Title: A Cluster Analytical Creation of Ill-defined Land Rights and Associated Implications On land Ownership Conflicts In South Africa

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Extended Abstract

Land in Sub-Saharan Africa is vulnerable to different conflicts, contest, disagreements, conquest and exploitation that have an adverse negative impact on the socio-economic and political conditions of many groups of people. Secure property rights over land are critical for achieving peace and social stability to countries such as South Africa where past land administration practices have been riddled with state led social injustices. Violent conflict because of competition for access, control and the use of land resources has been the norm in pre independence as well as post-independence South Africa. Correcting such injustices requires a critical examination of potential conflicts associated with disputed ownership rights over land. We argue that such critical reflection on property rights over use of land may pave way to establishing sustainable ways of dealing with social justice contested land ownership futures. Contested land ownership cases in South Africa are reported and made public by the land claims court. This analysis sought to review such cases by establishing unique land dispute clusters that exhibited similar land conflict outcomes. In defining conflicts over use of land, we borrowed insights from game theory which suggests that conflict arises when the marginal value of land of one agent ("the aggrieved") is lower than that of another interested agent (the current owner). Such conflict is a game ending move that will see the aggrieved agent taking the case to court. The analysis reviewed 244 land cases that are posted online by the Land claims Court of South Africa. These cases ranged from 2009 up to April 2019. Each of the cases was reviewed from the view point of the aggrieved, who in this analysis is referred to as the applicant. The review made assumed that the final decision of the court may either retain or dismiss the right to land ownership by the applicant. An objective way to assess such land ownership rights retained or taken away was to use Honore's 11 strands of ownership rights. Each of the 11 rights were assigned scores on a 5 point likert scale with 1 depicting a low score when the specified right is not lost and 5 depicting highest score when that right is totally lost. Data was first tested normality and homoscedasticity. Exploratory factor

Analysis was used to measure construct validity. Hierarchical Agglomerative Cluster Analysis (HACA) was then used as an appropriate multivariate segmentation tool to group land cases with similar land rights characteristics. To determine the number of emerging clusters a scree plot was constructed. The outcome of HACA was presented using a Dendograph and an ArcGIS generated map. To determine predictor importance and the general quality the resultant cluster system a complementary two step clustering process was conducted. The relative stability of the resulting clusters was tested through the Kruskal Wallis H test. Results revealed three main clusters of land disputes cases depicting different land conflict scenarios. Of the 244 cases reviewed, 49.2 % cases were related to land expropriation while 50.2 % were not. Of all cases analysed, 43.9 % were dismissed while 36.9 % were granted. The remaining cases were either set aside or postponed. Although each of the 9 provinces of South Africa had a fair share of land dispute cases, the majority of the cases were from Western Cape (17.2%) and Kwazulu Natal (16.4 %) Mpumalanga (11%), Limpopo (9.8%) and Eastern Cape (8.6%) provinces. Approximately eighteen percent of the other cases could not be classified by province. Despite the geographical distribution of land cases, the majority of court hearings were held in Johannesburg (73 %), Cape Town (12.7 %) and Durban (8.6 %). Results from HACA revealed a 3 cluster solution. The main predictor variables in order of their importance included rights to security, execution, transimibility, capital and right to manage land. The computed measure of 'silhouette measure of cohesion and separation' depicted a fair quality of the generated cluster solution. Cluster type 1 cases are characterised by 110 land cases, cluster type 2 type by 71 land cases and cluster 3 type by 63 land cases. Applicants whose cases belonged to cluster 1, were the most affected as the disputed land cases saw them losing substantial rights to land ownership including rights to possess, use, manage, income, capital, security, transimibility, and execution. The second most affected group of applicants were cluster type 3 while cluster type 2 were the least affected by the court rulings. Since the bulk of cases in cluster 1 type belong to Limpopo (18), kwazulu Natal (16) western cape (11), and Mpumalanga (11) provinces, it can be argued that the land use rights disparities in South Africa have a spatial bias. The land claims court takes on average 2.79 years (standard deviation = 3.264) to resolve land disputes a situation that only delays the rights to land ownership by the applicants. Since 2009, land dispute cases have been on the rise despite a number of constitutional reforms. The use of Honore's 11 strands of rights has revealed that the top 5 rights that applicants tend to lose through the courts include the right to use, right to possess, right to manage, right to security and right to income. Future constitutional reforms that seek to address property rights over land should take cognisance of such bundles of rights. Complementary conflict resolution mechanisms should be systematically implemented in the most affected provinces as the analysis has revealed spatial disparities in land disputes.

Key words: land rights, land disputes, conflict resolution, social justice

Introduction

The need to improve the relations between people, urban land and rural land has been a topical issue since the draft UN Post-2015 Development Agenda in which no less than six (6) of the twelve (12) drafted universal goals implied the need for better land governance, land rights, and land information management (UN, 2013; Bennet and Alemie, 2016). This in part is the realization that the distribution and definition of land

property rights play a crucial role in addressing poverty, food security, promoting income growth, and accumulation of human and physical capital among many other developmental goals (Easterly, 2007; Muñoz-Mora et al., 2018). Empirical evidence coming from western economies has shown that, a well-defined and more formalized scheme of land property rights is usually associated with higher levels of investment, income growth, accumulation of human and physical capital and poverty reduction, among many other social and economic outcomes (Banerjee, et al., 2002; Deininger & Nagarajan, 2009; Dercon & Krishnan, 2010). By contrast, high levels of informality associated with ill-defined land property rights represent an important but unacceptable hindrance to the development processes (Acemoglu & Robinson, 2006; Dercon & Krishnan, 2010). Understanding consequences associated with ill-defined land rights, may therefore represent an important step towards addressing a myriad land conflict scenarios which may range from social tensions, illegal recruitment, forced displacement and land appropriation, to a wide range of illegal land activities in conflict areas (Ibanez & Carlsson, 2010).

While considerable amount of research on the social and economic consequences associated with either formal or informal land property rights systems (Muñoz-Mora et al., 2018) exist, relatively little attention has been placed on understanding the scope and nature of land property rights lost or gained by aggrieved parties in a land conflict scenario. To the best of our knowledge, this is the first study to provide empirical evidence drawn from court cases on the relationship between different levels of ill-defined property rights and land conflicts. Existing studies can best be labelled as 'hear say investigations' that are overly biased towards understanding land property rights implications associated with formalized land tenure regimes. As a result we know with a greater level of certainty about a number of implications associate with secure land property rights. Current evidence suggests that secure land property rights are instrumental in promoting income growth and the accumulation of human and physical capital (Besley & Burgess, 2000; Deininger & Nagarajan, 2009), poverty reduction (Galiani & Schargrodsky, 2010), labour supply (Field, 2007), political empowerment (Goldstein & Udry, 2008), reduction in social confrontations (Albertus & Kaplan, 2013) and in elevating the bargaining power of the less wealthy (Banerjee et al., 2002). What we don't know , however how is ill-defined land property rights are translating into a mosaic of local regulatory arrangements and land policy outcomes that affect the right to own land. We reduce this knowledge gap by investigating how ill-defined land rights translate into a mosaic of local regulatory arrangements and land policy outcomes that affect the right to own land in South Africa. We do this by employing joint lenses of case-law analysis and analysis of associated land property rights.

Our study is motivated by the understanding that secure land property rights are critical to resolving land ownership conflicts and safeguarding bundle of rights to land ownership. We also realise that secure property rights over land are critical for achieving peace and social stability to countries such as South Africa where past land administration practices have been riddled with state led social injustices. Violent conflict because of competition for access, control and the use of land resources has been the norm in pre independence as well as post-independence South Africa. Correcting such injustices requires a critical examination of potential conflicts associated with disputed ownership rights over land. We argue that such critical reflection on property rights over use of land may pave way to establishing sustainable ways of dealing with social justice contested land ownership futures.

The structure of this paper is as follows. Following this introduction we discuss the methods and materials used to access the required data to fulfil the study objectives. A results and discussion session is then given in the following session. We wind up by giving some concluding remarks.

Materials and Methods

Data Source

We chose to review court cases from the land claims court because of a number of reasons. First, the cases were readily accessible online. We also considered the cases to be credible and of acceptable quality as the judiciary system in SA has been not been immune to, and has been imbued by the expansion and strengthening of democracy around the globe, and the emphasis on the rule of law (Ciocchini, 2017). Second, there is in principle the general political expectation that their decisions would have an important political impact, particularly in relation to minority rights (Ciocchini, 2017). Thirdly, decisions of the courts are assumed to heavily rely on the moral and political leadership of qualified Judges. We did not consider the SA judiciary system to be characterised by what others elsewhere has referred to as the 'loss of moral and political leadership by some judges' primarily due to institutional weakness and institutionalised corruption associated with judicialization of politics among other factors (Timberman 2016).

Attributional and consequential assessment

Literature is awash with several methods and tools for analysing implications of ill-defined land rights on land conflicts. There is however a disturbing level of uncertainty when it comes to how to assess the property rights implications associated with case-law generated data.as well as consequential implications on land conflict related issues. This study was not immune to such uncertainties. A plausible starting point to dealing with such a challenge was to review assessment approaches often employed in analysing property right consequences associated with land conflict situations (Gondo and Kyomuhendo, 2011). We began by acknowledging that property right issues associated with ill-defined land rights should be viewed as a complex, persistent, and multidimensional phenomenon that requires the adoption of multi-item approaches that are sensitive to specific land conflict contextual realities (Brasselle et al., 2002; Pande & Udry, 2006). We see this characterization consistently reflected in approaches often discussed in land conflicts and property rights literatures (Besley & Burgess, 2000; Deininger & Nagarajan, 2009) Common among these approaches is the identification of important property rights attributes to be assessed.

Such identification is then followed by an analysis of consequences associated with ill-defined land rights (Ibanez & Carlsson, 2010; Muñoz-Mora et al., 2018). Multi –item or rather multi criteria approaches that integrate all property rights attributes associated with ill-defined property rights are instrumental in the performance of such consequential assessments. To perform such consequential analysis, we began by noting that contested land ownership cases in South Africa are reported and made public by the land claims court. This analysis sought to review such cases by establishing unique land dispute clusters that exhibited similar land conflict outcomes. In defining conflicts over use of land, we borrowed insights from game theory which suggests that conflict arises when the marginal value of land of one agent ("the

aggrieved") is lower than that of another interested agent (the current owner). Such conflict according to game theory is a game ending move that will see the aggrieved agent taking the case to court. The analysis reviewed 244 land cases that are posted online by the Land claims Court of South Africa. These cases ranged from 2009 up to April 2019. Each of the cases was reviewed from the view point of the aggrieved, who in this analysis is referred to as the applicant. The review made assumed that the final decision of the court may either retain or dismiss the right to land ownership by the applicant. An objective way to assess such land ownership rights retained or taken away was to use Honore's 11 strands of ownership rights. Such a stance was not misplaced given that related land property rights studies often make reference to such either explicitly (Gondo & Kyomehendo, 2011) or implicitly (Deininger & Chamorro, 2004; Conning & Robinson, 2007; Deininger et al., 2008; Macours et al., 2010). Such 11 strands of ownership rights are summarised in Table 1.

Table 1. Honores 11 strands of ownership rights as used in this study

Incidence of ownership	Brief Description
1. The right to possess	The right to exclusive physical control of the land property owned. Here the land owner enjoys right to exclude others from the use or other benefits associated with land property.
2. The right to use	The right to personal enjoyment and use of the land
3. The right to manage	The right to decide how and by whom a the land shall be used
4. The right to the income	The right to the benefits derived from foregoing personal use of land and allowing others to use it
5. The right to capital	The power to alienate the land property, including the right to sell or give it away, and to consume, waste, modify, or destroy it.
6. The right to security	Immunity from expropriation – meaning the land cannot be taken from the right-holder
7. The power of transmissibility	The power to devise or bequeath the land - meaning to give land right to somebody else after your death.
8. The absence of term	The indeterminate length of one's ownership rights - that is, that ownership is not for a term of years, but forever.
9. The prohibition of harmful use	A person's duty to refrain from using the land right in certain ways harmful to others.
10. Liability to execution	liability for having the land right taken away for repayment of a debt
11. Residuary character	The existence of rules governing the reversion of lapsed ownership rights. This includes the ability to indicate who is entitled to the property if the taxes are not paid, or if some other obligation of ownership is not exercised.

Source: Adapted from Honore, 1961.

Each of the 11 rights were assigned scores on a 5 point likert scale with 1 depicting a low score when the specified right is not lost or not contested and 5 depicting highest score when that right is totally lost or totally contested. Data was first tested normality and homoscedasticity. Exploratory factor Analysis was used to measure construct validity. Hierarchical Agglomerative Cluster Analysis (HACA) was then used as an appropriate multivariate segmentation tool to group land cases with similar land rights characteristics. To determine the number of emerging clusters a scree plot was constructed.

Hierarchical Agglomerative Cluster Analysis (HACA) Explained

Few studies have attempted to examine large datasets of case laws and to conduct comparisons that identify unexpected similarities and differences among land property rights that are being contested This analysis uses HACA to identify relative similarities among, and distances between a sample of 244 case laws drawn from the land claims court in analysing the nature of disputed land property rights associated with a disputed land right. HACA refers to a class of multivariate statistical techniques developed for the analysis of data collected from dependent groups or clusters. HACA allowed the analysis us consider the relationship between ill-defined property rights as implied by each case law and associated outcomes defined by consequential implications on the nature of ensuing land ownership conflict. Prior to conducting HACA, raw data were processed for "homogenization" and "non-dimensionality" which is a standard requirement as there can then be questions of examining the homogeneity across cases of the distribution of the scaled values (Hall, 2003). Study constructs were first tested for normality. Land property rights iIndicator variables were further explored for reliability and validity through Exploratory Factor Analysis (EFA) using the Principal Component Analysis (PCA) method with varimax rotation.

Conceptually, the HACA denotes associated land ownership conflict outcomes for ill-defined property right i in case j as Yij. This outcome is represented in equation one as a function of the individual land property right attributes, Xqij, and a model error rij (Bryk & Raudenbush, 1992). The individual land property right attributes, Xqij are in these cases depicted by Honores 11 strands of rights ownership.

$$Y_{ij} = \beta_{0j} + \beta_{1j}X_{1ij} + \beta_{2j}X_{2ij} + ... + \beta_{nj}X_{nij} + r_{ij} \qquad \textbf{(Equation one)}$$

where $r_{ij} \sim N(0, \sigma^2)$.

The HACA approach adopted here is essentially bottom up process, where objects and then clusters of objects are progressively combined on the basis of a linkage algorithm that uses the distance measures to determine the proximity of objects and then clusters to each other (Legendre and Legendre, 1998). The analysis adopted 'Euclidean distance', as a standard metric to calculate distances (interpreted as the similarity) between all objects in a data matrix (Olden et al., 2012). This was done on the basis that those objects (i.e. 244 case laws) closer together in terms of land rights contested are more alike than those objects further apart. An acceptable solution was achieved using Ward (minimum variance) distances. The basic Euclidean distance formula was used as there were no theoretical reasons to prefer a more complex formula, and other formulas did not produce substantially different or more interesting results. At each step, the pair of clusters merged was based on the optimal value of the error sum of squares as defined in equation 2.

d$_{ij}$= d({X$_i$}, {X$_j$}) = || X$_i$– X$_j$||^2).   (Equation Two)

where **d$_{ij}$** is the squared Euclidean distance between **x$_i$** and **x$_j$**.

The results of hierarchical clustering were also visualized using a tree-like structure known as a ***dendrogram***. A GIS map using arview GIS was constructed to give a spatial visual of the results. Testing of the significance of the resulting cluster was done using Kruskal-Wallis H - test.

Results and Discussion

The majority of court applications submitted by the aggrieved to the land claims court were from individuals. A significant proportion also came from companies, communities and trusts (Figure 1).
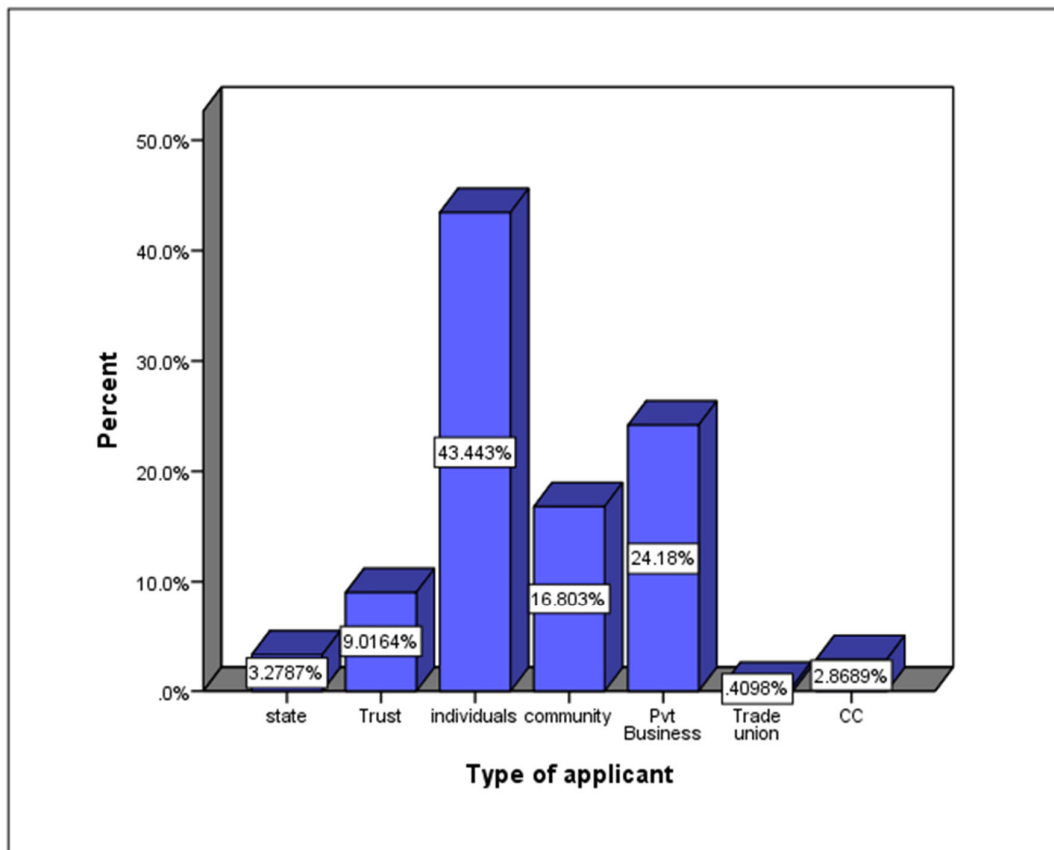

Figure 1: Type of applicants

Source: Author construct, (2019)

Three main categories of the accused emerged under the period of study. These included individuals, the state and private companies (Figure 2)
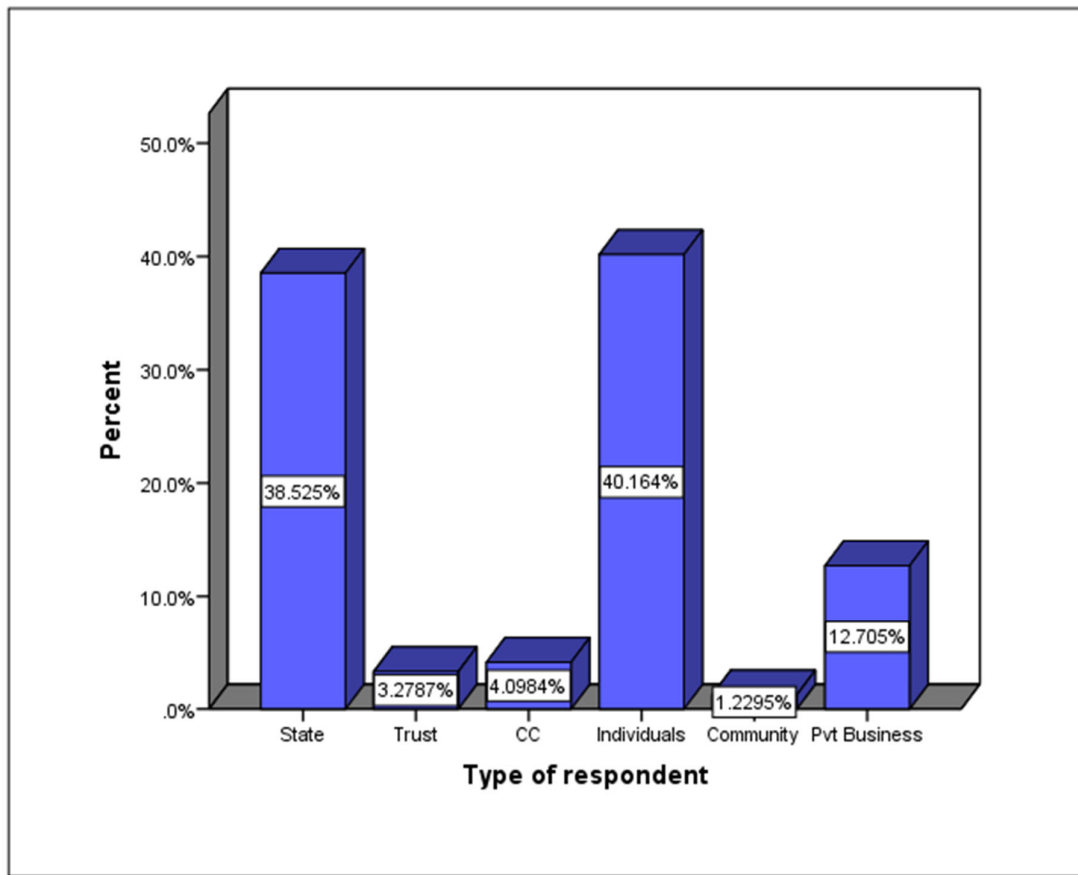
Figure 2. Type of Applicant

Source: Author construct, (2019)

Two types of land cases were generally heard during the period of study. Of the 244 cases reviewed, approximately 49.2 % cases were related to land expropriation while 50.2 % were not (figure 3). Of all cases analysed, 43.9 % were dismissed while 36.9 % were granted. The remaining cases were either set aside or postponed. Although each of the 9 provinces of South Africa had a fair share of land dispute cases, the majority of the cases were from Western Cape (17.2%) and Kwazulu Natal (16.4 %) Mpumalanga (11%), Limpopo (9.8%) and Eastern Cape (8.6%) provinces. About eighteen percent of the other cases could not be classified by province. Despite the geographical distribution of land cases, the majority of court hearings were held in Johannesburg (73 %), Cape Town (12.7 %) and Durban (8.6 %). We also observed that the land claims court takes on average 2.79 years (standard deviation = 3.264) to resolve land disputes a situation that only delays the rights to land ownership by the applicants. Since 2009, land dispute cases have been on the rise despite a number of constitutional reforms. Given such an unfolding scenario we argue that the impact of SA's judicial reforms in promoting managerial rationality to speed up the processing of court cases need to be revisited. This is because the current gestation period in terms of processing court cases is long. If the processing time is not cut, dire consequences with be registered in relation

to the political expectations associated with their decisions, particularly in relation to minority land rights (Ciocchini, 2017). There is an urgent need to implement new managerial mechanisms to achieve faster disposal times. The expectation would be to increase their disposal efficacy without hindering or compromising their adjudicative functions (Kohler-Hausmann 2014; Bastard et al.al., 2016).
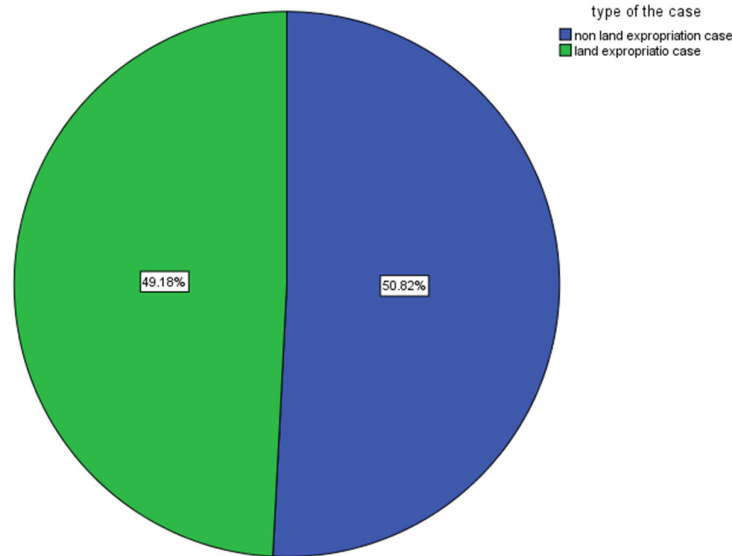

Figure 3. Type of ill-defined land rights

Source: Author construct, (2019)

Before HACA was conducted, data was tested for normality. This is because many of the statistical procedures associated with HCA are based on the assumption that the data follows a normal distribution. The analysis used the commonly employed indices generated from D'Agostino skewness test and Anscombe-Glynn kurtosis test as shown in table 2. Based on cut off points suggested by Field, (2009), the study variable 'harmful use' had problems with normality and was therefore removed from the final analysis. The scale reliability statistic of the overall study construct (as measured by the Cronbach's Alpha statistic = 0.931) was way above the recommended cut-off level of acceptance according to Hair et al. (2009).

Table 2. Normality test results

Study variables	Mean	Std dev.	Skewness	Kurtosis	Remark*	Action
The right to possess	3.89	1.255	-0.965	-0.181	Normal	retain
The right to use	4.18	1.138	-1.381	1.058	Normal	retain
The right to manage	3.21	1.488	-0.107	-1.430	Normal	retain
The right to the income	3.04	1.271	-0.312	-0.975	Normal	retain

The right to capital	2.98	1.288	-0.230	-1.054	Normal	retain
The right to security	3.07	1.524	-0.125	-1.423	Normal	retain
The power of transmissibility	2.81	1.599	0.190	-1.526	Normal	retain
The absence of term	3.02	1.602	-0.015	-1.533	Normal	retain
The prohibition of harmful use	1.41	0.975	2.539	5.543	Non-normal	remove
Liability to execution	2.59	1.464	0.348	-1.215	Normal	retain
Residuary character	2.38	1.533	0.569	-1.276	Normal	retain

Cronbach's Alpha = 0 .931

**Assessment of asymmetry and kurtosis analysis used indices for acceptable limits of ±2 (Field, 200

Source: Author construct, (2019)

Exploratory factor Analysis (EFA) using Principal Component Analysis (PCA) and varimax rotation method was used to measure construct validity. EFA was performed indicating the adequacy of this analysis to explain the correlations between variables. The Kaiser – Meyer Olkin (KMO) measure of sampling adequacy has returned a satisfactory value - indicating the adequacy of this analysis to explain the correlations between variables (KMO = 0.90, total explained variance of 73.93%). The PCA retained a latent data structure (see table 3) that can be compared to the basic elements land property rights often mentioned in land conflict and property rights literature.

Table 3. Component matrix[a]

	Component
	1
Study variable	
right to execution	.911
right to security	.909
right to transimibility	.894
right to manage	.818
right to capital	.807
right to absence of term	.764
right to residual character	.749
right to income	.713
right to use	.628
right to posses	.624

Extraction Method: Principal Component
Analysis.
[a]1 component extracted.
Source: Author construct, (2019)

As depicted by the relative point of elbow in the figure 4, a 3 cluster solution depicting various land property rights contestation scenarios was generated. Such 3 clusters are also portrayed in the dendograph given in figure 5.
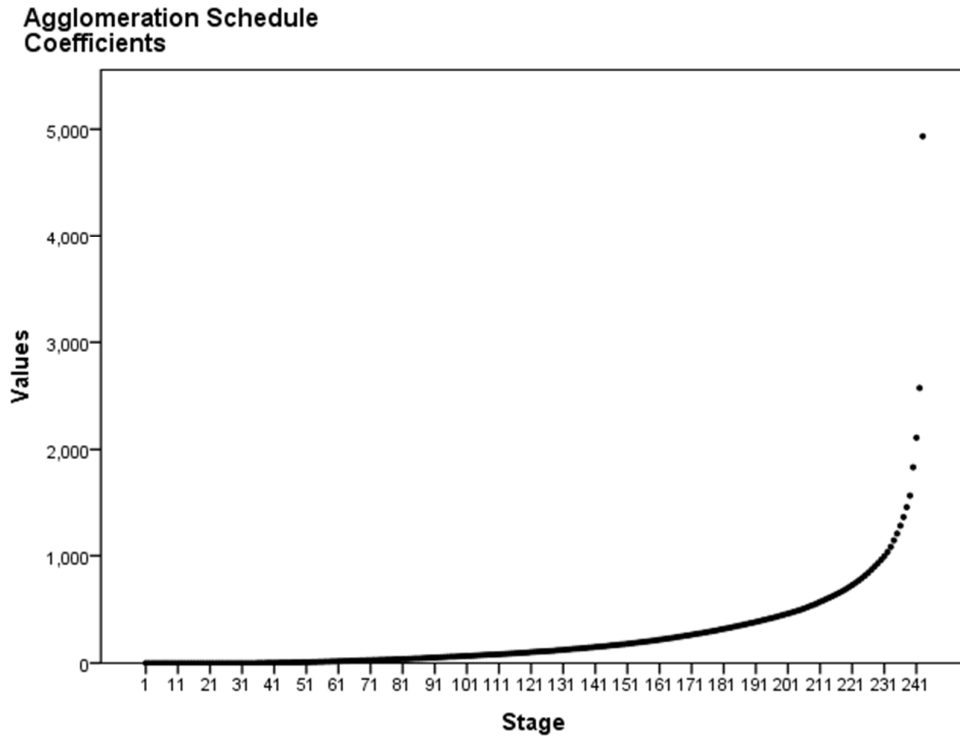

Figure 4: Scree plot showing a 3 cluster solution.
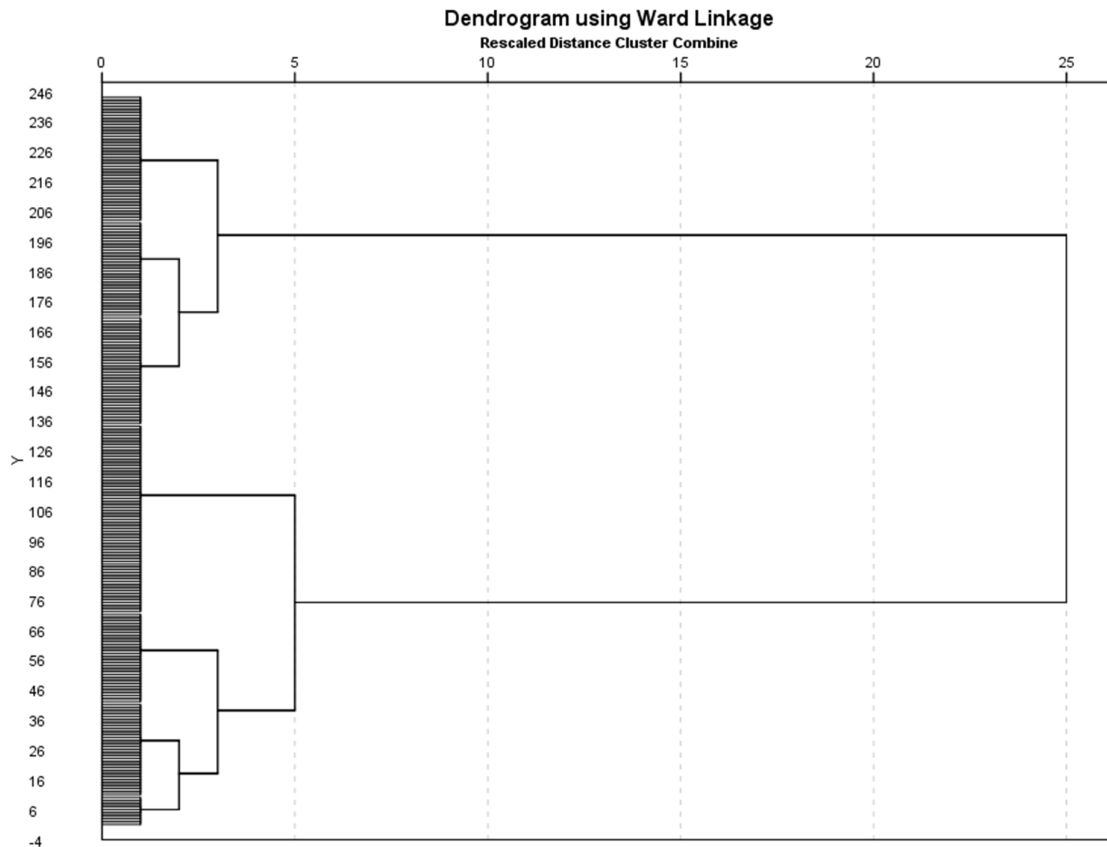
Figure 5. A rescaled Dedograph showing a 3 cluster solution

Source: Author construct, (2019)

Because the correlation structure in HACA is based on the assumption that data is correlated with a group/cluster, but independent between groups/clusters checking the relative stability of the final clusters is a requirement (Cameron et al., 2008). Kruskal-Wallis H - test was used to evaluate the relative stability of the cluster system by testing the hypothesis that the distribution of rank scores was the same across the three cluster solution. A Kruskal-Wallis H - test revealed that the cluster system created was relatively stable ($\chi2$= 243; df = 2; P-value < 0.05). The relative stability of such a cluster system was further reflected in the pairwise comparison of individual clusters. Results revealed no cases of cluster overlap (see Table 4).

Table 4: Pairwise comparison of Clusters based on Kruskal-Wallis Test ANOVA test results

Pair description Cluster a - Cluster b	Test Statistic (χ^2)	Std. Error	Standardized Test Statistic	P-value	Adjusted P-value.
Cluster 1 – Cluster 2	-90.500	10.002	-9.048	.000	.000
Cluster 1 – Cluster 3	-157.500	10.381	-15.172	.000	.000
Cluster 2 – Cluster	-67.000	11.372	-5.892	.000	.000

3					

Each row tests the null hypothesis that Cluster *a* and Cluster *b* distributions are the same. Asymptotic significances (2 sided tests) are displayed. The significance level is 0.05.

Source: Author construct, (2019)

Such analysis was also complemented by the computed measure of 'silhouette measure of cohesion and separation' which depicted a fair quality of the generated cluster solution (figure 6).

Model Summary

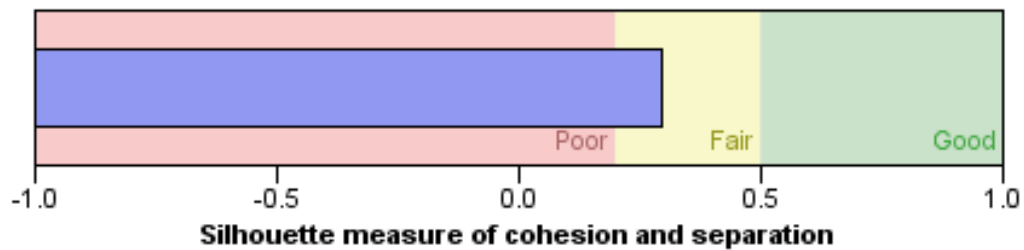| Algorithm	TwoStep
Inputs	10
Clusters	3

Cluster Quality

Figure 6. Cluster quality as depicted by the Silhouette measure of cohesion and separation
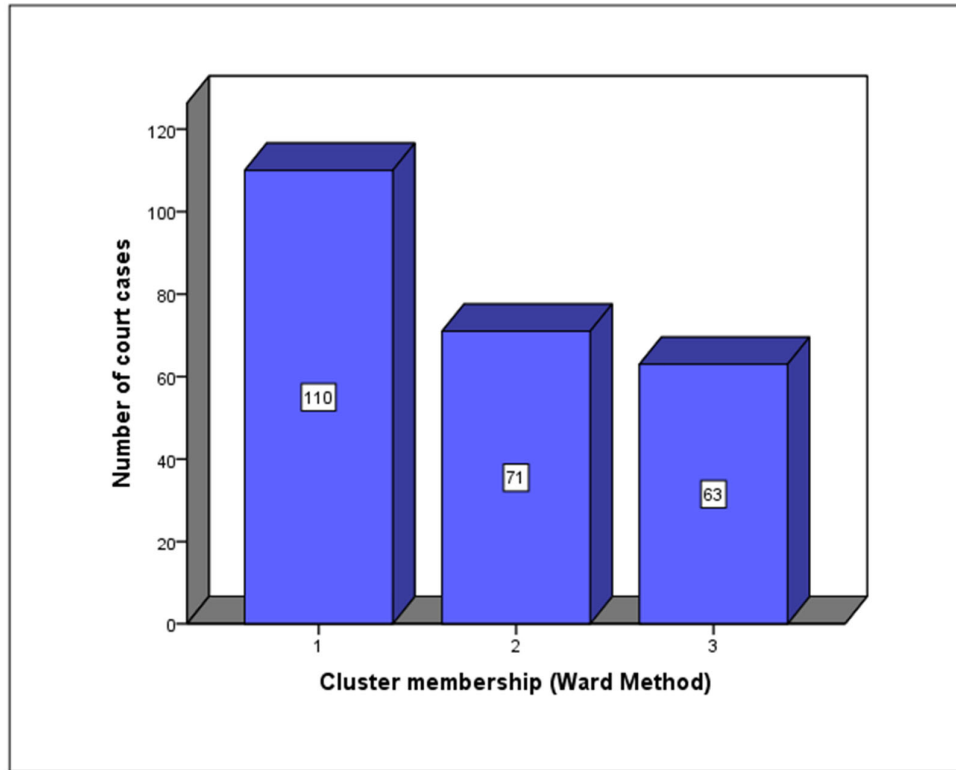
Source: Author construct, (2019)

Figure 8. Cluster membership

Source: Author construct, (2019)

Cluster 1 is the largest cluster comprising of 110 cases followed by cluster 2 with 71 cases and lastly cluster 3 with 63 cases. Combined cluster information revealed that, the most contested rights associated with ill-defined land ownership in South Africa relate to the right to use and the right to possess (Table 5). These results do not come as a surprise given the historical social injustices that has been associated with the Apartheid land allocation system. Specific variations however exist with regard to contested land rights per cluster (Table 6). While the right to possess and the right to used is consistently a contested issue in all clusters exceptional cases do exist.

Table 5: Most contested land property rights issues in South Africa (N = 244 land cases)

Category of contested land property rights	Mean score Statistic	Bootstrap[a]			
		Bias	Std. Error	95% Confidence Interval	
				Lower	Upper
right to posses	3.89	.00	.08	3.73	4.04
right to use	4.18	-.01	.08	4.03	4.32
right to manage	3.21	-.01	.09	3.03	3.39
right to income	3.04	.00	.08	2.87	3.20
right to capital	2.98	.00	.08	2.82	3.15
right to security	3.07	-.01	.10	2.88	3.27
right to transimibility	2.81	.00	.10	2.61	3.00

right to execution	3.02	.00	.10	2.81	3.21
right to residual character	2.59	.00	.09	2.41	2.76
right to absence of term	2.38	.00	.10	2.19	2.57

Source: Author construct, (2019)

In cluster 1, we also see other issues of contestation and / conflict topping the list (with mean score values of greater than 4). These include the right to manage, right to execution, and the right to security. Other topping land conflict scenarios for few cases that belong to cluster 3 include right to capital and right to income. Judging on the mean score values portrayed in Table 6, we argue that 71 court cases reflect less conflicted land property rights when compared in relative terms to the most conflicted characterising the majority of court cases (110) in cluster 1 and a few cases belong to cluster 3.

Table 6: Most contested land property rights issues per cluster in South Africa

Category of contested land property rights	Mean score values per cluster					
	Cluster 1 (n = 110 cases)		Cluster 2 (n = 71 cases)		Cluster 3 (n – 63 cases)	
	Mean	Std dev.	Mean	Std dev.	Mean	Std dev.
right to posses	4.57	.735	3.41	1.517	3.22	1.039
right to use	4.78	.514	3.59	1.564	3.81	.820
right to manage	4.43	.943	2.17	1.265	2.25	.718
right to income	3.75	.859	1.76	1.247	3.22	.683
right to capital	3.78	.902	1.44	.788	3.32	.618
right to security	4.42	.747	1.20	.467	2.84	.766
right to transimibility	4.23	1.046	1.14	.487	2.22	.851
right to execution	4.45	.874	1.08	.327	2.68	.737
right to residual character	3.48	1.501	1.24	.597	2.56	.736
right to absence of term	3.65	1.323	1.32	.713	1.33	.539

Source: Author construct, (2019)

Conclusion

The use of Honore's 11 strands of rights has revealed that the top 5 rights that applicants in South Africa have contested through the courts include the right to use, right to possess, right to manage, right to security and right to income. Future constitutional reforms that seek to address property rights over land should take cognisance of such bundles of rights. Complementary conflict resolution mechanisms should be systematically implemented in the most affected provinces as the analysis has revealed spatial disparities in land disputes. Our analysis has in some way has hinted that a socially just land ownership system in South Africa may be achieved by encouraging formal land property rights schemes that safeguard the right to use, right to possess, right to manage, right to security and right to income among other rights.

Notwithstanding this, we however guard against taking for granted that formal land property rights schemes may be the best option in addressing a myriad of issues associated with ill-defined land property rights in other contexts. In stead counter evidence to this thinking exist.

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