative sign of these variables imply that farmers tend to support complete ownership of farmland. In general, the farmers' attitude towards complete ownership of farmland was positive.

The result can be further detailed by considering the 12 items. The statement: "Complete ownership helps mortgaging farmland" (COHMF) is

a factor related to borrowing of money for increasing production and productivity by availing the farmland as a collateral. Among the 335 households, the majority (187) rated "strongly agree" to the item while 69 of them rated "agree". Put together, these two levels of the scale constitute 76% of the respondents. Among the respondents, 45 and 28 disagreed and strongly disagreed with the statement, respectively. The remaining six persons abstained. This imply that favouring complete farmland ownership was for using their landholding as security and borrow credit from formal financial institutions.

In general, the response of sample farmers, by and large, was supporting full-fledged or complete farmland ownership, which was expected that response could be to the opposite had the scale was not introduced. This imply that the scale developed and the items identified were applicable to uncover secretes or sensitive issues with some adjustments depending on the issue to be investigated.

Table 6. Degree of responses of sample farmers to the scale items

	Agree & Strongly agree				Undecided		Disagree & St. disagree			
	Strongly agree	Agree	Total	%	Total	%	Disagree	Strongly disagree	Total	%
COHMF	187	69	256	76	6	2	45	28	73	22
CFOINGD	24	87	111	33	82	24	121	21	142	42
IDDLTS	124	138	262	78	15	4	46	12	58	17
IDNWCFO	24	67	91	27	32	10	186	26	212	63
OALTEF	116	147	263	79	15	4	48	9	57	17
PLTLF	18	38	56	17	15	4	218	46	264	79
STFAT	40	161	201	60	26	8	99	9	108	32
NNFOIURG	15	42	57	17	21	6	243	14	257	77
PEP	12	161	173	52	42	13	112	8	120	36
FFOHOH	34	241	275	82	9	3	48	3	51	15
SEC	5	213	218	65	46	14	70	1	71	21
IDNFTIHPL	133	117	250	75	37	11	42	6	48	14

4. Conclusions and Policy Implications

In general, farmers in developing countries are considered to be development actors in their respective places. Therefore, policy issues in general and agricultural policies in particular, should not neglect farmers and instead use them as sources of information. However, in most cases, farmers in these countries are susceptible to moral hazards. They usually tend to be reluctant to provide accurate information regarding output, income, farm size, livestock number, etc mainly because they fear that providing accurate information about their possessions would result in increase in land tax and loss of other benefits. In particular, inquiries related to land ownership which is politically tilted are sensitively considered in developing countries. In contrast, when farmers are asked to provide information concerning the costs they have incurred on their farming activities, they tend to report exaggerated figure. It is, therefore, crucial to obtain accurate information from such farmers with the help of standardized and indirect measurement tools (Belay, 2003). The standardized scale constructed in this study was meant to measure attitude indirectly and to make possible accurate access to information about farmers' agricultural input and output. Since attitude, is a crucial element in human behaviour, the scale developed in this connection would help government or any other stakeholders in designing behavioural interventions in the rural area.

Moreover, the scale is found to be reliable and consistent to be administered on sensitive issues like farmland ownership within the Ethiopian farmers. Further, the scale was administered and tested on a sample of 335 farmers in the study area in which the farmers' attitude levels to complete ownership of farmland were measured. The study strongly suggested that a large majority of farmers favours complete ownership of the plots they work on. This attitude measurement scale used in this study and the procedures followed to construct a variety of attitude scales can be adapted for use in wider areas with similar situations to analyse farmers' attitude towards farmland ownership.

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Note:

[i] With the change in government in 1991, the country was re-organized into 9 semi-autonomous ethnically-based regional states, one federal capital (Addis Ababa) and one special administrative division (Dire Dawa).

ii. kebele is the lowest and basic (1st) level of government administrative area. According to the administrative hierarchy of the Ethiopian Federal Democratic Republic, the regional states are divided into zones, *Woredas* or districts and *Kebeles* in the urban areas or peasant associations in rural areas (local administration units), in that order.