Applied Science and Innovative Research
ISSN 2474-4972 (Print) ISSN 2474-4980 (Online)
Vol. 3, No. 1, 2019
www.scholink.org/ojs/index.php/asir

Original Paper

Empirical Analysis on Local Farmers Perceptions towards Overseas Farmland Investments in Ethiopia

Getamesay Tefera[1] & Prof. Xinhai Lu[1*]

[1] Huazhong University of Science and Technology, Wuhan, China

[*] Prof. Lu Xinhua, Huazhong University of Science and Technology, Wuhan, China

Received: November 19, 2018 Accepted: December 9, 2018 Online Published: January 17, 2019

doi:10.22158/asir.v3n1p1 URL: http://dx.doi.org/10.22158/asir.v3n1p1

Abstract

In the past few decades there has been growing interest among multinational companies towards investment in overseas farmland. The whole process and result of such investments has become a hot topic of debate among scholars, media experts, social activists, and policy practitioners. The huge wave of overseas large scale farm land investment has generated conflicting views among scholars and developmental policy practitioners regarding its significance. Ethiopia has been in the spotlight in this regard as the government was avowed to attract investment in farmland and, in return, many foreign companies flocked to acquire large tracts of farmland, often dispossessing the local community. In this study we investigate the perceptions of local framers on overseas farmland investments in Ethiopia using a cross sectional survey data. We applied descriptive and inferential statistical analysis using SPSS. The findings indicate that out of the 440 participants covered by the survey 53.6 percent of the respondents were not happy with the activity of the investors' in their local area. The correlation results indicate that there is significant positive relationship between the age, family Size, and off farm employment of the respondents with that of their perception, whereas there is negative correlation between migration statuses, educational level and farm land size with that of their satisfaction level. Finally the logistic result indicates perception of local farmers has significant relationship with age (0.001) and of farm employment of the respondents (0.0000) with P value less than 1 percent. Besides Migration status (.036), family size (.044), educational level (.004), income level (.044) and farm land size (.046) has significant association with the perception of the participants with P value of less than 5 and 10 percent, whereas sex (.537) and marital status (.843) of the respondents have no significant relationship with their perception.

Keywords

FDI, Demographic and socioeconomic variables, farmers Perception and Ethiopia

1. Introduction

Following the widespread interest towards overseas farm land investment in the past few decades, there has been a growing debate among scholars, media experts, social activists and policy practitioners regarding the whole process and implementation status of such investments. Some of them considered such large scale acquisition of farmland for agricultural investment as no different from colonization and simply call it land grabbing rather than an investment. Others, like Lu (2017) and a study by World Bank (2010) have positive view of large scale overseas farmland investments as a way to, on the one hand, improve rural and agricultural development, as well as local living standards; and on the other, increase global food production, activate global food market and achieve free movement of global food if it is properly managed.

As a result in the last few decades there has been a growing research interest on the contribution of overseas farmland investment for the global economy in general and the host community and the private investors in particular. Many studies have examined the overall trends in and volume of overseas farmland investment as well as its contribution and impacts in most developing countries in a wide variety of setting. In this regard a study made by GRAIN (2008), Catula et al. (2009), and IFPRI (2009) indicate that the volume of transnational large scale land deal has steadily increased in volume from year to year such that total land transacted reached more than 20 million hectares since 20005. A report by World Bank (2010) raises the figure to 45 million hectares. The catch phrase 'global land grabbing' has been used to explain this phenomenal explosion of cross national commercial land transactions and land transfer deals that has prevailed in recent years around the large scale production, sale, and export of biofuel (Barros & Franco, 2010).

In this regard Sub -Saharan Africa is considered as the site of the most speculative major land deals. For instance Daewoo, one of the South Korean firms, had a land lease deal to cultivate corn and other crops on 1.3 million hectares of farmland in Madagascar, though finally the company failed to cultivate it. Similarly Sudan has leased more than one million hectares of land to Gulf States, Egypt and South Korea for 99 years (Cotula et al., 2009; Kugelman, 2010).

Ethiopia, which is the subject of this study, is among those African countries that have hosted a large number of overseas farm land investors in the last few years. According to a report by MoFED (2010) the country has shown an interest in overseas large scale farm land investment since the country has large land resources and thus is suitable for large scale land investment. For instance according to the office of the land investment report (EIA, 2011) the country has a total of 111 million hectares of irrigable land that is suitable for agricultural investment. Of course Ethiopian economy is fundamentally rural and relies heavily on the agricultural sector which contributes nearly half of the GDP, 85 percent of the export, and 85 percent of the total employment (CSA, 2010). Though the agricultural sector contributes for the lion share of the national economy, it is dominated by small scale farmers who earn their livelihood primarily from subsistence rain-fed agriculture with only limited use of modern inputs. Particularly, in the highlands of the country, where the majority of the country's

population live, the farm land holding size is very small and highly fragmented, rainfall patterns erratic and level of productivity is low. As a result, the country has always been suffering from persistent food shortage, particularly evident in times of famine. By capitalizing on the available huge land resource and taking into account the need to tackle the frequently food shortage that the country faces, the current government of Ethiopia has made a policy shift towards large scale overseas farmland investment (MoFED, 2005). Following this policy shift, in the past few decades, the country has seen a significant increase in the number of large scale overseas farm land investments and it has transferred more than a million hectares of land to foreign investors (EIA, 2010). A study made by Ali et al. (2017) confirms this in finding that large scale acquisition of farmland by foreign investors has shown increment both in trends and total volume, though its contribution towards employment creations and yield spillover effect to the local farmers in Africa in general and in Ethiopia in particular is limited.

However, since the inception of such large scale farmland transfer program in Ethiopia, activists, media pundit and other have expressed their criticisms of the phenomena in Ethiopia by stating that the whole process of land transfer is conducted by harassing and displacing the local poor farmers and in a way that unfairly favors the investors. In this regard Desalegn (2011) stated that the investment agreements take place in a style that unfairly favors the investors by ill-treating the local rural poor. In the same study Desalegn called the whole process as the land to the investor, by deviating from the motto "land to the tiller" which the present government espoused when it came to power by overthrowing the military regime.

There is, however, no quantitatively informed empirical study undertaken to understand the perception of local farmers regarding the whole exercise of the overseas farmland investment, though some studies were conducted using cases analyses method at small scale level.

Therefore in this study an attempt is made to investigate the attitude and perception of local farmers regarding overseas farmland investment in Ethiopia by taking a cross sectional survey data from a sample of 440 participants from five regions of Ethiopia where large number of overseas farmland investors have acquired large tracts of land. In doing so, this study utilizes various methodological procedures and data instrument utility in order to reach sound conclusion. And then statistical analysis follow and the results of the analysis are then discussed. This study concludes by recommending expanded and further study into the subject matter.

2. Methodology

In order to undertake this research, data on various socio-economic and demographic variables from household members aged eighteen years and above were collected. Thus in this study data were obtained from primary sources through field survey. The primary data were collected through household survey by mean of structured questionnaires and interviews with key informants. To conduct the survey first structured questionnaire was developed comprising different parts on the lines of demographic and socio-economic profile of the respondents and issues which relate with overseas farm

land investment. Then the questionnaire was duplicated and admistered to each of the selected households to be filled by the head of the household.

The data set for this study is cross sectional data types that are obtained from all regional states of Ethiopia where overseas farm land investors operate. A total of 440 local farmers were selected as participants for the research reported in this article.

Besides the survey questionnaire, three focus group discussions, each discussing with six to eight discussants, were made to triangulate the information obtained through questionnaire and key informant interview. In order to test stated study hypothesis and attain objectives of the research, selected method of data analysis was employed. Following the data collection in the field using various instruments, editing, data entry and data cleaning processes were carried out.

After selecting the study regions, the multi stage sampling technique was applied at regional and village level. Systematic and simple random sampling methods were applied to select the 440 participant farmers. In the systematic random sampling methods, the (n) units are selected by taking a unit at random from the first (K^{th}) unit and then every K^{th} unit thereafter distributed evenly over the listed population.

The survey of the household was conducted using a standardize questioners. The questioners was designed to capture information about demographic characteristics such as family size, age, gender, marital status and socioeconomic issues such as income level, educational status, employment nature and others.

Logistic Regression

The logistic regression model is one of the most common approaches used to study the discussion between two alternatives (Field, 2005). This model predicts the probability that an individual with certain socioeconomic and demographic determinants chooses one of the alternatives (Gujarati, 2003; Field, 2005). Thus in this analyses the logistic model can be used to estimate the satisfaction maximization where the farmer is assumed to have preference of benefit from activates of the overseas farmland investment that make them satisfied.

Therefore, in this research the perception of the local farmers from the benefit they incur out of the overseas farmland investments is predicted. In other words farmer's perception on the benefit in terms of employment opportunity, salary, technology transfer they have got from the overseas investment is identified.

Following Gujarati (2003) the logistic regression model form for binary choice problem could be introduced as it showed in the equation (1):

$$\ln \frac{P_i}{1-p_i} = \beta_0 + \sum_{j=1}^{k} \beta_i X_{ij} \tag{1}$$

Where; P_i = Probability of the event occurring β_0 = constant term, β_i = coefficient, X = Independent Variables. The coefficient demonstrates the effects of each explanatory variables on log of odds as

follows en Equation (2)

$$\ln \frac{P_i}{1-p_i} = \text{Log odds ratio} \quad (2)$$

The logistic model applies the maximum likelihood estimation after transforming the dependent in to a logit variable. The empirical mathematical model for the estimation is formulated as follows

$$P_i = prob(y_i = 1) = \frac{1}{1+e^{-(\beta_0+\beta_1 x_{1i}+.....\beta_k x_{ki})}} = \frac{e^{(\beta_0+\beta_1 x_{1i}+.....\beta_k x_{ki})}}{1+e^{(\beta_0+\beta_1 x_{1i}+.....\beta_k x_{ki})}} \quad (3)$$

Finally based on the empirical model presented in equation (3) the effect of explanatory variable on farmers perception by the farmland investment could be expressed through the following linear relationship

$$Fs = \beta_0 + \beta_{1Age} + \beta_{2sex} + \beta_{3Mari} + \beta_{4Migra} + \beta_{5Famsize} + \beta_{6Educ} + \beta_{7Incom} + \beta_{8FARMSIZ} + \beta_{9offEmploy} .... + \varepsilon \quad (4)$$

Where; Fs = Farmers Perception, Mari = Marital status, Migra = migration status, Famsize = Family Size, Educ = Educational Status, FARSIZ = Farmland size, Off Employ = Off-frame employment

3. Result

For this article a sample of 440 respondents were taken as participants by means of structured questionnaire. Data was collected from December 21/2017 to March 31/2018. The target of the research were those farmers households who have at least their own plot of land for farming activity in five regional states of Ethiopia wherein overseas investors have acquired large plot of farmland for commercial agricultural investment. The results for descriptive and inferential statistics are displayed here under in the form of percentile, frequency, correlations, and regression analysis.

Table 1. Distribution of Sample Respondents' Demographic and Socioeconomic Characteristics

Category	Farmers perception		Total
	Good	Bad	
Age			
18-30	68 (15.5%)	53 (12%)	121 (27.5%)
31-50	94 (21.4%)	95 (21.6%)	189 (43%)
>50	42 (9.5%)	88 (20%)	130 (29.5%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Sex			
Males	165 (37.5%)	205 (46.6%)	370 (84.1%)
Females	39 (8.9%)	31 (7%)	70 (15.9%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)

Marital Status			
Married	132 (30%)	183 (41.6%)	315 (71.6%)
Single	60 (13.7%)	27 (6.1%)	87 (19.8%)
Divorced/window	12 (2.7%)	26 (5.9%)	38 (8.6%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Migration Status			
Non-Migrant	120 (27.3%)	172 (39.1%)	292 (66.4%)
Migrant	84 (19.1%)	64 (14.5%)	148 (33.6%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Family Size			
1-3	94 (21.4%)	84 (19.1%)	158 (35.9%)
4-7	70 (15.9%)	89 (20.2%)	159 (36.1%)
>7	40 (9.1%)	63 (14.3%)	103 (23%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Educational Status			
Illiterate	135 (30.7%)	178 (40.5%)	313 (71.2%)
Non Formal Education	30 (6.8%)	37 (8.4%)	67 (15.2%)
Grade 1_12	39 (8.9%)	21 (4.7%)	60 (13.6%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Income Level			
<100 Dollar per annum	74 (16.8%)	108 (24.6%)	182 (41.4%)
100-500 Dollar per annum	12 (2.7%)	6 (1.4%)	18 (4.1%)
501-1000Dollar per annum	80 (18.2%)	74 (16.8%)	154 (35%)
>1000Dollar per annum	38 (8.7%)	48 (10.8%)	86 (19.5%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Farm land Size			
< 1 hector	80 (18.2%)	121 (27.5%)	201 (45.7%)
1-5 hectors	85 (19.3%)	74 (16.8%)	159 (36.1%)
5-10 hectors	39 (8.9%)	41 (9.3%)	80 (18.2%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)
Off Farm Employment			
Have	146 (33.2%)	96 (21.8%)	242 (55%)
Haven't	58 (13.2%)	140 (31.8%)	198 (45%)
Total	204 (46.4%)	236 (53.6%)	440 (100%)

As it is shown in the descriptive table above out of the 440 participants covered by the survey 53.6 percent had bad perception with the activity of the foreign investors in their local area, whereas 46.4 percent of the respondents had good perception with the investment of the overseas investors. The

perception of the local farmers was checked across their demographic and socio economic characteristics. Accordingly, the result for the perception of the respondents based on their age group indicates that for the age group 18-30, 15.5 percent had good perception while 12 percent of them had bad perception. Among the adult age group of the study participants 21.6 percent had bad perception, which is a bit higher than with the proportion of those who had good perception (21.4 percent). In the old age group the result shows that most of the respondents had bad perception (20 percent) as compared to the 9.5 percent who had good perception. From this we can generalize that the satisfaction of the participants decreases as their age increase. The perception of the target group's sample population analyzed in light of their marital and migration status indicates that the migrants had better perception (39.1 percent) than the non migrants (14.5 percent) while those participants who are married were more unsatisfied (41.6 percent) than those who are single (6.1 percent). The study participants who are educated had better good perception than the illiterate one (8.9 percent who had good perception in the first group as compared to the 4.7 percent had good perception in the latter). Further, those who have small family size had better perception (21.4 percent) than those having large family size (9.1 percent). Finally, the descriptive result for the perception of the respondents based on off farm employment opportunity and the farm land size they have for their endeavor indicate that those farmers that have less than one hectare of land were more had bad perception (27.5 percent) as compared with those who have large-sized farmland (With 19.3 and 8.9 percent good perception for those who have 1-5 and 5-10 hectares of land, respectively). Regarding perception of those who are off farm employed, the result show that those employed by the overseas investors had better perception (32.2 percent) than those who are not employed in the foreign investors' farms.

Table 2. Correlation Result among Demographic & Socioeconomic Variables and Perception of Local Farmers

	Age	Sex	Marital Status	Migration status	Family Size	Educational Level	Income level	Farm land size	Off Farm Employment	Perception
Age	1									
Sex	-.006	1								
Marital Status	-.066**	.610	1							
Migration Status	-.023	.539**	.279**	1						
Family Size	-.011	-.128**	-.018	-.114*	1					
Educational Level	-.090	.138**	.130**	.046	.002	1				
Income Level	-.082	-.024	-.026	.024	-.021	-.058	1			
Farm Land Size	-.107*	.048	.000	.035	-.050	-.018	.680**	1		
Off farm Activity	.013	-.074	-.066	-.064	.003	-.021	.402**	.331**	1	
Perception	.187**	-.088	-.067	-..141**	.107*	-.138**	-.058	-.094*	.306**	1

*Correlation is significant at the 0.05 level (2-tailed).

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

Note. Internal consistency reliabilities appear in parentheses along the diagonal. Age (1=18-30, 2=31-50, 3=>50); Sex (1=Males, 2=Females); Marital Status (1=Married, 2=Single, 3=Divorced/widowed); Migration Status (1=Non Migrant, 2=Migrant); Family Size (1=1-3, 2=4-7, 3=>7); Educational Level (1=Illiterate, 2=Non formal education, 3=Grade 1-12); Income level (1=<100 dollar, 2=100-500 dollar, 3 501-1000 dollar, 4=>1000 dollar); Farm land size (1=<one hectare, 2=1-5 hectares, 3=5-10 hectares); Off farm employment (1=have off farm employment, 2=Not have off farm employment); perception of local farmers (1=Good, 2=Bad).

As indicated above there is significant positive relationship between the age, family size, and off farm employment of the respondents with that of the perception of the local farmers about the farmland investments by overseas companies in their area. That is respondents from the young age and small sized family groups had better perception than the adult and old age group and those who have large family size. At the same time those local farmers who have off farm employment at the investors' investment have positive outlook for the overseas investors. There is negative correlation between migration status, educational level and farm land size with that of the perception of the local framers. This indicates that when the educational level and farm land size of the local farmers increase satisfaction rate also increases. Similarly migrant laborers had better perception than the indigenous communities around the investment area. During the survey we tried to investigate the attitude of the local people through FGD and in depth interview about the investments in farmland in their area by foreign investors. During the discussion those participants who have no off farm employment, the adult and old age group, the illiterate segment, and those who have small farm land size exhibited negative impression towards the commercial farm investments by stating that most of their land is transferred to the foreign investors by the Government dimming their future and they described the investments as unfair that give undue advantage to the investors. Besides, they added, the salary paid in off farm employments, the trickle down benefits they get from the investments and the compensation paid when their land was taken by the investors has not satisfied them. They say it has left them destitute, with means too inadequate to support their daily livelihood and that has led them to perceive the whole investment process as more of exploitation of their cheap labor and resources rather than helping them to share knowledge, technology, and generate, to some extent, modest income that improves their life.

On the other hand respondents from the young age group, those who have off farm employment, large family size, relatively better education, large farm land and the migrant laborers have positive outlook towards the agricultural investment of the foreign investors since it has benefited them in many ways though the net gain is small. According to the respondents who have large-sized family, the investments are useful as they have created more off farm employment opportunities to their family members. The local farmers who have small-sized farm land and the uneducated express that the investment have a

trickle down benefit by way of additional income generation through employment in off farm activities of the investors after completing activities in their own small farms. On the other hand those who have large-sized farm land said they are satisfied since the investments have helped them by creating market opportunity both for farm inputs and their agricultural produces, in addition to the access to technological assistance for their farming activities.

Below, the differential of local farmers' perception is examined using the logistic regression model. As it is known the logistic regression analysis tries to determine whether an event will or will not materialize, or, in the context of this study, whether a person is satisfied or not satisfied. In order to prepare the available data for the logistic regression analysis the data were coded as 1 for good perception and 0 to represent those who had bad perception Table 3 below shows the result of the logistic regression analysis for demographic and socio - economic determinates of satisfaction. Then the discussion on each result is followed.

Table 3. Logistic Regression Results on the Predictor Variables of Farmer's Satisfaction Level

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	Age	.471	.145	10.624	1	.001*	1.602
	Sex	.266	.431	.380	1	.537	1.304
	Mari	-.043	.218	.039	1	.843	.958
	Migra	-.550	.262	4.415	1	.036***	.577
	FamSiz	.282	.140	4.071	1	.044***	1.325
	EDUC	-.437	.152	8.305	1	.004**	.646
	Incom	-.267	.133	4.052	1	.044***	.766
	FARSIZ	-.408	.204	3.994	1	.046***	.665
	Off Employ	1.912	.265	51.995	1	.000*	6.766
	Constant	-1.599	.704	5.165	1	.023***	.202

a. Variable(s) entered on step 1: Age, Sex, Mari, Migra, FamSiz, EDUC, Incom, FARSIZ, Off Employ.

(*)(**)(***) Indicate that respective variable is significant at 1, 10 and 5% level.

B = represent the increase or the decrease in the log odds of occurrence of perception of local farmers

Exp (B) = indicates the logistic estimates in the odds of satisfaction for a unit change in the predictor variable when the effects of others is statistically controlled.

Table 3 above displays the regression result for the equation run to cross-check the relationship between the perception of local farmers regarding farmland investments by overseas companies across the different socio-economic and demographic characteristics. This include the response of the respondents within the different segments of age, sex, marital status, migration status, educational

profile, income level, farm land size, and off farm employment. Finally, the logistic regression analysis result indicates that perception of local farmers has significant relationship with age (0.001) and off farm employment of the respondents (0.0000) with P value less than 1 percent. Besides, the migrant laborer status (.036), family size (.044), educational level (.004), income level (.044) and farm land size (.046) have significant association with the perception of the participants, with P value of less than 5 and 10 percent, whereas sex (.537) and marital status (.843) of the respondents have no significant relationship with that of the perception respondents. The R-squared (0.201) result shows that a one unit change in the independent variable result a 20 percent change on the dependent variable. This implies that all variables jointly can influence the independent variable, that is, perception of the local community. Thus the model is sound and fit to run the regression.

4. Conclusion and Policy Recommendation

Obviously all form of investments become effective and efficient when the investments are carried out in a spirit of cooperation among the investors, who are the owner of the capital, the local community in which the investments undertaken, and the state administrative organs which are responsible to execute policy and legislation. Definitely, effective large scale farmland investments by overseas investors has a wide range of utility to the host country that has large unused arable land and the capital owner countries, the private inventors and the local community where the investments are to be implemented. It is with this understanding in mind that this study set out to assess the satisfaction level of the local community in Ethiopia in respect of farmland investments by foreign companies taking a cross sectional survey data from a sample of 440 local farmers in five regional states where there are large-scale investments in farm land.

As it is shown in the descriptive result out of the 440 participants covered by the survey 53.6 percent of the respondents were not satisfied with the activity of the investors' in their local area. Whereas the reset 46.4 percent satisfied with the investments as a result of the direct and indirect benefits they got from the investment.

The correlation result for the demographic and socioeconomic characteristics with that of the respondents' satisfaction in respect of the farmland investments by the foreign investors indicates that there is significant positive relationship between the age, family size, and off farm employment of the respondents with that of their perception towards the investment. This means there is better outlook for the investment among the young age group and those with small family size than the adult and old age group and those with large family size. At the same time those local farmers who have off farm employment at the investors' investments have positive outlook for the overseas investors. On the other hand there is negative correlation between migrant laborer status, educational level and farm land size with that of their satisfaction.

Finally, the logistic regression analysis result indicates that the perception of local farmers has significant relationship with age (0.001) and off farm employment of the respondents (0.0000), with P

value less than 1 percent. Besides migrant laborer status (.036), family size (.044), educational level (.004), income level (.044) and farm land size (.046) has significant association with the perception of the participants, with P value of less than 5 and 10 percent. Sex (.537) and marital status (.843) of the respondents have no significant relationship with that of their perception.

Inadequate compensation for the land taken from them,, low wage paid by the investors for off farm employment, shrinking farm land for the expanding family, and the destruction caused to communal land resources and forest ecology by the investors were the main reasons that were mentioned by local community members during the FGD and in depth interview as the main reasons for their dissatisfaction towards the farmland investments by the foreign investors.

Further, particularly the adult and the old age group and the indigenous community members in the investment area detest the investments by associating the whole phenomenon with colonization. They also mentioned that the current land policy of the country does not guaranty land tenure security, as land ownership belongs to the government as per the stipulations of the current constitution. Thus, according to them, they have no confidence that what is left off for them currently to till would not be given for those investors. in the future.

Thus, finally, we give the following recommendations to make the investment effective and beneficial for both the local people and the investors in a win-win approach.

1. As we understood during our field visit and documents analysis the government organs that are responsible direct the whole process of the investments have no policy document that will direct their regulatory actions, particularly in relation to overseas farmland investments. Thus there is a need to formulate a clearly described policy document on how to manage, evaluate, and settle disputes compromising all stakeholders of the investment.

2. There should be a base line awareness creation among the illiterate and marginalized local rural people about the contributions and significance of the investment before land is given to the investors.

3. There is a need to have a strong commitment agreement between the responsible government organ and the overseas investors to undertake environmentally friendly green investments in conformity with the code of ethics that was established by the World Bank.

4. It is better to give use right certificate to the local community members to create a sense of security of tenure in the land they lawfully possess.

5. Finally it is better to apply scientific method of cost benefit analysis in determining the compensation payable to farmers whose land is transferred to investors so as to minimize the dissatisfaction among the local community members. In addition to this, we recommend that it is better to ensure that the local community to derive direct and indirect benefits from the investments, using various mechanisms such as by developing the local infrastructure and running social services supported by the investors.

References

Ali, D. A., & Harris, K. (2016). *Large farm establishment, smallholder productivity, labor market participation and resilience: Evidence from Ethiopia*.

Ali, D. A., Deininger, K., & Harris, A. (2017). Using national statistics to increase transparency of large land acquisition: Evidence from Ethiopia. *World Development, 93*, 62-74. https://doi.org/10.1016/j.worlddev.2016.12.027

Azadi, H., & Barati, A. A. (2013). Agricultural land conversion drivers in Northeast Iran.

Borras, Jr., S. M., & Jennifer, Franco. (2010). *Towards a Broader View of the Politics of Global Land Grab. Rethinking Land Issues, Reframing Resistance*. Initiatives in Critical Agrarian Studies, Land Deals Politics Institute and Transnational Institute.

Borras, Jr., S. M., & Jennifer, Franco. (2012). Global land grabbing and trajectories of agrarian change: A preliminary analysis. *Journal of Agrarian Change, 12*(1). https://doi.org/10.1111/j.1471-0366.2011.00339.x

Borras, Jr., S. M., Hall, R., Scoones, I., White, B., & Wolford, W. (2011). Towards a better understanding of global land grabbing: An editorial introduction. *The Journal of Peasant Studies, 38*(2), 209-216.

Borras, Jr., S., & Franco, J. (2010). From threat to opportunity-problems with the idea of a code of conduct for land-grabbing. *Yale Hum. Rts. & Dev. LJ, 13*, 507.

Central Statistical Agency (CSA) of Ethiopia. (2007). Third census, 2007, Addis Ababa.

Claire, S. (2012). *Foreign Investment in Farm Land: D.B. Research center*.

Collier, P., & Dercon, S. (2014). *African Agriculture in 50 years: Smallholders in a Rapidly Changing world*. World Development.

Collier, P., & Dercon, S. (2014). African Agriculture in 50Years: Smallholders in a Rapidly Changing World? *World development, 63*, 92-101. https://doi.org/10.1016/j.worlddev.2013.10.001

Cotula, L. (2009). *Land grab or development opportunity?: Agricultural investment and international land deals in Africa*. Iied.

Cotula, L., & Vermeulen, S. (2009). *Deal or not Deal: The outlook for agricultural land investment in Africa*. International Affairs.

Cotula, L., Vermeulen, S., Leopord, R., & Keeley, J. (2009). *Land grab or development opportunity*. Agricultural investment and international land deal in Africa.

Cuffaro, N., & Hallam, D. (2011). *Land grabbing in developing countries; Foreign investors, Regulation code of conduct*.

De Schutter, O. (2011) .The green rush: The global race for farmland and the right of land users. *Harv.imt'LJ, 52*, 503.

Deininger, K., & Byerlee, D. (2011). *Rising global interest in farmland: Can it yield sustainable and equitable benefits*? World Bank Publications.

Deininger, K., & Xia, F. (2016). Quantifying spillover effects from large land-based investment: The

case of Mozambique. *World Development, 87,* 227-241. https://doi.org/10.1016/j.worlddev.2016.06.016

Deininger. (2011). Challenges posed by the new wave of farmland investment. *Journal of Peasant Studies*, *38*(2), 217-247.

FAO. (2011). *The high level panel of experts on food security and nutrition*. Land tenure and international investments in agriculture.

FDRE. (2010). *Council of Ministers Directive regarding the Administration of Agricultural Investment Land* [Unpublished]. Addis Ababa, March.

Getnet, Alemu. (2012). *Rural land Policy, Rural Transformation and recent trends in large-scale rural land acquisitions in Ethiopia*. Addis Ababa University.

GRAIN. (2008). *Seized: The 2008 Land Grab for Food and Financial Security*. Retrieved from http://www.grain.org

Holm, L., & Halkier, B. (2009). EU food safety policy: Localising contested governance. *European Societies*, *11*(4), 473. https://doi.org/10.1080/14616690802592589

Holmes, G. (2014). What is a land grab? Exploring green grabs, conservation, and private protected areas in southern Chile. *Journal of Peasant Studies*, *41*(4), 547-567. https://doi.org/10.1080/03066150.2014.919266

IFPRI. (2009). *"Land Grabbing" by Foreign Investors in Developing Countries: Risks and Opportunities*. J. von Braun and Ruth Meinzen-Dick. IFPRI Policy Brief 12, Washington, D.C.

Karlsson, J. (2014). Challenges and opportunities of foreign investment in developing country agriculture for sustainable development. *FAO Commodity and Trade Policy Research Working Papers*, *48*.

Leroy, A. M., & Lindsay, J. (2012). Agricultural Investment and Land: Some Reflections on Lessons Learned (and Still to Be Learned) from Experiences with Land Titling. *Unif. L. Rev.*, *17*.

Lipton, M. (2009). *Land reform in developing countries: Property right and property wrong*.

Lu, X. H., & Ke S. G. (2017). Research of China's food supply security based on farmland investment overseas. *China Population, Resources and Environment, 27*(5), 102-110.

Margulis, M. E., & Porter, T. (2013). Governing the global land grab: Multipolarity, ideas, and complexity in transnational governance. *Globalizations*, *10*(1), 65-86. https://doi.org/10.1080/14747731.2013.760930

Matondi, P. B., Havnevik, K., & Beyene, A. (2011). *Introduction: Biofules, food security & Land grabbing in Africa*.

Ministry of Agriculture and Rural Development (MOARD). (2008). *Agricultural Investment Potential of Ethiopia*. Addis Ababa, November. Retrieved from http://www.moard.gov.et

Ministry of Finance and Economic Development (MoFED). (2010). *Growth and Transformation Plan (GTP) 2010/11-2014/15*.

MoFED Government of the Federal Democratic Republic of Ethiopia; Ministry of Finance and

Economic Development, Economic Policy and Planning Department, Addis Ababa. (2003 April). Rural Development Policy and Strategies.

Palmer. (2010). *Would Cecil Rhodes have signed a Code of Conduct? Reflections on Global Land Grabbing and Land Rights in Africa, Past and Present*. Land Deal Politics Initiative (LDPI).

Pless, S., & Paul Torcellini PhD, P. E. (2009). Getting to net zero. *ASHRAE Journal*, *51*(9), 18.

Rahmato, D. (2011). *Land to investors: Large-scale land transfers in Ethiopia* (No. 1). African Books Collective.

Rudi, L. M., Azadi, H., Witlox, F., & Lebailly, P. (2014). Land rights as an engine of growth? An analysis of Cambodian land grabs in the context of development theory. *Land Use Policy*, *38*, 564-572. https://doi.org/10.1016/j.landusepol.2013.12.016

Rulli, M. C., & D'Odorico, P. (2013). The water footprint of land grabbing. *Geophysical Research Letters*, *40*(23), 6130-6135. https://doi.org/10.1002/2013GL058281

Schoneveld, G. C. (2014). The Geographic and sectoral patterns of large-scale farmland investments in sub-Saharan Africa. *Food Policy*, *48*, 34-50. https://doi.org/10.1016/j.foodpol.2014.03.007

Thaler, K. (2013). *Large Scale land acquisition and social conflict in Africa*. International conference, Yale University.

Torrez, F. (2011). La Via Campesina: Peasant-led agrarian reform and food sovereignty. *Development*, *54*(1), 49-54. https://doi.org/10.1057/dev.2010.96

World Bank. (2010). *Securing Land Tenure and Improving Livelihoods: Towards a set of Principles for Responsible Agro-investment*. Draft Paper for Discussion. Washington, D.C.

Zeleke, G. (2003). *Resource use and poverty in the Ethiopian highlands*.