PERCEPTION ON LAND REFORM IN REEF, NKOMAZI DISTRICT MPUMALANGA, SOUTH AFRICA

Article *in* Il Ponte · October 2020

DOI: 10.21506/j.ponte.2020.10.6

3 authors, including:

Isaac Agholor
University of Mpumalanga South Africa
25 PUBLICATIONS **68** CITATIONS

SEE PROFILE

Vol. 76 | No. 10/1 | Oct 2020
DOI: 10.21506/j.ponte.2020.10.6
PONTE Florence, Italy
International Journal of Sciences and Research

PERCEPTION ON LAND REFORM IN REEF, NKOMAZI DISTRICT MPUMALANGA, SOUTH AFRICA

Agholor, Azikiwe Isaac[1] & Gama Bongiwe[2]
[1, 2] School of Agriculture, Agricultural Extension and Rural Resource Management, Faculty of Agriculture and Natural Sciences, University of Mpumalanga. Private Bag X11283. Nelspruit, 1200. South Africa.
Correspondence author: Email: Isaac.agholor@ump.ac.za [1]
[2]bongiwegama61@gmail.com

ABSTRACT

The study examined smallholder farmers' perception of land reform in Reef, Nkomazi, South Africa. Data were collected from respondents using focus group discussion, structured and semi-structured questionnaires. Frequency, mean, percentage and ordinal logistics regression were used for data analysis. Results indicate that gender (*P*-value = 0.036, *β*=.862), age (*P-value* = .037, *β* = 0.56), education (*P*-value = .032, *β*= -.647) and farm experience (*P*-value = .002, *β* = 4.067) were significant variables influencing perception of respondents on land reform. The identified challenges of land reform beneficiaries were credit constraints (82%), insufficient skills (62%), inadequate market information (74%), and inadequate extension advisory services (65%). Land reform should be based on a clear identification of needs assessment, and guided by clear policy framework to address the identified challenges encountered by beneficiaries. Furthermore, post-settlement support should include effective stakeholder consensus during implementation process.

Keywords: Perception, land reform, redistribution, restitution, land tenure, post-settlement

INTRODUCTION

In South Africa, land is regarded as social and economic asset, as well as value system. Land reform entails changing access to land, patterns of landholding, access to natural resources, and support services (Advisory Panel on Land Reform and Agriculture South Africa [APLRA], 2019). The agrarian structure in South Africa is dualistic consisting of commercial and non-commercial sectors. In the beginning of 1990s, the legacy of apartheid government climaxed and was characterised by poverty, high levels of inequality (in terms of race, gender and class), social disorder, violence and serious political tension.

On the cusp of the changeover to democracy in 1994, it was unanimously agreed that the main legacy of the past injustices was the huge unequal distribution of land that arose from a three and a half century of land dispossession. Therefore, land reform was thus identified as a key programme to be adopted by the incoming democratic government (African National Congress, [ANC] 2017).

Land reform was seen by the ANC (the new government), as the driving force amongst the listed programmes of rural development to build the economy by generating large-scale

employment, increasing rural incomes and eliminating overcrowding. Thereafter, the policy of land reform was conceived and began to be implemented. These reform process was guided by the post 1994 land reform policy which was centred on the 'White Paper on Land Policy of 1997. The land reform was also to allow for the advancement of both fairness and effectiveness through a shared agrarian and industrial plan in which land was recognised as a boost and stimulus to agriculture and economic growth. The objectives of land reform in South Africa were to amend the past wrongs, allow reconciliation, support economic growth and reduce poverty (Aliber, 2013). The strategies adopted for land reform in South Africa were land restitution, redistribution and tenure system.

Land restitution involves the restoration of land to persons previously dispossessed of their land since 1913 by racially prejudiced laws. The dispossessed persons or communities were either given back their original land or comparable property (land) or receive an equivalent financial compensation. The "Restitution of Land Rights Acts 22 of 1994" was the legislation that governs the restitution programme (Department of Rural Development and Land Reform [DRDLR], 2015). However, two main structures were earmarked for the implementation of the restitution programme, these were: (i) The Commission for Restitution of Land Rights (CRLR); which resides under the auspices of land claim commissioner and five regional commissioners. Although the CRLR initially enjoyed independent mandate, later it fell under the control of Department of Land Affairs (DLA) for funding, research and management. The main duties of the commissioners was to educate the public about their rights to claim and receive claims submitted for processing; investigate the rationality and strength of claims and assist claimant to negotiate with present landowner. (ii) The land Claims Court: stands as an arbiter between the dispossessed and the current landowner on the grounds that no settlement is reached. The claim court is synonymous to High Court of the present administration, and accordingly appeals are entertained in the constitutional court or in the supreme court of appeal. In the view of the then land claim commissioner (DRDLR, 2014), restitution addressed the problem of poverty during the past decade. In addition, beneficiaries of restitution used the financial compensation for home improvement, boosting the local economy, education and restoration of dignity.

The Land Redistribution for Agricultural Development (LRAD) was aimed at providing financial redress to black South African citizens to access land mainly for agricultural purposes. The objectives of LRAD, include assisting with redistribution of agricultural land, reducing overcrowding in the former homelands, and creating opportunities for able-bodied men and women, and enhancing sustenance and household incomes for rural dwellers (DRDLR, 2013). There were also numerous programmes put in place to assist with the successful implementation of the LRAD and these include: Comprehensive Agricultural Support Programme (CASP); Reconstruction and Development Programme ; Integrated Sustainable Rural Development Strategy (ISRDS); Integrated Food Security and Nutrition Strategy (IFSS); Black Economic Empowerment Framework for Agriculture (AgriBEE); National Water Resource Strategy (NWRS); and the Agricultural Research Council (ARC) established to enhance information sharing and agricultural research activities (Hendrik and Olivier 2015).

The land restitution and redistribution programme gave birth to the land tenure reform programme aimed at providing legal security of tenure of local communities by giving back communal land to communities by allowing a unitary authorized structure of landholding. The Interim Protection of Informal Land Rights Act (IPILRA) and Extension of Security of Tenure

Act (ESTA) enacted in 1996 and 1997 gave protection to people or communities with untitled land rights and also provided grants to upgrade tenure security (DRDLR, 2013).

Notwithstanding the reform efforts of the past 25 years, the agrarian sector dominated by the smallholder farmers still remains divided in terms of resource allocation, with emergence of abject poverty along racial divide, gender and racial inequality (Advisory Panel on Land Reform and Agriculture [APLRA] South Africa, 2019). Although smallholder farmers and reform beneficiaries have been critical of the performance of land reform since 1994, some pro-government analyst claimed that smallholder farmers' subjective perception of impacts which include: improved livelihoods, political stability, reduced corruption and ineptitude, tenure security, decreased landlessness and alteration of rural economy were tenable (Diagnostic Report on Land Reform [DRLR] (2016).

The three elements of land reform (redistribution, restitution, and land tenure) has not solved the problems of land reform in South Africa, as most analyst argued that the reform programme was fraught with corruption and inefficiencies. The key constraints were the issue of land prices and post-settlement support to beneficiaries. Other constraints points to poor implementation and constant policy shift, nepotism and misalignment of budget. Numerous arguments has been mounting in favour or against land reform without reaching a good conclusion. Some argued that land rights and the mechanism for transferring land has been over-emphasized with narrow focus on livelihood of smallholder farmers, while others were of the view that rural livelihoods has totally been neglected. For some analyst, land reform is a key thrust of post-apartheid policy aimed at poverty reduction while others argued that land reform has done little to reduce poverty in rural areas because of the existing skewed nature of inequality in most rural areas. This argument has in-turn been challenged by opponents who provided evidence of the key role of smallholder-oriented land reform and small-scale agriculture in poverty alleviation.

Many studies have also attempted to determine the most important motivation behind perceptions (Hjelmar, 2012). Nevertheless, land reform perception has intrinsic and extrinsic variables that are highly correlated. The inadequate empirical study in South Africa on smallholders' farmers' perception on the diagnostic attributes of land reform indorse the need for this study. Furthermore, of critical importance is the inadequate discernment of the patterns attributable to impact of land reform to date, and lack of overall assessment of challenges as perceived by smallholder farmers remains a mirage. The general objective of the study is to evaluate smallholder farmers' divergent perspectives on land reform programme in the study area. The study examined smallholder farmers' perception on land reform; determine the relationship between household socio-economic characteristics and perception of land reform; and challenges faced by land reform beneficiaries in Reef, Nkomazi Local Municipality, Mpumalanga, South Africa.

METHODOLOGY

The study was conducted in Reef, Nkomazi Local Municipality Mpumalanga, South Africa. Realizing the sensitive nature of land issues in the area, and to allow for uniformity and accuracy of data collection, five enumerators were trained and the researchers supervised and took part in the data gathering. The secondary data collected included relevant information on land reform since post-apartheid regime in South Africa. The data were collected from 118 respondents using focus group discussion, structured and semi-structured questionnaires.

Frequency, mean, percentage and ordinal logistics regression were used for data analysis. The 5-point Likert scale (Very satisfied =5; Satisfied =4; Undecided = 3; Dissatisfied = 2; Very dissatisfied = 1) were used to determine satisfaction and dissatisfaction hierarchy of perception. However, the measured perception attributes were: land reform and household livelihood improvement; land reform restored political steadiness in governance; level of corruption and ineptitude associated with land reform; level of tenure security; speed and progress; and adjustment to rural economy and development. The ordinal logistic regression model was used to obtain the level of perception based on selected socio-economic characteristics of respondents. The Scientific Package for Social Science (SPSS) version 25, (2019) were the statistical package used.

The model

The study used the ordinal regression model also called Polytomous Universal Model (PLUM) which is an extension of generalized linear model. The ordinal regression model is appropriate for this study because it assist to determine whether a number of independent variables, such as age, gender (amongst others), predict the ordinal dependent variable, using ordered categories (Pandis, (2017).The ordinal regression predicts the level of an outcome or an assumption that is perceived as very satisfied, satisfied, dissatisfied, and very dissatisfied based on two or more independent variables (Agresti, and Kateri, 2017).

The model description

Let $\boldsymbol{Y_i}$ be an ordinal response with $\boldsymbol{q}$ categories (e.g. very satisfied =5; satisfied =4; undecided = 3; dissatisfied = 2; very dissatisfied = 1) for observation *i,*

Where $\boldsymbol{i=1}$ …n. the ordered model (Fernandez, *et.al* 2019) for the probability that Y_i takes the category K (K = 1 ….q) is characterised by the following log odds:

$$\log\left(\frac{P[Y_i = k|x_i]}{P[Y_i = 1|x_i]}\right) = a_k + \emptyset_k \beta' x_i, \quad i = 1, \ldots, n, \quad k = 2, \ldots, q \tag{1}$$

Where the addition of the monotone non-decreasing constraints

$$\mathbf{0 = \emptyset_1 \leq \emptyset_2 \leq \ldots\ldots\ldots\ldots \leq \emptyset_q = 1} \tag{2}$$

Certifies that the response Y_i, is ordinal (*Fullerton, et.al, 2016*). Therefore, the vector X_i is a set of predictor variables (covariates) for observation i which can be categorical or continuous. However, the $P \times 1$ vector of parameters β represents the effects of X_i on the log odds for the category K, relative to the baseline category of Y_i parameters. The model treats the first category as the baseline category, with $\{a_2 \ldots a_q\}$ as the intercepts, and $\{\emptyset_1, \emptyset_2 .., \emptyset_q\}$ are the parameters which can be explained as the 'scores' for the categories of the response variable Yi. Then, restrict $^a{}_1 = \emptyset_1 = 0$ and $\emptyset_q = 1$ to ascertain identification. With this, the response likelihood of probabilities are as follows:

$$\theta_{ik} = P[Y_i = k|x_i] = \frac{\exp(a_k + \emptyset_k \beta' x_i)}{\sum_{k=1}^{q} \exp(a_k + \emptyset_k \beta' x_i)} \quad for \quad k = 1, \ldots, q \tag{3}$$

This model was adopted for the study because it predicts the level of an outcome and considered to be more flexible than the logit model (Agresti, 2017; Daniel, *et.al*, 2016).

RESULTS AND DISCUSSION

Households' Perception Outcome on Land Reform

Table 2 shows the perception of respondents on land reform. The outcome of household perception on the variable-land reform and livelihood improvement shows that about 20% of respondents were very dissatisfied with the contribution made by land reform to livelihood. This result is in consonance with the report of APLRA (2019), found that majority of the vulnerable smallholder farmers in the community became a victim of exploitation, exclusion and poverty, notwithstanding the unsubstantiated benefits of land reform. About 35% were also dissatisfied while 14% of the respondents were satisfied with the impact of land reform on livelihood. Nevertheless, the respondents who agreed that land reform improved their livelihoods were only 10% and $\bar{\chi} = 1.44$ (figure 1). This result is corroborated by the study of Aliber, *et.al.* (2013) on the impact of land reform on livelihoods, who found that 46% of land reform projects were not utilized, and 3% of land reform beneficiaries were not actively involved in farming. Contrary to this findings, Chitonge and Ntsebeze (2012) found that acquisition of land has improved the socio-economic conditions of land reform beneficiaries and those who acquired land on their own in commercial areas. Although econometric analysis alone cannot indicate directly how land reform altered the livelihoods of households, it was reported from the focus group discussion that many beneficiaries established small farms and other related enterprises which augmented growth and impacted on their wellbeing.

On the restoration of political steadiness, the $\bar{\chi} = 1.33$ and the proportion of respondents that were very dissatisfied (16%), dissatisfied (27%), undecided (18%), satisfied (20%) and very satisfied (19%). The percentage dissatisfaction is expected because from the researchers' focus group discussion, it was gathered from respondents that local traditional leadership extended their tenure arbitrarily under the guise of assisting their subjects in the land reform process. Thus the extension of tenure, escalated the long existing disputes in the community (Hall and du Toit, 2014). Also result from the category, corruption and ineptitude associated with land reform, indicated that 20% of respondents were very dissatisfied with a value of $\bar{\chi}=1.62$. Whereas 30%, 22%, 17% and 12% were dissatisfied, undecided, satisfied and very satisfied correspondingly. Findings on corruption and ineptitude was substantiated by the 1997 White Paper on land reform, which found that the fractional breakdown of communal tenure system was as a result of corruption accompanied by abuse perpetuated by some traditional leaders and the lack of recognition and declining administrative support (DRLR 2016).

On the level of tenure security shows that 14 % were very dissatisfied, 39% dissatisfied, 22.0% undecided, 20% satisfied, and 5% very satisfied with $\bar{\chi}=1.28$. This finding agrees with (APLRA, 2019), found that tenure security was a mere process devoid of well-defined regulations. Land tenure security in the form of property right offer incentives to farmers to plan for future land utilization. Furthermore, when farmers are dissatisfied with tenure rights, it becomes impossible to stand against opposition during ownership disputes (FAO, 2012; Nkonya *et.al* 2012). Notwithstanding, tenure security allow access to farm credits and incentives in agricultural production. Information gathered from focus group discussion, lead credence to the fact that, land reform have done little to protect the property rights of respondents.

The speed and progress of land reform attributes recorded 33.9% (very dissatisfied), 33.9% (dissatisfied), 10.1% (undecided), and 15.3% (satisfied), 6.8% (very satisfied) with mean value of $\bar{\chi}$ =1.19. This result is anticipated, from the focus group discussion with households, found that the progress of land reform was very slow, and with delay in meeting the set target. The result is further substantiated by many studies and literature that the amount of land redistributed from 1994 to March 1999, for instance, amounted to only 650,000 ha which is less than 1% as compared to the target of transferring 30% of productive land by 2009 (Cousins, 2013). On the adjustment to rural economy category, the proportion of responses were 8% very dissatisfied, 23% dissatisfied, 25% undecided, 32% satisfied and 12% very satisfied with $\bar{\chi}$= 1.41. Although urbanisation increased as land reform failed to restore the full productive potentials of beneficiaries, indications are, that most household had succour but also recorded minimal increase in rural economy (DRDLR, 2014).

However, the undecided responses occurred in all category of variables attributes. This was expected because respondents were either afraid of disclosing information or fear of been victimized since land reform in the area remain a very sensitive matter. This general apathy and indifference surfaced even after the ethical consent were sort and ratified before the questionnaires were administered.

Table 1. Summary of household perception outcomes

Perception on land reform		N	Marginal %
	Very dissatisfied	23	19.5
	Dissatisfied	41	34.7
	Undecided	26	22.0
	Satisfied	16	13.6
	Very satisfied	12	10.2
		118	100
	Very dissatisfied	19	16.1
	Dissatisfied	32	27.1
	Undecided	21	17.8
	Satisfied	24	20.3
	Very satisfied	22	18.7
		118	100
	Very dissatisfied	23	19.5
	Dissatisfied	35	29.7
	Undecided	26	22.0
	Satisfied	20	16.9
	Very satisfied	14	11.9
		118	100
	Very dissatisfied	16	13.6
	Dissatisfied	46	39.0
	Undecided	26	22.0
	Satisfied	24	20.3
	Dissatisfied	40	33.9
	Undecided	12	10.1
	Satisfied	18	15.3
	Very satisfied	8	6.8
		118	100
	Very dissatisfied	24	20.3
	Dissatisfied	54	45.8
	Undecided	27	22.9

Satisfied	6	5.1
Very satisfied	7	5.9
	118	100
Very dissatisfied	9	7.6
Dissatisfied	27	22.9
Undecided	30	25.4
Satisfied	38	32.2
Very satisfied	14	11.9
	118	100

Graphic trend of respondents' perception of land reform attributes

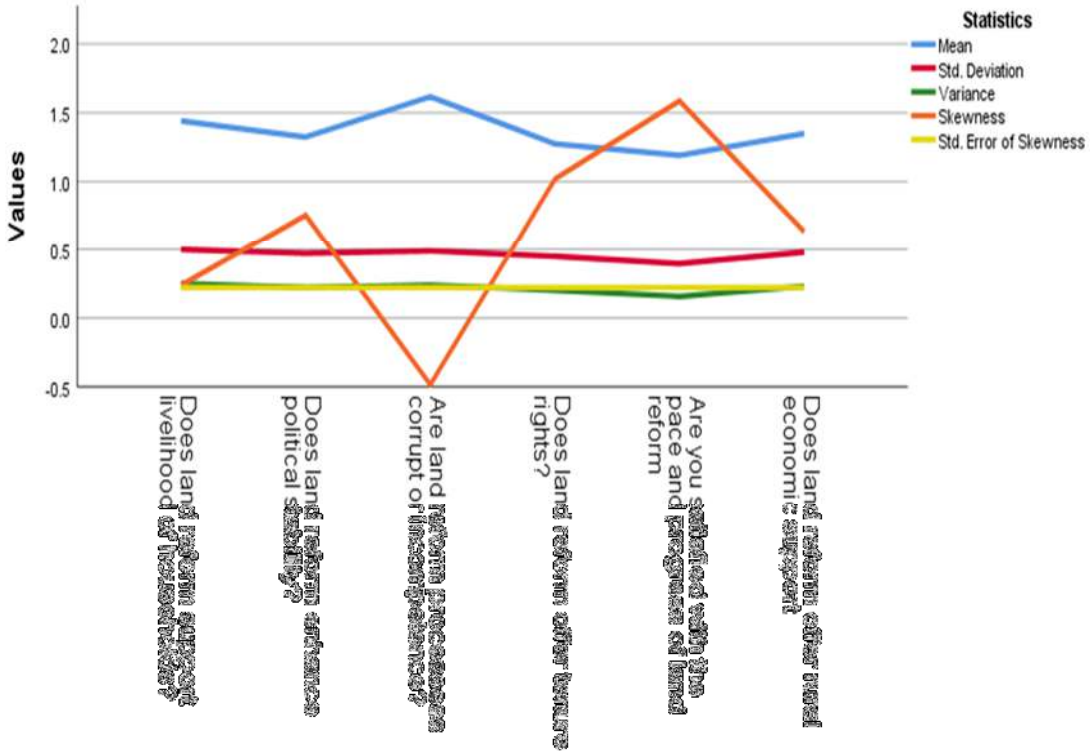

Figure 1. Graphic trend of perception attributes of land reform

Relationship between the household characteristics and land reform

Table 2, shows the result of the relationship between independent variables and the ordered dependent variables. The Goodness-of-Fit test was computed and the result show that the model was well fit and the Pseudo R-square (Cox and Snell = 0.218, Nagelkerke = 0.229, and McFadden = 0.081) indicates that data perform equally well. In the model, six covariates were included as determinants of perception namely; Gender (GEDR), age (AGE), education (EDUC), off-farm employment (EMPL), farm size (FAMSIZ), and farm experience (FEXP).

Gender (GEDR) of respondents with a coefficient (β=.862, *P*-value = 0.036) was significant and positively influence perception of land reform. The implication is that for very unit increase in the number of respondents (male or female), there is 0.86 times increases along the hierarchy (very dissatisfied, dissatisfied, undecided, satisfied and very satisfied) of perception, given that all other variables are held constant. The underlying assumptions of ordered logistics regression used, is that the relationship between the ordered dependent variables are the same. Therefore, the expectation here, is that any unit increase in number of respondents translates into increases in the level or hierarchy of perception from satisfaction to dissatisfaction category.

The coefficient age (AGE), was significant (*P-value* = .037, β = 0.56) and positively influence perception of land reform. The result suggest that an increase in age, correspondingly increases the odds of perception along the hierarchy by 0.34 times provided that all other variables are held constant. As respondents gets older, decision making becomes pre-emptive and less aversive. This result contradicts the study of Edeoghon (2015) who found that increase in age, decreases involvement in vegetable cultivation. The variable education (EDUC) was significant (*P*-value = .032 and β= -.647) but negatively influence perception of land reform. The implication is that an increase or additional training of respondents, decreases the log odds of perception by -1.240 times. The odds of being 'very satisfied, satisfied, undecided, dissatisfied and very dissatisfied' decreases by -1.240 times when all other variables are held constant. This result is consistent with the study of Nouman, *et.al*, (2013), found that illiterate farmers are more likely to obtain credits for farming compared to educated farmers. On the contrary, the study by Adzenga, *et.al* (2019) found that education influence positive perception of innovations. This is particularly so, because educated farmers are more inclined to knowledge acquisition because of their ability to access information pertaining to decision making.

The coefficient farm experience (FEXP) was significant (*P*-value = .002, β = 4.067) and positively influence perception of land reform. The implication of this result, is that as the number of years a respondent remains in farming, the odds of perception along the hierarchy increases congruently provided that all other variables remain the same. This finding is substantiated by the study of Ighoro, *et.al,* (2019) who also found that farmers who have more years of experience in farming were motivated as organic vegetable farmers. This notwithstanding, some study also revealed that experienced farmers are generally adamant to accept innovations (Uddin *et al*., 2014; Ndamani *et.al* 2015).

Table 3. Relationship between the household characteristics and land reform

	Estimate (β)	Std. Error	Wald	df	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
[IMPL = 1]	3.059	1.595	3.679	1	.055	-.067	6.184
[POLS = 2]	-2.939	2.225	1.745	1	.187	-7.299	1.421

	[COINEP = 3]	-7.560	2.340	10.435	1	.001	-12.147	-2.973
	[TESEC = 4]	-7.186	2.334	9.481	1	.002	-11.760	-2.612
	[SLPC = 5]	2.562	2.410	1.130	1	.288	-2.161	7.284
	[LANL = 6]	-6.779	2.334	8.439	1	.004	-11.353	-2.205
	[AREC = 7]	11.509	2.582	19.873	1	.000	6.449	16.569
	GEDR	.862*	.410	4.417	1	.036	.058	1.665
	AGE	.556*	.266	4.361	1	.037	.034	1.077
	EDUC	-.647*	.302	4.584	1	.032	-1.240	-.055
	EMPL	-.069	.311	.049	1	.825	-.677	.540
	FAMSIZ	-.231	.138	2.812	1	.094	-.501	.039
	FEXP	4.067*	1.313	9.592	1	.002	1.493	6.640

*Link function: Logit.
*a. This parameter is set to zero because it is redundant.

Challenges of land reform beneficiaries

The challenges faced by land reform beneficiaries are shown in table 4.

Credits constraints

Finding reveals that 82% of the respondents posited that inadequate access to credits is a major post settlement constraints to land reform beneficiaries. Financing farm operations are of particular concern for farmers in the area. Inadequate access to financial services, as identified by beneficiaries stems from inaccessibility of farm grant and subsidies, start-up capital, farm inputs, such as chemicals, fertilizers and seedlings. However, sources earmarked by government for credit assistance which include grant, loan from the State, and loan funding from accredited lending financial institutions (DRLR, South Africa, 2016), remain elusive to beneficiaries. Nevertheless, even when beneficiaries have access to finance, the cost of borrowing is exorbitant and discouraging. Besides, whether the assistance is given by the bank or government, a particular beneficiary pays the price of borrowing, thus decreasing the net farm income.

Table 4. Challenges of land reform beneficiaries

Main Challenges of land reform beneficiaries	% of respondents
Credit constraints	82.22
Insufficient skills	62.19
Inadequate market information	74.10
Inadequate agricultural extension services	65.12

Inadequate skills

Capacity building and skill development of land reform beneficiaries assist for increase farm productivity. The result indicated that about 62% of beneficiaries interviewed asserted that inadequate skill were a major challenge. Nevertheless, Binswager-Mkhize (2014) argued that Recapitalization and Development Programme (RADP) were designed to support land reform beneficiaries who acquired land since 1994. However, such support according to Binswanger-Mkhize only focused on infrastructure growth and capacity development. According to DRDLR (2013), the available mentorship support and skill development is primarily to assist in transiting beneficiaries from subsistence to commercial farming. However, beneficiaries

interviewed were dissatisfied with this post-settlement initiatives of commercialisation, rather than impacting the required skills for enduring and successful farming.

Inadequate market information

The respondents (74%) interviewed, asserted that inadequate market information posed a challenge to land reform beneficiaries. However, information required by beneficiaries as noted in the interview include the following: seedlings and crop information, information on production techniques, information on market prices of goods and farm products, information on diseases outbreak, availability of farm credits, weather information, and expert advice on crop and animal maintenance. Market information is very crucial to the success of farming business. According to Nkonya, *et.al* (2012) access to market information assist farmers to make informed decision about their farm produce. Furthermore, as noted by Naruka *et.al* (2017); Mittal and Mehar, (2018), timeliness of agricultural information is required for effective marketing of farm produce. In addition, LawalIro, *et.al,* (2014), asserted that the use of market information by farmers is dependent on the strategy use in the delivery and access. However, result found that due to inadequate market information, beneficiaries in the area, in most instances failed to negotiate good price for their farm produce thus resulting in selling at cheaper price.

Inadequate agricultural extension services

Result reveal that 65% of respondents agreed that extension services were major challenge in the area. Consistent with the interview conducted, most beneficiaries have expressed serious and obvious need for extension services, mostly on skill support and general agricultural information. Additionally, there have been a lot of denigration from literature and public sphere of the discontentment and ineptitude of extension service in the area. Nevertheless, agricultural extension service is concern with strengthening of capacity, offering assistance, sharing and building trust in response to the needs, aspirations and priorities of farmers (Agholor, 2019). Furthermore, the provincial department of agriculture has been entrusted with the provision of extension support to facilitate capacity development of land reform beneficiaries in the area (DRDLR, 2014). The importance of extension under the current land reform dispensation cannot be over-emphasized as the need for agricultural intensification and productivity remain a prerequisite for growth and development of farmers in the area.

CONCLUSIONS AND RECOMMENDATION

The farmers' subjective perception varied along the hierarchy (very dissatisfied, dissatisfied, undecided, satisfied and very satisfied) of variables in the study. Gender, age, education and farm experience with exception of employment and farm size were found to be significant variables that influence perception of land reform. The identified challenges of beneficiaries were credit constraints, insufficient skills, inadequate market information, and inadequate extension advisory services. Land reform should be based on a clear identification of needs assessment of beneficiaries. The subjective perception by respondents in the study, were deemed critical contraptions for land acquisition and allocation in Reef, Nkomazi Local Municipality, South Africa. However, land reform should be guided by clear policy framework to address the identified challenges encountered by beneficiaries. Furthermore, land reform and

post-settlement support should include effective stakeholder consensus in the implementation process.

REFERENCES

Advisory panel on land reform and agriculture South Africa, 2019. The presidential advisory panel on land reform and agriculture, South Africa

Adzenga J I, Umar, I S, Olaleye R S, Ajayi, OJ and Onyenkazi H A. 2019. Farmers' perceived effects of communal conflicts on the delivery of agricultural extension services in North-Central, Nigeria. *Journal of Agricultural Extension.* 23 (4) 39-47.

African National Conference, 2017. Nasrec, proceedings, Gauteng South Africa, 2017.

Agholor A I. 2019. Gender gap in Sub-Saharan Africa, reminiscence of rural extension and advisory services: delineation, challenges and strategies. *South African Journal of Agricultural Extension (S. Afr. J. Agric. Ext.*) 47(3): 46 – 60.

Agresti A and Kateri, M. 2017. Ordinal probability effect measures for group comparisons in multinomial cumulative link models. *Biometrics*, 73(1): 214–219.

Aliber M and Cousins B. 2013. Livelihoods after land reform in South Africa. *Journal of Agrarian Change.* 13 (1) 13-47

Binswanger-Mkhize, H P. 2014. From failure to success in South African land reform. *African Journal of Agricultural and Resources Economics,* 9 (4) 253-269.

Chitonge H and Ntsebeza L. 2012. Land reform and rural livelihood in South Africa: Does land matter? *Review of Agrarian Studies,* 2(2): 1-43.

Cousins, B. 2013.Land and agriculture uncoupled: The political economy of rural reform in Post-apartheid South Africa', in Paul Hebinck and Ben Cousins (Eds.), In the shadow of policy, Johannesburg.

Daniel F, Arnold, R. and Pledger. S. 2016. Mixture-based clustering for the ordered stereotype model. *Computational Statistics & Data Analysis* 93(1): 46–75.

Department of rural development and land reform, draft communal land tenure policy, Pretoria. 2014. Directorate: communication services, P/b X883, Pretoria, 0001.

Department of rural development and land reform. 2015c. Fact sheet: Comprehensive rural development programme nationally. Directorate: Communication services, P/b X883, Pretoria, 0001.

Department of rural development and land reform.2014. Department of rural Development and land reform. *Annual reform 1 31March – 1 April. 2014.* RP281/2014, ISBN 978-0-621-4347-9.

Department of rural development and land reform .2013c. Strengthening the relative rights of people working the land: *Policy proposals.* Directorate: communication services, P/b X883, Pretoria, 0001.

Department of rural development and land reform .2013a. Policy for the recapitalization and development programme of the department of rural development and land reform*: 23 July 2013.* Directorate: communication services, P/b X883, Pretoria, 0001.

Diagnostic Report on Land Reform in South Africa. 2016. Commissioned report for high level panel on the assessment of key legislation and the acceleration of fundamental Change, an initiative of the parliament of South Africa, institute for poverty, land and agrarian Studies. University of the Western Cape.

Edeoghon C O and Ajayi M T. 2015. Assessment of benefits of urban agriculture in Edo and Oyo States, Nigeria. *Journal of Extension Systems*. 31 (1): 1-14

Fernandez D, Liu I and Costilla R. 2019. A method for ordinal outcomes: The ordered stereotype model. *Int J Methods Psychiatr Res*. 28 (1801): 1-12.

Fullerton A S and Xu J. 2016. Ordered regression models: parallel, partial, and non-parallel alternatives. Published by chapman and hall/CRC, B/W. Page 172-182.

Food and Agriculture Organisation. 2012. Guiding principles for responsible contract farming operations. Rome: Food and Agriculture Organisation for United Nation.

Hall R and du Toit A. 2014. Position papers for the national land tenure summit: Johannesburg, 4th -6th September, 2014. Cape Town: programme for land and agrarian studies, University of the Western Cape.

Hendriks S L and Olivier N J. 2015. Review of the South African agricultural legislative Framework: food security implications. *Development Southern Africa*. 32(5) 555-576.

Hielmar U. 2012. Consumers' purchase of organic food products. A matter of convenience and reflexive practices. *Article in Appetite* 56(2):336-44.

Nkonya E, Karsenty A, Msangi S, Souza J C, Shah M, von Braun J, Galford G and Park S J. 2012. Sustainable land use for the 21st century. Rome: Food and Agriculture Organisation of the United Nations.

Ighoro A, Alakpa S O E, Koyenikan M and Awhareno U S. 2019 Perception of organic farming among urban vegetable farmers in Delta Central Agricultural Zone. *Journal of Agricultural Extension.* 23 (4):76-83

LawalIro S, Boadi BY, Oladokun O and Kalusopa T.2014. The Generation and dissemination of agricultural information to farmers in Nigeria: A Review. *Journal of Agriculture and Veterinary Science* 7(2):102-111

Mittal S, and Mehar M. 2018. Agricultural information networks, information needs and risk management strategies: A survey of farmers in Indo-Gangetic plains of India

Naruka P S, Verma S, Sarangdevot S S, Pachauri C P, Kerketta S and Singh J P. 2017. *Asian Journal of Agricultural Extension, Economics & Sociology*, 20 (1): 1-11.

Ndamani F and Watanabe T. 2015. Determinants of farmers' adaptation to climate change: A micro level analysis in Ghana. *Sci. Agric*. 73(3): 201-208

Nouman M, Siddiqi M F, Asim M S and Hussaini Z. 2013. Impact of socio-economic characteristics of farmers on access to agricultural credit. *Sarhad J. Agric.* 29(3): 1-9.

Pandis N. 2017. Logistic regression: part 1. *Am J Orthod Dento facial Orthop*. 151 (2):824-825.

Uddin M N, Bokelmann W, and Entsminger J S. 2014. Factors affecting farmers' adaptation strategies to environmental degradation and climate change effects: a farm level study In Bangladesh. Climate 12(2):223-241.