

Economic development and tenure security in South Africa

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Abstract

In relative terms South Africa's former homelands remain economically underdeveloped, both agriculturally and otherwise. To what extent is this a function of inadequate tenure security? The report presents basic concepts regarding land tenure, summarises what is known about the contribution of enhanced tenure security and tenure formalisation to investment and development, and concludes with some thoughts about the applicability of the discussion to economic development in South Africa's former homelands. While the accumulated evidence from Africa and elsewhere suggests that enhanced tenure security is associated with more investment and higher productivity, perceived tenure insecurity over rural land in South Africa's former homelands appears fairly minor; the case has not been made that the generally weak current state of former homeland agriculture has much to do with tenure insecurity. On the other hand, South Africa has relatively little arable land, of which a share appears to be under-utilised land in the former homelands; in other words, the scarcity value of this land is greater than local economic (in-)activity would suggest, and it is conceivable that improved tenure security now could lead to discernible improvements in investment and production in the medium or long-term, in particular through more active rental markets.

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1. Introduction

Certainly since the time of the classical economists, the connection between tenure security and investment (and thus production) has tended to been taken for granted. For example, according to Alfred Marshall in his *Principles of Economics*, "...the character and extent of the improvements [in land] depends partly on the conditions of land tenure..." (Marshall, 1890: 567), which in itself implied a role for government: "In early times, and in some backward countries even in our own age, all rights to property depend on general understandings rather than on precise laws and documents" (Marshall, 1890: 368).

So why at present is this connection so contentious? In part it is because demonstrating the connection between tenure security and investment or productivity empirically/statistically turns out to be quite difficult, as will be shown below. However, there are also other reasons – common points of confusion – which are worth bearing in mind as we proceed:

- Contrary to many people's assumption, 'customary' tenure is not necessarily less secure than statutory tenure
- Efforts to improve tenure security are not always well conceptualised or executed, and
- Tenure security is neither a sufficient nor a necessary condition for encouraging investment.

This paper is organised as follows. Section 2 presents some basic concepts regarding land tenure, tenure security, and the dominant body of theory as to how tenure systems tend to change over time. Section 3 addresses the question of why tenure insecurity exists, and presents some evidence as to the incidence of tenure insecurity in South Africa. Section 4 discusses the meaning of 'tenure formalisation', which is the main means by which governments seek to strengthen tenure security, and explains why tenure formalisation often fails to have the desired effect of promoting investment and enhancing productivity. Section 5 presents an overview of the literature seeking to understand the relationship between tenure security, agricultural investment, and productivity. Section 6 continues the discussion initiated in the preceding section, but with a specific focus on sales and rental markets in land, in particular whether they have desirable outcomes, and whether they are indeed fostered by tenure formalisation. Section 7 broadens the discussion somewhat to entertain other avenues through which improvements in tenure security are understood to contribute to rural economic development. Section 8 briefly considers the relationship between tenure security and non-agricultural development, using the example of renewable energy projects in the Eastern Cape. Section 9 concludes with some reflections on the implications of the discussion for South Africa.

2. Some basics on land tenure

2.1 The meaning of 'land tenure'

'Land tenure' refers to a set of guidelines for use and treatment of land (Obeng-Odoom, 2012; Tenaw et al., 2009; Kyomugisha, 2008). It as an 'institution' denoting rules conceived by societies to regulate conduct regarding land; tenure rules delineate the manner in which 'property rights' to land (natural resources such as water and trees inclusive) are to be allocated within a society, while defining the terms of use and control, whether and how rights may be transferred (e.g. whether temporarily, permanently, or both), as well as other obligations and limitations concomitant to land tenure. These rules can exist by virtue of tradition/custom, or law.

One stumbling block to the proper understanding of 'tenure' is the tendency to conflate it with 'ownership':

"One does not own a property i.e. land, *per se*, but rather rights to and over that property. This bundle of rights usually includes (within the limits) of the law the right to its use, the right to exclude others from its use and the right to offer its use to others. Although these rights are exclusive, they are not absolute. When dealing with land, the bundle of rights is generally split between the public and private individuals and varies across time, countries and between various systems of land tenure. Generally owners have the right to use, sell, trade, liaise, mortgage, or sub-divide their land, while the rights of taxation, regulation and eminent domain are reserved by the state" (Larson, 2003).

2.2 Tenure security and insecurity

Tenure security could be said to be in place when a rights holder (whether an individual or a group) is confident of those rights:

"In every human society, challenges or disputes are bound to occur over landownership, but with security, these rights should be protected and enforced. Security is thus about the exercise of one's rights without the fear of unnecessary interference or fear of forceful eviction" (Domeher *et al.*, 2012, De Souza, 1999).

This confidence – absence of 'fear' – is ultimately subjective, but is presumably based on the rights holder's empirical observation, for example as to how other rights holders in that community fare, or one's assessment of the apparatus in place to protect people's land rights. Obviously the absence of confidence implies tenure insecurity, but it is also worth pointing out that tenure security/insecurity are integrally related to *land administration*, because part of the function of land administration is to protect people's legitimate tenure rights, and another part is to adjudicate disputes. A land administration system that does this poorly or in a biased manner, is apt to be a source of tenure insecurity (Aliber *et al.* 2004); this applies whether the tenure system in question is customary or statutory, and whether the land administration system is 'traditional' or in the form of a modern state bureaucracy.

2.3 Evolutionary theories of land tenure

Common parlance (including that used above) seems to suggest that a tenure system is customary until such time as the state either codifies or replaces it with a statutory tenure system. This is true to an extent, but glosses over an important body of evidence as to the dynamic nature of land tenure systems. One of the earlier exponents of this perspective is Boserup, who saw the growth of population density in an area as the proximate cause of agricultural intensification (e.g. as manifested in the shortening of fallow periods and the increase in investments in soil fertility and fixed investments), which happens in tandem with changes in tenure:

"One of the advantages of the concept of frequency of cropping, as suggested in the present study, is that it makes it possible to bring fallow land, pastures and animal husbandry within the purview of the analysis and thus to appreciate the close relationship between changes in technical and economic factors on one hand and changes in land tenure on the other. In short, this new approach enables us to treat land tenure as an endogenous factor, with the result that arbitrary or unrealistic assumptions about tenure can be avoided in the analysis of investment problems." (Boserup 1965: 6-7)

To generalise quite a bit, under circumstances of land use intensification, tenure evolves to become more exclusive, to vest more in individuals or households as opposed to clans or communities, to allow inheritability, and to allow and protect alienation (including permanent alienation, i.e. selling) (Boserup, 1965: 67-77).¹

This idea that tenure is 'endogenous' is an example of what was later generalized in the theory of 'induced institutional change' (e.g. Ruttan and Hayami, 1984; Binswanger and Ruttan, 1978).

A few points are in order. First, it should be clear that Boserup's argument is of a piece with the conventional view that "the degree of security of tenure for the cultivator is one of the important determinants of investment" (Boserup, 1965: 6). Second, from this perspective, the shift from a customary to a statutory tenure system is but a relatively large, discrete jump within a broader, generally more incremental process of change.

Third, this in turn relates to a perspective that some might find surprising, namely that there is evidence to suggest that customary tenure can sometimes be more dynamic than statutory tenure because in effect the 'transactions costs' associated with changing customary rules are or can be less than those of effecting changes to a system through new or amended legislation, or by means of restructuring the land administration bureaucracy. Brokensha is one of the early exponents of this view; in looking at the impact of Kenya's massive titling programme, he observed that "land adjudication inevitably introduces finiteness and rigidity and thus harshly disrupts the old flexible system" (Brokensha, 1971: 3). This is one of the main reasons why "customary tenure" is such a misnomer, i.e. because it suggests a system that is static, which may well not be the case.

¹ For reasons that are unclear to the authors, the idea as summarised here is often attributed to Harold Demsetz based on his article entitled, "Toward a Theory of Property Rights", published two years later than the Boserup book quoted above.

3. Sources/causes of tenure insecurity, and evidence from South Africa

This brings us to a critical question: if tenure systems evolve in a manner that is generally appropriate to the local economic context, why would tenure insecurity ever exist? There are in fact numerous reasons, or perhaps more accurately, 'situations':

- Tenure insecurity of a tenant (or beneficial occupier) may be the preference of the landlord (or owner) (Huggins and Ochieng, 2005), presumably more so in a context where the system does not care to curb the power of the landlord.
- Discrimination (whether de jure or de facto) against specific categories of people, e.g. women or migrants, can mean that they are not accorded equal or secure tenure rights, ceteris paribus, or are not able to defend those rights, for example owing to a lack of social capital or weak land administration (Lovo, 2013).
- Failure to keep up with rapid socio-economic change just as in some cases sustainable agricultural intensification fails to keep up with rapid population growth, it may be that a tenure system fails to evolve quickly enough.
- Rapid urbanisation is often accommodated by the growth of informal settlements, whose residents often experience tenure insecurity, either because their presence is technically illegal (e.g. on public or private land), or because of the inadequacy of the land administration system (Payne and Durand-Lasserve, 2012).
- Large-scale conflict may leave tenure insecurity in its wake, whether due to massive population movements, or deterioration in the overall rule-of-law (van der Molen and Lemmen, 2004).
- 'Land grabbing', whether by foreign companies, local elites, or one's own government (Mushinge, 2015).
- Failure to maintain a functional land administration system, or to establish an effective land administrative system to support a new or changed tenure system, or the introduction of a tenure system that is out-of-sync with people's needs. A good example of the former was the outskirts of Maseru, Lesotho, in the 1990s, where the urbanisation over recent decades put pressure on urban plot holders to subdivide, and yet the land administration system was such that formal subdivision was so onerous that people tended to proceed with 'informal subdivision', meaning in effect that newly accommodated residents were extra-legal and thus insecure (Aliber, 2003). The classic example of the introduction of a system out-of-sync with people's needs is Kenya, wherein following the massive titling programme of the mid-20th century, it was found that most people were unaware of the importance of having title, such that records were rarely updated upon the death of the family member in whose name the title was written see e.g. Shipton, 1988 and Okoth-Ogendo, 1999). Similar evidence has been found in South Africa (Kingwill, 2014).

Speaking generally, tenure insecurity may be deliberate, in the sense that this is regarded as normal and acceptable by those who are responsible for making and keeping the rules of the tenure system (i.e. as is sometimes the case of tenancy, where there is the intrinsic possibility of a tension between the rights of the tenant and those of the landlord); or it may be because the rules are vague, inappropriate, or incomplete; or, again, the tenure insecurity may result from rules that are weakly or arbitrarily enforced or systems that are inefficient or opaque.

It is worth pausing to reflect on which of these situations, if any, applies to South Africa, in particular its former homeland areas. Arguably, the tenure situation in the former homelands has two main aspects: first, a vacuum regarding current tenure legislation combined with the fact that customary tenure was compromised in various ways by Apartheid; and second, the collapse of such land administration system as previously existed.

While it is generally acknowledged that tenure insecurity is difficult to measure ("Assessing the nature and scale of the problem is fraught with difficulties of definition as well as measurement," Payne and Durand-Lasserve, 2012: 2), there is some survey evidence from South Africa that is telling, albeit a bit dated. The two tables below speak specifically to black households' perceived tenure insecurity, which is of critical importance to the issue of intensive land use and investment; the tables report responses to the question, "Is your [land] access secure?", first in respect of the respondent household's main residential site, and then in respect of the household's fields.

Table 1: Perceived tenure security - main residential site

	Farm dwellers	Communal	Urban formal	Urban informal
Yes	64.8%	84.7%	77.2%	51.1%
No	35.2%	12.7%	18.0%	27.6%
Do not know	0.0%	2.6%	4.9%	21.3%
Total	100.0%	100.0%	100.0%	100.0%
n	307	537	181	212

Source: HSRC, 2005

Table 2: Perceived tenure security – fields*

	Farm dwellers	Communal	Urban formal	Urban informal
Yes	87.3%	95.7%	92.7%	100.0%
No	12.7%	4.1%	7.3%	0.0%
Do not know	0.0%	0.2%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%
n	10	234	16	5

Source: HSRC, 2005

While the share of communal area households describing the land access for their residential site as insecure, is low relative to the shares for farm dwellers and urban residents, it is still alarmingly high. (The fact that a higher proportion of communal area dwellers feel their tenure is secure than of urban formal residents, might appear quite surprising, however it underscores the fact that one cannot assume that statutory tenure is more secure than 'customary'.)

^{*}Note: these percentages are calculated only for those respondent households that have or access fields; note that except for communal area dwellers, these subsamples (n) are extremely small, thus the figures should be interpreted as order-of-magnitude estimates.

As for the perceived tenure security regarding cropping fields for communal area dwellers, the 96% reported in the table is more comforting, however it conceals an important aspect of rural tenure security that is quite important to this discussion. This has to do with the renting out of land, or lack thereof.

The argument briefly is as follows: in most rural communities, there are many people with fields who lack either the interest or ability to use them, but also those who would like to use more land than they presently 'own'; this would appear to present a case for exchanges, in particular rentals (i.e. temporary exchanges), but these are relatively uncommon in South Africa's communal areas because the pseudo-customary tenure systems in South Africa's former homeland areas do not condone land rental arrangements (HSRC, 2002). (According to the 2015 General Households Survey, of the 173 000 households growing grains in fields in the former homelands, less than 1% were doing so on rented land.) The reason is that, customarily, traditional authorities allocate land to community members based on need; renting out the land that has been allocated to one's family sends a clear signal that one does not need the land anymore, thus people are fearful of renting out their land for fear that it will be withdrawn by the traditional authority (HSRC, 2002; Kumar, 2005). Strictly speaking, this is not 'insecure tenure' in a general sense, but rather a bundle of rights that happens not to include the right to rent out. However, it can be perceived as insecurity in the sense that if one does choose to rent out, there is a sense of vulnerability. At the same time, those who rent other people's land, do so at considerable risk, i.e. they have a rental contract (usually verbal) which is very fragile and cannot be defended, because they were not meant to be engaged in such a practice anyway. Anecdotal evidence from Limpopo, KwaZulu-Natal and Eastern Cape suggests that this phenomenon is very real, especially in that the renter stands a good chance of losing out; the prototypical story is that the renter plants a crop, only to find that the land owner cancels the agreement as harvest time approaches (see e.g. Aliber et al., 2013: 123).

Thomson (1996) conducted action research in former KwaZulu where he dramatically illustrated how this tenure insecurity could be resolved and thereby promote productive land use. The initiative involved a consultative process through which he and partners sensitised traditional leaders and community members to the possible advantages of land rental arrangements. Despite the supposedly taboo nature of land rentals, Thomson found that traditional leaders were very easily convinced to accept land rental arrangements and to recognise a simple pro forma land rental agreement. This would appear to represent an example wherein the tenure system had failed to evolve in a manner appropriate to new economic realities, in this case wide-scale land under-utilisation, in which context the prohibition against renting land made little sense.

4. Formalisation of land rights

The deliberate improvement or strengthening of land tenure is most commonly taken to mean *formalisation*, and 'formalisation' involves formal registration and issuance of titles to persons in possession of land-based assets which are ostensibly unsubstantiated and relatively in insecure states (Bromley, 2008). Many sources refer to 'registration and titling' as the leading forms of formalising land ownership (e.g. Pacheo *et al.* 2015; Domeher and Abdulai, 2012; Grimm and Lesorogol, 2012; Benjaminsen, Holden, Lund and Sjaastad, 2008; Sjaastad and Cousin, 2008; Do and Iyer, 2008; Bromley, 2008; Jacoby and Minten, 2007;

Broegaard, 2005; Deininger and Jin, 2006; Larson, 2003; Brasselle, Gaspart and Platteau, 2002). "There must be tangible empirical evidence that distinguishes the fact of ownership from the fact of possession. One possible piece of evidence is a title, and a title is a 'promissory note' issued by a government indicating that it stands ready to protect the title holder (property owner) against the predatory actions of others" (Bromley, 2008). Formalisation/titling is often part and parcel of introducing statutory tenure, i.e. passing enabling legislation to provide for titled property, or to extend the geographical area in which titled property is possible. Titling programmes also typically involve some kind of demarcation process, whereby property boundaries are surveyed and captured in some fashion.

Broegaard (2005) expressed the long-standing arguments about land titling being a key requirement to moderate or eliminate ambiguities in land ownership; to support land titling, the author cited three of its projected benefits:

- Title offers a clear distinction and clarification of demarcated properties/physical boundaries and related property rights.
- Supplementary information on property issues becomes more available for holders.
- It allows legal institutions (title-issuing entities) to effectively carry out their duties of enforcing property rights.

It could therefore be maintained that formalisation (registration and titling) of property rights is significant, particularly, "where indigenous tenure systems are weak or absent, return on investment in land is high, and/or collateralized lending has taken hold" (Jacoby et al., 2007).

As indicated below, there is a vast literature on whether or not formalisation leads to more investment and therefore more production, especially in the context of agriculture. One of the main reasons why this literature has not been more unambiguous as to the salutary effects of formalisation programmes is because it is not necessarily true that formalisation implies a higher degree of (perceived) tenure security. There are two main reasons why not. The first reason, as already mentioned, is that if registration is backed up by a weak and/or corrupt land administration, it can serve to confuse or weaken tenure security, especially among those who are less capable of navigating the bureaucracy. In their study of the impact of HIV/AIDS on tenure security in Kenya, Aliber *et al.* (2004) found that, in this country with the most sweeping demarcation and titling programme in Sub-Saharan Africa, the introduction of statutory tenure on top of customary tenure was highly problematic:

"Notwithstanding the common perception that the statutory tenure system is superfluous in an area where customary tenure norms are so strong, it is clear that the function of the state's land administration system is in fact of enormous importance.... Unfortunately, the importance of the system is mainly honoured in the breach; people recognise the importance of the formal systems, but struggle to access them or complain that they have been corrupted to their disadvantage." (Aliber *et al.*, 2004: 136)

In the words of one respondent:

"'What I can say is that I need a title deed so that I can own land legally, but I don't know how since there are so many doors there.... I am afraid of many doors and that is why I have given up.'" (Aliber et al., 2004: 119)

The danger of imposing titles on households or communities who may not see the value in it, or where the land administration system cannot cope at scale, is one reason for the debate about systematic versus sporadic/demand-led demarcation. The unit costs of systematic demarcation are lower, however sporadic/demand-led demarcation focuses on those households that actually want to be registered, thus there is less danger of land records becoming quickly out-of-date.

The second main reason why formalisation does not necessarily have the effect of strengthening tenure, is that titling programmes usually require a simplification of status quo rights over land, which in effect means that some people's rights are promoted at the expense of others'. The prototypical situation is whereby one household may be regarded as the primary rights holder over, say, a field, but other households may have conditional usufruct rights to that land, for instance to graze their stock there during the off-season. In the course of titling, the tendency in the past is to fail to acknowledge the latter rights — especially because the title is modelled on a Western-style freehold — which in effect means that they have been cancelled (Meinzen-Dick and Mwangi, 2008).²

In Paper 5 a further set of reasons is offered, viz. that unequal power and property relationships are also found within households and families, and thus some rights get elevated at the expense of others. The problem in fact replicates all the way from family level to neighbourhood, clan and traditional authority level (see Kingwill, 2014).

5. Tenure security, investment, and productivity

Secure property rights are believed to favour productive investments in land in various ways. First and foremost, it is believed that tenure security favours the *willingness* to invest, as in the quotes from Marshall and Boserup above; this rationale is sometimes referred to as the 'assurance effect'. Second, it is believe that tenure security – in particular in the form of a registered title – can enable or facilitate access to credit (i.e. because one collateralises the property), which can be used for investment into the productive capacity of the property. These two are the most commonly cited links between tenure security and investment (Carter and Olinto, 2003). However, there is also a third, in that tenure security is often associated with tradability, which in turn implies at least the possibility of allocative efficiency, i.e. land will tend to shift to those most prepared to use it, which further suggests a link to more investment and production (see e.g. Deininger and Chamorro, 2004). This section examines the evidence regarding these alleged relationships.

² While there is no disagreement that this is a real consequence of formalisation in most situations, there is an argument that the Boserupian-style evolution of tenure systems tends to have the effect of eroding 'secondary' rights.

³ Greater tenure security favours greater tradability, especially if the greater tenure security is due to formalisation, because formalisation usually brings with it procedures for formalising exchange. However, even in the absence of formalisation, there is potentially a relationship between tenure security and tradability, as in the example above regarding rental arrangements (or lack thereof) in South Africa's former homeland areas. The other rationale for considering the link between stronger tenure and tradability is that "improvements made through investment can be better realized, thereby increasing its expected return" (Brasselle *et al.*, 2002: 374).

But first, what do we consider as an investment? "Investment means every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk. Forms that an investment may take include: an enterprise; shares, stock, and other forms of equity participation in an enterprise; bonds, debentures, other debt instruments, and loans; futures, options, and other derivatives; turnkey, construction, management, production, concession, revenue-sharing, and other similar contracts; intellectual property rights; licenses, authorizations, permits, and similar rights conferred pursuant to domestic law; and other tangible or intangible, movable or immovable property, and related property rights, such as leases, mortgages, liens, and pledges" (Malik, 2008).

In agriculture, investments may include the planting of trees or hedges, the building of antierosive barriers or terraces, the installation of irrigation and/or drainage systems, the erection of structures for storage and/or agro-processing, the erection of fencing and/or walls, the building of access roads, the removal of stumps or stones, etc. (Grim *et al.* 2012; Place, 2009; Deininger and Ali, 2008; Deininger and Jin, 2006; Brasselle *et al.* 2002; Place & Otsuka, 2001; Platteau 1996; Bruce and Migot-Adholla 1994; Migot-Adholla, Place and Olouch-Kosura, 1994).

Empirical tests of the relationship between tenure security and investment/productivity tend to take one of two main forms. In the one, a survey is conducted of farmers within an area and the extent of their land rights are somehow measured, for example by counting the number of rights they have in their bundle (and the perceived duration of these rights), and this is one explanatory variable among others in relation to dependent variables such as investment and productivity. In other words, this approach draws on the fact that even farmers in the same area may differ in terms of their actual or perceived tenure security. The other main approach seeks to employ a quasi-experimental design wherein one compares farmers in an area undergoing some form of formalisation (as explained more in the following section), with farmers in other areas (i.e. in the same country and preferably somewhat similar context) not undergoing formalisation.

Grimm et al.'s (2012) review of research on African countries (which covered e.g. Migot-Adholla et al., 1994; Bruce and Migot-Adholla, 1994; Carter et al., 1994), concluded that the relationship between formalisation and investment/production is at best weak. They held that evidence from studies suggested that the expected increases in tenure security, access to credit, investment in agricultural inputs, and improvement in crop yields after land privatisation had not occurred in Africa.

Deininger and Jin (2006), citing a number of studies (Besley, 1995; Sjaastad and Bromley, 1997; Atwood, 1990; Carter and Wiebe, 1990; Migot-Adholla, 1993; Migot-Adholla *et al.*, 1994; Gray and Kevane, 2001; Place and Otsuka, 2001; Brasselle *et al.*, 2002; Li, Rozelle and Brandt, 1998; Kung, 2000, 2002), drew out similar inferences:

- Tenure security (possession of formal title) was found to have minimal or no impact on credit access or investment and subsequent farm revenue.
- The African scenario presents situations where investments are undertaken by individuals/households for the primary aim of establishing more secure rights to land

as there has been reported cases of investments being undertaken "to enhance tenure security rather than as a response to higher levels of tenure security; for example, tree planting is a well-recognized method of enhancing tenure security for holders of temporary or fragile claims"; "That African farmers make investments to enhance their tenure security is an indisputable fact that makes room for the possibility of higher investment incentives under an indigenous tenure system than under the freehold regime" (Sjaastad and Bromley, 1997).

Deininger and Jin (2006) conclude: "This, together with the finding of a statistically significant but quantitatively small impact of higher levels of tenure security by a number of studies from China has led observers to conclude that interventions to improve tenure security may be misguided or of little empirical relevance".

To clarify a bit, one of the reasons for this conclusion is the important finding that the direction of causality can run the other way, i.e. not only from tenure security to investment, but from investment to tenure security. In conceptual terms, this is a different form of endogeneity than the one Boserup wrote about. Boserup mentioned endogeneity whereby the (collective) felt need for more tenure security inspires modifications of the tenure system to allow stronger, often more individualised rights. However, to the extent farmers plant trees or hedges as a means of fortifying their claim to a piece of land, then it means that increased investment can also lead to an increase in tenure security (Braselle *et al.*, 2002). This complicates the econometric measurement of the test for the impact of tenure security on investment.

Migot-Adholla *et al.* (1994a and 1994b) found land rights variables to be statistically insignificant; they surmised that tenure security (possession of a title) does not appear to be beneficial to farmers in terms of access to credit and yield increase: "Little evidence was found that land tenure insecurity has contributed to agricultural inefficiency; therefore, any program that would alter property rights in land is likely to increase farm output only modestly, if at all".

Quoting Bruce *et al.* (1994), "security of tenure is a multifaceted concept, not easily operationalized and development professionals must use it with far more care than they have done so far; security of title whether defined in terms of low risk of loss of access or of robustness of rights and alienability, does not by itself result in greater investment or productivity. Its effects may be entirely insignificant if farmers are overwhelmed by other risks and disincentives, such as frequent drought, or if the economic environment is otherwise stagnant". This buttresses Domeher *et al.*'s (2012) claims that farmers' willingness to invest does not solely rest on 'tenure security' but on several other significant factors; as such, these factors should be considered when measuring the effect(s) of tenure security on investments.

Carter *et al.* (1994) offer similar reasoning: "Investigations offer only mixed support for the general hypothesis that tenure security in the form of a title induces farmers to apply inputs more intensively and generate greater levels of output and net returns per acre. Tenure security may indeed provide such incentives, but this appears to be confounded by other factors that have not yet been formally incorporated [into our models]".

Domeher et al. (2012) go further to suggest that this is not merely a statistical challenge, but part of the reality of farmers in many countries, i.e. that there are numerous other critical factors required to stimulate willingness to invest in agriculture other than tenure security, particularly in Africa where the production environment is often so problematic. While tenure security may indeed be important, stronger tenure security on its own cannot be expected to promote agro-based investments; other critical factors include access: to agro-based infrastructure such as irrigation and storage facilities; to road transport networks; to electricity and telecommunications; and to input and output markets. These factors delineate the overall suitability and profitability of the agricultural investment environment which influences or stimulates farmers' willingness to increase their agricultural investments and productivity.

Fenske (2011) investigated existing studies on tenure security and investments to understand the reasons for the disparities in the empirical findings, most resulting in the 'insignificance' of tenure security on investment. He considered the probability of the effects of research methods and local contexts on these empirical findings and concluded that "studies with small sample sizes, those that use binary investment measures, and those that control for household fixed effects are less likely to find a statistically significant link between land tenure and investment". He also expressed the difficulties in carrying out econometric tests on the constructs as different structural models or approaches can alter the level of significance: "Investments that are either very common or very rare create several problems; excluding them can, for example, hide insecurity so severe that it has completely discouraged a particular investment. Lack of identifying variation in the dependent variable raises the standard errors, pushing results towards insignificance. The proportion of results correctly predicted becomes a poor measure of fit" (Fenske, 2011).

Brasselle et al. expressed similar concerns about the difficulty of measuring tenure security:

"The conventional way of measuring land tenure security is problematic. This is because the categories of rights used do not discriminate adequately between varying levels of security as actually experienced by people in societies pervaded by highly personalized networks of social relationships. As a consequence, standard empirical tests of the impact of land tenure security on investment incentives are likely to be deficient, which may account for the lack of assurance effect found in this and other studies despite its rather uncontroversial character from a theoretical standpoint. To improve on this situation, it is necessary to go beyond the veil of rather simple definitions of land rights to identify the social context in which they are embedded. This is bound to be a very arduous task involving the use of more complex methods than the standard household survey questionnaire commonly used by economists". (Brasselle *et al.*, 2002: 402)

Have economists overcome these methodological hurdles, i.e. to prove what most people regard as obvious? To some extent, yes. For example, Deininger *et al.* (2006) utilised a new data set to quantitatively explore the link between tenure security and productivity enhancing investments in Ethiopia and were able to reveal that the influence of tenure security on motivation to invest is dependent on the type of investment (varies by type of investment), its level of impact on productivity and how it can enhance security effects (properties): "Thus, even in situations where households undertake certain investments (e.g. tree planting) with

the express purpose of enhancing tenure security, it cannot be concluded that government interventions to better define and enforce land rights will be superfluous" (Deininger et al., 2006). In fact, Deininger et al. found that the impact of tenure security on investment was highly significant. The authors established that their use of subjective and objective indicators for tenure security and its distinction from transferability, the scope to distinguish different types of investment, and the ability to draw on a large and regionally varied sample, made it easier to empirically identify and measure tenure security effects.

Smith (2004) considered results of past researches on tenure security and fixed investment as "counter-intuitively ambiguous". Using Zambia as his area of study, his findings support the premise that tenure secured farms have larger investments than leased or untitled farms irrespective of the tenure arrangements, i.e. whether statutory or customary. Empirical findings in Uganda evidently demonstrated that, "Full land ownership, compared to mere occupancy rights, has a statistically significant and economically large effect on investment and productivity of land use; the predicted impact of shifting from occupancy to ownership is large; a doubling of soil conservation, and a five-fold increase in tree-investment, suggests considerable policy relevance" (Deininger et al., 2008).

The latest word on the empirical evidence for tenure security comes from the second main type of assessment, that is, the assessment of the impact of formalisation programmes. Lawry et al. (2016) performed a systematic review of 20 quantitative studies and 9 largely qualitative studies, having excluded 45 and 229 studies of each type, respectively, which did not meet their strict "substantive and methodological inclusion criteria" (Lawry et al., 2009: 6). Most of the remaining studies were published since 2005, which seems to reflect that they had tended to overcome some of the technical deficiencies of earlier studies.

Regarding the 20 quantitative studies,

"...the evidence suggests substantially beneficial effects on average from de jure recognition of tenure. The available evidence suggests that de jure recognition of tenure boosts productivity, as measured in terms of the monetary value of land productivity, by around 40 per cent on average.... This is a substantively huge effect, although this estimate masks substantial heterogeneity between Latin American and Asia where the measured productivity effects were strong and sub-Saharan Africa where they were positive but much weaker." (Lawry et al., 2009: 11)

However, "As far as mechanisms go, the available evidence provides little to indicate an operative causal pathway via the credit access effects, although there is some evidence to suggest an active pathway through tenure security and investment effects" (Lawry *et al.*, 2009: 11).

As for the qualitative studies, the findings are equally interesting, but also complex. First, the studies shed light on whether formalisation results in an improvement in perceived tenure security:

"On perceived tenure insecurity, Lesorogol (2005) found positive views of increased security, as did Chilundo *et al.* (2005) (Mozambique), who examined household and community effects of land registration in two Mozambican provinces and found that

increased security was perceived against attempts by outsiders to acquire local land. In contrast, however, Besteman (1990) found that farmers in Somalia felt that the threat of losing land to outsiders would increase over time due to corruption associated with, and inaccessibility of, non-transparent land registration processes. Burgi (2008) (Ghana) found that while some respondents indicated titling alleviates the possibility of others claiming rights over one's land, most preferred the lack of 'restrictions' on where one farms in customary tenure systems. As noted above, Teklu (2005) found cultural norms led to feelings of tenure insecurity in women in Ethiopia." (Lawry et al., 2009: 15)

Furthermore, regarding "investment, long-term production, leasing out land and consumption, the qualitative literature reflected almost exclusively positive experiences", however out of the 9 studies examined they also acknowledge that "We identified two examples of perverse productivity effects" (Lawry et al., 2009: 15).

Regarding the finding that secure tenure does not seem to have the effect of facilitating credit access, the reasons are not difficult to find. The reason for imagining that more secure tenure – or, to be more precise, formalised tenure – would facilitate credit access is simple enough: formalised tenure is essential to an active land market, which lenders would rely upon in the event they had to sequester a property that was put up as collateral for a loan which was not repaid. Therefore, in terms improving access to long-term loan finance in particular, tenure reform tends to be necessary; however, that does not mean it is sufficient. It is well possible for statutory tenure to be created without banks responding; one reason may be that the tenure reform for some reason does not contribute to a more active land market; a second reason is that a tenure reform may look fine on paper, but not be backed up by an effective land administration system; a third reason may simply be the absence of dynamic lending institutions; and a fourth may be a lack of demand for credit (SACAU, 2011).

6. Rental and sales markets

Most of the evidence discussed in the preceding section related to the effect of improved tenure security on rights holders' willingness to invest and consequent productivity gains. However, another reason for supposing that improved tenure security could stimulate agricultural development is that it would strengthen the operation of land markets, which in principle would tend to allocate land to its most productive use. This section summarises the evidence regarding this claim.

This evidence comes in various forms. However, given that this question tends to suggest a longer-term perspective on the benefits of improving tenure security, some of the more compelling evidence comes in the form of site or even country comparisons. For instance, Pinckney and Kimuyu (1994) surveyed and re-surveyed two coffee growing communities over a period of two years, of which one was in Kenya and the other in Tanzania. The communities were similar, in that they consisted of similar entrepreneurial ethnic groups (Kikuyus in Kenya and Chaggas in Tanzania), had patrilineal inheritance systems, and were alike in terms of agroecological features and average household size. However, the land in the Kenyan community had been individually titled some years before, whereas this was not the case in the Tanzanian context. What is important for our discussion here is that the percentage of local land

purchased – measured as a percentage of the land held by households at independence – was 8% to 9% at both sites; nor did the sites differ in terms of degree of land concentration. The one difference that was observed, however, is that in Kenya it was observed that there was a more active market for urban sites, and for land formerly owned by European settlers, both of which were at a distance from the actual research site.

In a similar vein, Wayumba examined three different groups within Kenya whose tenure systems had been treated differently by colonial and post-colonial authorities, namely individual, group ranch and Trust Land systems. In short, despite the fact that in principle these systems would be expected to operate quite differently, these differences were minor, or could be attributed to culture: "in each of the systems, some people have retained aspects of communal tenure while others have accepted exclusivity and, or, the ability to sell land" (Wayumba, 2014: v).

Soludo (2000) distinguished three types of countries: those that allow the acquisition of individual title, those that recognise different types of tenure, and countries in which land title is vested in the state. Through secondary data, Soludo determined that there is no discernible difference in the extent or efficiency of land market activity. Countries allowing for individual title frequently have the problem of inefficient land administration systems, which make title registration and exchange time-consuming and tedious.

Trebilcock and Veel (2008) summarise as follows:

With respect to the alienability of land, it is by no means clear that a formal property regime is necessary for the development of an active land market. Some authors have argued that market-type mechanisms have developed in customary law, especially where the efficiency gains from those mechanisms are highest, i.e., where land is relatively scarce. Indeed, extreme scarcity may result in the development of informal land markets even where market transactions are illegal, such as in Rwanda. If active land markets develop endogenously in response to economic incentives, this implies that a formal property rights regime is not necessarily a precondition to the development of an efficient land market. While some authors have contended that market transfers will be inhibited without the certainty made available by formal title, in some circumstances customs have emerged which can, at least partially, substitute for formal title in creating that certainty. (Trebilcock and Veel, 2008: 419)

Thus the evidence regarding whether formalisation promotes rural land market activity is not very compelling. Having said that, Deininger *et al.*'s (2008) study of Ethiopia found that the certification programme did have a positive discernible impact on rental market participation, among other indicators; what was especially encouraging about the Ethiopian example is that the certification process was unusually inexpensive. On the other hand, Holden and Otsuka suggest that, "The strong observed effects in Ethiopia are likely to be due to high tenure insecurity invoked by the previous radical land reform, with weak user rights and frequent land redistributions" (Holden and Otsuka, 2014: 93).

The second part of the question relates to whether greater land market activity results in desirable outcomes. Here, we rely at length on the useful synopsis provided by Holden and Otsuka regarding rental markets, and then sales markets:

"Do rural land rental markets enhance land use efficiency? Studies in Ethiopia (Deininger et al., 2008; Ghebru and Holden, 2008; Holden and Bezabih, 2008; Kassie and Holden, 2008), Kenya (Yamano et al., 2008; Jin and Jayne, 2013) and Malawi (Lunduka et al., 2008) demonstrate that land rental markets improve allocative efficiency by equalizing factor ratios among farm households, such that households rich in non-land resource endowments rent land from households that are poor in non-land resource endowments relative to their land endowments....

"Do land rental markets improve access to land for land-poor households? Studies in Kenya (Yamano et al., 2008), Malawi (Lunduka et al., 2008) and Uganda (Deininger and Mpuga, 2008) indicate that informal land rental markets reallocate land from land-rich to land-poor households. Such reallocation implies enhanced equity in land access and efficiency in land use, as long as there is an inverse relationship between farm size and productivity....

"Do land sales markets lead to landlessness and concentration of land in the hands of the wealthy? Only a few studies have investigated this issue. Deininger and Mpuga (2008) use data from Uganda in the 1990s and find that land sales markets have contributed to a slightly more egalitarian land ownership distribution. Another study in Kenya with data from 2001 to 2005 (Yamano et al., 2008) find that it is particularly land-poor households that buy land; thus, a concentration of land in the hands of the land-rich was not observed." (Holden and Otsuka, 2014: 91)

7. The broader economic importance of tenure security

Apart from the relatively narrow literature relating land tenure security to agricultural investment and production, there is also a broader literature examining the role of tenure security in economic development.

The impact of tenure insecurity as expressed by Durand-Lasserve (2006), ranges from the distortion of land prices and services, to undercutting long-term planning and investments; security of tenure has therefore been acknowledged as a critical tool for assuaging poverty as it is central to investments, wealth accumulation and empowerment of the poor and rural communities. Mooya and Cloete (2007) also emphasised the significance of secure property rights as stimulants for resource demand, investments, market promotion and enhanced asset values: tenure security is "...seen to be the sine qua non for the emergence and continued functioning of decentralised markets and the efficient use of resources".

Figure 1 below illustrates the multiple connections between secure property rights and economic development, based on various studies. The three outer circles towards the top have already been discussed above; however, the two outer circles towards the bottom are not as commonly discussed in the core literature examining the implications of tenure security for agricultural performance.

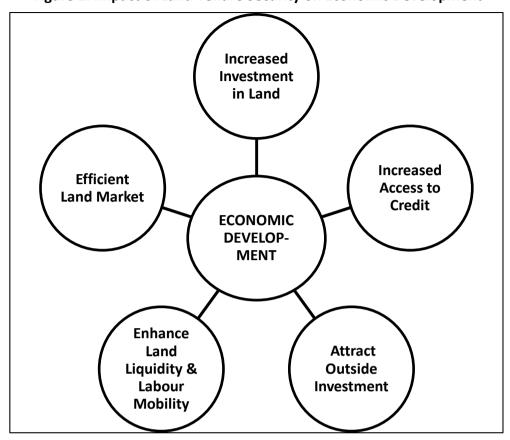


Figure 1: Impact of Land Tenure Security on Economic Development

"Land liquidity" refers to the ease with which a rights holder can rent out or sell land, thus it is of a piece with the idea of promoting efficiency in the land market. However, the emphasis here is not on nudging land towards its most efficient use, but on freeing up people who used to be 'tied' to the land; the notion here is that in the absence of land liquidity, some people who have land feel stuck because although they would prefer to pursue a livelihood outside of agriculture, land is their most important asset yet one that they cannot convert into new opportunities. This is why in this representation, land liquidity is combined with 'labour mobility'. Indeed in the literature, the concept of land liquidity is often discussed in the context of labour migration (e.g. Chernina *et al.*, 2014). The economic case for labour migration is a conventional economic argument of allocative efficiency, although from a South African perspective the social costs must also be acknowledged.

As for attracting outside investment, this was perhaps a less controversial advantage before the era of 'land grabbing'. However, attracting investment is a major concern for South Africa's former homelands; at present, virtually all of the renewably energy investments in the Eastern Cape are happening outside of its former homelands, precisely because investors find that establishing tenure security within the former homelands is prohibitively challenging (see below). Moreover, outside investment does not necessarily have to involve the acquisition of large tracts of land:

"...when smallholder tenure is secure, investors will be more likely to engage in joint ventures, contract farming, and agreements with cooperatives instead of just buying land.... This type of investment often has a substantially greater impact on local economic development and poverty reduction than large-scale land purchases." (USAID, 2013: 8)

Notwithstanding the challenges noted above regarding measuring the relationship between improved tenure security and agricultural investment/productivity, few would argue that improved tenure security would tend to operate as a facilitating factor within a broad process of multi-sector growth:

"These economic growth outcomes are... mutually reinforcing; growth in agricultural output and business growth depends on the existence of complementary institutions and public infrastructure, such as well-functioning credit, land, and labour markets as well as transportation infrastructure, electricity etc. At the macroeconomic level, land tenure and property rights interventions can thus have a direct effect on production (e.g. through long-term investment or expanded credit access) or an indirect effect by enabling roads and private and public investment in infrastructure that complements productive activity" (USAID, 2013: 3).

Figure 2 below, gives a detailed illustration of the significance of secure property rights on economic growth, as developed by Byamugisha (1999); the conceptual framework shows the existing relationship between land tenure security, financial development and economic growth.

LAND REGISTRATION Land titles and tenure security Efficient land markets Increased labor Creation of collateral value Reduced Greater Increased Greater mobility investment for land leading to greater ransaction costs in labor investment incentives credit supply land and credit mobility incentives markets Transformation of Enhanced cost and land into a liquid Greater Investment allocative efficiency Greater Investment asset in resource use Enhanced cost and allocative efficiency in resource use FINANCIAL DEVELOPMENT **ECONOMIC GROWTH**

Figure 2: Conceptual Framework of Land Registration, Financial Development and Economic Growth (Byamugisha, 1999)

Increased revenue (monetary and non-monetary) generation, decreased vulnerability, enhanced food security, increased welfare and sustainable use of natural resources are also potential benefits of tenure security on rural livelihoods; while the provision of additional support system such as infrastructures, services, public works, grants and subsidies by the government could relate to increase in production, markets, income, and connectivity between the rural and urban areas which could bring about economic growth and development (Adams *et al.*, 1999).

8. Tenure security and non-agricultural development

The focus of this paper thus far has been on the relationship between tenure security and agricultural development; however, tenure security is also an important consideration in respect of urban development generally, as well as commercial development and industrial development, specifically: "As the world becomes increasingly urbanized and industrialized,

issues of land tenure and property rights in the context of investments in transportation and utility infrastructure and residential and commercial building construction become increasingly important drivers of economic growth" (USAID, 2013: 4).

The principles according to which tenure security would favour urban/commercial/industrial development are generally the same as those which apply to agricultural land, i.e. the 'assurance effect', the ability to leverage credit ('collateralisation effect'), and the promotion of allocative efficiency ('realisability effect'). Curiously, however, there is far less written about the relationship of tenure security to non-agricultural development than to agricultural development.

Tenure-wise, urban areas have certain comparative advantages over rural areas. Sjaastad and Cousins (2008) for instance point out that land administration systems tend to function more effectively in urban than rural areas, and in part this is driven by need, i.e. because urban properties tend to be of greater market value per unit area, as well as by the easier access to the land administration bureaucracy. However, urban areas still experience tenure-related issues, insecurity inclusive.

Tenure insecurity is a perpetual challenge particularly for the poor living in the urban centres. Low-income families often settle in illegal or informal parts of cities where land ownership is imprecise and exposure to tenure insecurity and hazardous living conditions are high (Goebel, 2007; Toulmin, 2008; Boudreaux *et al.*, 2009). There tends to be a strong correlation between housing conditions, access to basic services, environmental issues, wellbeing and tenure status (Durand-Lasserve & Selod, 2007).

Urban development from another perspective can affect land security issues in rural areas, particularly as urban development 'encroaches' on rural land. The increased demand for rural land on which to undertake public projects such as construction of roads, bridges, pipelines and other developments, is obviously important for economic growth, but whether government exercises its power of eminent domain in such a manner that "informal land holders (individuals and communities) receive fair, prompt and adequate compensation for resources and livelihoods lost in such takings, and whether they provide for public consultation and due recourse" (USAID, 2013).

All things being equal, security of tenure can influence planning and regularisation of cities, allow the inclusion and integration of informal settlements into land markets, stimulate the equalisation of land prices, raise property value, encourage home investment, ease access to credit facilities, foster social stability, improve property assessments, and promote infrastructural and municipal service delivery (Urban LandMark, 2007; Lewis, 2008; Toulmin, 2008; Urban LandMark, 2010). "There is growing empirical evidence that giving legal recognition to informal property rights in urban areas brings positive results" (McAuslan, 2006).

The larger towns within South Africa's former homelands are generally either proclaimed towns in which freehold tenure prevails, or R293 townships in which plots are held under deeds of grant. Tenure security is not generally the issue in the sense of the 'assurance effect', however weak land administration is problematic in respect of both the collateralisation and

realisation effects; much of the property is in the hands of Public Works and its use is therefore not determined by market forces, and undeveloped land is difficult to acquire and develop in some instance because it is difficult for would-be developers to discover who the owners are (Pernegger and Godehard, 2007).

More challenging in respect of economic development are rural areas or smaller towns where 'communal' tenure prevails. The procedures for negotiating leases of communal land to allow for development of malls or wind farms can be protracted and complex. In Eastern Cape in recent years, the issue of wind farms has received much focus, in part in response to the Renewable Energy Independent Power Producer Procurement Programme (REIPPP). Much of the province has ideal conditions for wind turbines, however only two of the fourteen developments are east of Grahamstown (SAWEA, 2016). One of these two developments is Chaba Wind Farm in Great Kei Municipality, which came online in 2015. In an article seemingly meant to confuse, the CEO of InnoWind, the lead developer, is quoted as saying, "Despite the abundance of wind in this part of the Eastern Cape, which has access to the underused electricity grid and possesses sufficient roadworks, there is a lack of renewable developments," and then suggesting that Chaba represents a breakthrough because "InnoWind has managed to secure long-term land lease agreements with local communities, through the support of the Department of Rural Development and Land Reform, as well as the House of Traditional Leaders" (Engineering News, 2014). However, in reality Chaba is situated "on the edge of the former Transkei" (Engineering News, 2014), i.e. on a commercial farm.

The other east of Grahamstown is the so-called Wesley-Ciskei Wind Farm, due to be operational in 2018. The claim to fame of the project is that it will be, "A first for the REIPPPP as it is the only project to be awarded within the former Homelands – one of the most economically disadvantaged areas of RSA" (InnoWind 2015: 11). And this is true (thus confirming that Chaba is not within the former homelands), in the sense that the site is within the boundary commonly given for the Ciskei in later years. However, it would appear that some or all of the turbines will be placed on the land of "one of the few groups of black farmers who have historically held private land title within the Former Ciskei homeland" (InnoWind 2015: 12), who will become 5% shareholders.

The example is telling, because notwithstanding what appears to be a genuine wish to locate wind farms within former homeland areas, it would appear that atypical situations are sought out in order to avoid the problem of which everyone is aware, namely that the tenure and procedural issues are deterrents to economic investment in 'communal' areas. According to a 2014 article in *Business News*,

"Former homeland areas in the Eastern Cape's Transkei and Ciskei regions are gearing up, through the House of Traditional Leaders, to take on private farming enterprises for a share in the lucrative renewable energy market. The House of Traditional Leaders in the Eastern Cape has argued that the lack of investment in the former homelands is attributed to government's failure to effect a coherent land reform tenure policy that is in line with the national strategy, which will allow investment to flourish in impoverished communities."

According to the article, Abel Zingisa Bokwe, the chief executive of the Eastern Cape House of Traditional Leaders, in fact blamed not so much the bidding companies, as the Department of Energy, which feared getting embroiled in disputes between local residents on communal land.

Whatever the exact reasons for the lack of wind farm investment within the former homelands, and more particularly within the characteristic 'communal' tenure areas within the former homelands, the example is emblematic of the challenges that face non-agricultural development within these areas due to tenure issues.

9. Implications for South Africa's former homelands

South Africa's still extreme economic disparities can in large measure be mapped according to the boundaries of the former homelands. To what extent is this a function of differential tenure security? Or, perhaps more helpfully, how much difference would it make now if tenure security were improved?

It is impossible to answer this question except with very broad strokes and considerable speculation. A key consideration is timing: agriculture in the former homelands has collapsed to such an extent and starting such a long while ago, it is difficult to imagine that improved tenure security now would have a dramatic effect, possibly it would not even have a discernible one. The fact that perceived tenure insecurity over rural land, in particular over fields, appears fairly minor, means that resolving such insecurity as exists would not likely make a big difference.

Of course, in the presence of significant complementary programmes to promote agriculture, perhaps this would be different; but the plausibility of this happening on a large scale is another issue. Also worth considering is the possibility that greater tenure security now could lead to evident improvements in agricultural land use not in the near future but in the medium or long-term. One reason to suppose that this is indeed plausible is that South Africa has relatively little arable land, of which a reasonable but unclear share appears to be underutilised land in the former homelands; in other words, the scarcity value of this land is greater than local economic (in-)activity would suggest.

Where there is reason to suppose that improved tenure security might lead to a tangible change in the near-term, is in respect of land rental arrangements. This is true both in terms of rental arrangements involving local farmers seeking to rent from local land rights holders, and in terms of communities renting out to outside investors.

Of course, much depends on the manner in which tenure security would be changed. A shift towards, say, a tenure system that would allow individual households to sell land, would possibly have more dramatic effects, but probably in a very spatially differentiated manner. A logical prediction is that if it were possible to buy and sell residential sites, then there would be brisk business along the main corridors and on the periphery of towns, especially larger

towns.⁴ What the knock-on effects of this would be is difficult to say; it would merely facilitate a process that is happening already. The concern policy makers would have is presumably that some poor households would take the opportunity to render themselves homeless.

If it were rather only possible to buy and sell fields, then the result would probably be not very different to unlocking the land rental market. The downsides are difficult to imagine.

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⁴ Indeed, this is already happening in some areas, such as the along the R63 heading west from King William's Town, where middle-class households appear to be seeking to escape the onerous rates and taxes associated with living in town.

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The Research Project on Employment, Income Distribution and Inclusive Growth (REDI3x3) is a multi-year collaborative national research initiative. The project seeks to address South Africa's unemployment, inequality and poverty challenges.

It is aimed at deepening understanding of the dynamics of employment, incomes and economic growth trends, in particular by focusing on the interconnections between these three areas.

The project is designed to promote dialogue across disciplines and paradigms and to forge a stronger engagement between research and policy making. By generating an independent, rich and nuanced knowledge base and expert network, it intends to contribute to integrated and consistent policies and development strategies that will address these three critical problem areas effectively.

Collaboration with researchers at universities and research entities and fostering engagement between researchers and policymakers are key objectives of the initiative.

The project is based at SALDRU at the University of Cape Town and supported by the National Treasury.

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