



Briefing Paper

Property Rights and
Development:

Property Rights and Rural Household Welfare

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Executive summary

This Briefing Paper presents the debate on the impact of formalised land rights on rural household welfare through the vectors of increased investment, credit and efficiency, highlighting the impact on women's economic empowerment. At the request of DfID, the paper also considers the impact of land grabs/large-scale land acquisition on the security of land rights and the specific impact of active land markets on allocative efficiency. Drawing on this debate, it identifies key research questions and weighs up the evidence to answer these questions, discussing the nature of the evidence available and highlighting gaps in current evidence that need to be tackled through further research.

The paper focuses on Sub-Saharan Africa, mainly due to the large volume of the literature and the focus of the study's terms of reference. This also potentially provides opportunities for extrapolating experiences across different countries, as there are arguably more analogous conditions across some (although not all) African countries that share characteristics of a history of low pressure on land, and customary tenure systems, which cover a large proportion of land and privilege access on a basis of household need. These conditions differentiate discussions on property rights in Africa from experiences in Asia and Latin America where pressure on land has been higher and access to land more dependent upon hierarchical social relationships.

The review engages with several aspects of the conventional economic view of the causal links between strengthened property rights and household economic and welfare outcomes in the rural context.

Overall, the evidence reviewed does not fully support the expected outcomes of the conventional economic view on the link between stronger property rights and investment gains. Reasons for this include weaker associations between stronger land rights and incentives than postulated, or security of tenure may be unimportant compared to other constraints faced by rural households. Although findings from this literature review are weaker and more ambiguous than those of the recently completed systematic review (Hall et al., Forthcoming) these differences are largely explained differences in inclusion criteria of evidence for the two studies, as the systematic review includes studies from Asia and Latin America and excludes many of the studies reviewed by this study.

While present in some cases, links between reduced risk of expropriation and greater application of short and long term investments are not universal or unambiguously clear. There are numerous constraints preventing this causal link occurring, and there is some evidence of a reverse causal relationship: in some cases a greater risk of expropriation encourages certain types of investments.

There is little evidence of diversion of guard labour/capital away from protective functions to productive functions. While this change may occur as part of changes in household behaviour, it is not explicitly explored and proven in the literature.

The link between strengthening of tenure and increased access to credit is particularly weak, due to numerous other factors which prevent land from being successfully collateralised. These include issues related to credit supply, as well as borrowers' willingness to mortgage their major asset, land. The small body of literature which investigates access to credit therefore does not offer strong support for this link.

The evidence on the hypothesis that active land markets result from stronger property rights is mixed. There is some evidence which points to land markets leading to more efficient outcomes where these have not existed before (Ethiopia) but in the majority of cases, (informal) land markets are active under customary systems and there is little evidence to indicate that these are inefficient. There is also mixed evidence on whether active markets lead to socially equitable outcomes.

Whether titling or other tenure strengthening initiatives promise more benefits to women compared to existing tenure arrangements is highly context specific and depends on processes under which changes in tenure occur and are managed. The extent to which women's greater access to land leads to higher agricultural production also does not appear to be supported by the literature, and measurement issues make such assessments difficult.

In the literature on large-scale land acquisitions, the evidence indicates that land grabs have overwhelmingly occurred on land on which the rights of local users are not formally recognised. It is unclear from the small amount of available evidence whether formal recognition of local users' land rights offers more protection than where these are not formally recognised, although this is likely to be the case.

Several research gaps were identified in this study:

- First, more research is needed on how property strengthening initiatives can strengthen women's access to land, as this remains an area where there are mixed messages, and where impacts are not adequately disaggregated by status of women. Further evidence on how women's involvement in the processes of land strengthening activities is needed.
- Second, further evidence is needed on how formal recognition of customary rights can protect community lands from land grabs, whether this influences how land deals are carried out, and if this can generate positive social outcomes.
- Finally, while this study highlights the limitations of carrying out cross-contextual comparisons, efforts to aggregate findings from studies conducted in similar settings (e.g. at the regional or national), would be useful to assess where a strong relationship between strengthened property rights and investment has been demonstrated, and where it has not.

1 Background and objectives

This Briefing Paper aims to look at the state of evidence on the link between secure property rights and development in the case of rural households, with an emphasis on recent evidence in African countries, and identify where there are significant gaps that need to be plugged by further research. In line with DfID's definition of a Literature Review, this is designed to be a "review of main literature in the field including all major research studies".¹

This Briefing Paper forms part of a wider study commissioned by DfID to contribute to debates on the link between property rights and development in two principal arenas:

- The Golden Thread narrative of the UK government, which emphasises secure property rights as a key element of promoting economic growth and development: "A genuine golden thread would tie together economic, social and political progress in countries the world over... Only then will people escape the fear of seeing their homes bulldozed just because they don't have property rights." Such rights would be underpinned by mapping and formal cadastre systems "...using satellite photos to map plots of land that will facilitate the creation of property rights" (Cameron 2012).
- DfID country programmes on property rights, which have ranged from support to land administration systems to funding individual and community titling in different countries.

Underpinning this is a broad agreement that secure property rights are necessary for development, expressed in terms of equitable growth, household welfare, and social and political engagement. Implicit in such discussions is the view that private, individual tenure is the most appropriate form for guaranteeing security of property rights. However, others argue for promoting tenure security under different mechanisms rather than private land ownership. This is particularly the case in sub-Saharan Africa where forms of customary tenure emphasise membership of communities as the basis for access to land and therefore prioritise territorial control by collective units over private conceptions of property rights.

In parallel, there is a discussion on how the link between property rights and development is influenced by a range of other factors that may be equally, or more, important than property rights *per se*.

¹ Summary table of evidence products – DfID 2012

2 Approach and methodology

A team of five researchers carried out the overall literature review, with the support of a research assistant. A senior review team, comprising mainly external academics specialising in the themes covered in this study, provided input into the conceptualisation of the research questions and search strategy, suggested additional literature and reviewed the draft and final reports.

The general study looks at the role of property rights in promoting development in five areas agreed between DfID and ODI:

- Property rights and economic growth at a macro level
- Land property rights and rural household welfare
- Water rights and rural household welfare
- Property rights and urban household welfare
- Property rights and social, political and economic empowerment

The evidence assessed by the review team is presented for each theme in the form of a Briefing Paper, comprising:²

- Discussion of the conceptual framework, context and theory of change;
- Assessment of evidence for each research question; and
- Identification of research gaps.

Using DfID's theory of change framework (Vogel 2012), we look at the links for each component between property rights and development to: identify endpoint outcomes and how they would be measured; key determinants of such outcomes; and the central transmission mechanisms between secure property rights and each outcome.

In each theme, we define a set of research questions that help us to test the hypothesis presented in the theory of change. Identifying and assessing such evidence inevitably involves a discussion on the *form* that such property rights need to take and the influence of *other factors* on the link.

An important point of orientation for the study was DfID's Rapid Review on the "Golden Thread of International Development",³ which explores the evidence on different pathways to the triple objectives of growth, poverty reduction and civil liberties, and DfID's rapid review of the literature on property rights (Selvetti 2012).

2.1 Search strategy

The literature review combined three tracks of literature searches:

1. Bibliographic database search of academic databases and journals, using consistent search strings that have been tested beforehand and a set of inclusion criteria, and conducting forward and backward searches on key references. Three main databases were used for the search: Scopus, Google Scholar and Web of Science. These were

² In the case of the rural and urban household papers and the growth paper, an overview is provided drawing out common and contrasting findings.

³ DFID Research and Evidence Division: The research evidence relating to a "golden thread of international development": a rapid review (undated)

complemented by searches of key institutional databases, particularly World Bank, FAO Agris and DfID's R4D website.

2. Snowball technique of contacting experts in the field (see Annex 1) to ask them recommendations for important studies on the research question as well as insights into the key propositions.
3. Hand-searching specific websites for relevant studies using similar search terms as for the bibliographic databases.

The strategy focused on literature on Africa produced from 2000, using literature produced between 1990 and 2000 where recommended by the senior review team or where such references were frequently cited in the more recent literature. The search strategy focused on literature published mainly in peer review journals and principally in the English language, partly because of the way that the databases operate and partly due to the criteria in DfID's draft guidelines for assessing evidence quality.

Table 1 presents an example of the results of the search conducted through Scopus for the five themes covered. To these were added other references picked up in the search process. The review team then screened all references to identify the most relevant material.

Table 1: Studies downloaded from Scopus

Searches	Rural	Growth	Urban	Water	Social and Political Empowerment
Number of variations searched	16	12	5	12	8
Abstracts downloaded	86	50*	19	39	44
Titles forward/backwards searched	9	7	2	4	0
Full titles downloaded from Scopus	47	43	21	40	39

2.2 Derivation of the evidence base

In this section, we discuss the potential impact of the search strategy and evidence quality assessment criteria in deriving the evidence base that underpins the key finding of the Briefing Papers.

Issues raised by the search strategy

Although the strategy was designed to do a wide-ranging search and include as many relevant studies as possible, the results of the search process highlighted some potential bias towards particular types of studies and evidence, namely:

Literature published in journals

While efforts were made to include other types of papers, including working papers, conference papers and other reports, most of the papers selected and analysed were journal articles or working papers intended for publication, and excluded books (including edited volumes and monographs). This is due mainly to the greater visibility and accessibility of journal articles through database searches as they generally include full metadata which is picked up by search engines. Such articles are also more likely to be cited and referenced in other studies.

Explicitly empirical and economic-based papers

The explicit focus on 'evidence' in the review process is likely to have led to bias towards papers which emphasise their methodology or use of data. On the whole, papers from the economics discipline were more likely to include more details on their use of 'data' and 'evidence', although a loose application of search terms (i.e. relaxing use of 'data' or 'evidence' was consciously used in order to include other terms). As a result, perspectives from some disciplines are not fully represented, notably history, politics, anthropology, cultural studies and sociology.

Impact of the methodology to assess quality of evidence

The exclusion of particular types of evidence by the search strategy is compounded by the criteria for assessing the quality of the evidence that could be considered, provided in DfID's draft Guidelines (*Assessing the Quality of Social Science Research Evidence: Summary*).⁴ This emphasises measurement aspects of evidence, in the principles of validity and reliability, implying a preference for quantitative studies over qualitative studies using inductive methods.

Focus on particular types of evidence

In the context of research on property rights, the implicit preference for quantitative studies runs the risk of excluding a significant body of work relevant to the issue and providing only for a partial review of the evidence. The different standards of emphasis on, and transparency of, research design and methods in different disciplines may also mean that research produced by those disciplines that bring design and methodology to the fore are likely to be given higher quality scores.

An additional concern is that the inclusion of the number of studies as a factor in assessing the strength of the evidence may mean that the numbers can be influenced by concentrated research efforts in particular places run by particular research groups (for example, in the land case, highland Ethiopia by the World Bank/IFPRI). The contextual factors of the location and the wider issues of knowledge building that are associated with particular research efforts (which may have disciplinary or policy biases) are, as a result, downplayed.

Resource implications

The criteria provided in the summary guidelines could be seen as a first hurdle for most peer-reviewed articles to be accepted into a journal without distinguishing further between the quality of different articles. Publication in a peer-reviewed journal would normally be taken as a minimum threshold for quality assurance and has been used as such in this study.

If the peer review process is not seen to be adequate and further verification is deemed necessary, this implies that a much greater volume of resources would be needed as it can take a lot of time to delve deeply into the methodology of individual studies to assess how well they fulfil the different assessment criteria. For example, in the literature looking at the link between secure property rights and economic growth, there are articles published (and used in the literature review) that discuss in great depth a single parameter used in one model compared to another (e.g., the instrumental variable), an exercise that could not be reproduced with the scope of work and budget provided for the literature review. Indeed, a thorough assessment would imply verifying primary data, which is not always available, and again, would be extremely resource intensive for a wide-ranging literature review which uses broad inclusion criteria.

The guidelines appear to privilege experimental design but it can be difficult to work out, for example, whether a study was really quasi-experimental or whether it was intended to be an experimental design but was not done strictly according to criteria for

⁴ The review team were provided with draft guidelines by DfID, which are similar but not entirely equal to the recent guidelines published on DfID's webpage. The guidelines served as a filter for including only evidence that was of reasonably good quality and comparing contrasting evidence on different points.

this. There may also be academic disputes about whether conditions in the area of study created a natural experiment or not. Requiring the reviewer to make a judgement on the debates is time-consuming, and the reviewer may not be equipped to do this in the context of a broad literature review. This means that a very brief summary of the state of evidence is risky to apply; even classifying studies according to whether they are really experimental or quasi-experimental is challenging — without going back into the primary data, it is not really possible to make a robust assessment.

Issues of aggregation

Not all the principles of quality laid out in the guidelines establish an equal threshold for assessment (e.g., the criterion of acknowledging the existing body of research is much less rigorous and easier to meet than, for example, that of demonstrating measurement validity). This makes it difficult to aggregate all the principles into a single arrow or indicator of strength and quality of evidence.

The challenges of property rights as a research focus

In the case of property rights, the different dimensions and interpretations of property rights in the literature and the greater complexity relative to specific interventions, such as cash transfers, have made it difficult to tease out causality from statistical econometric analysis. Forms of property rights influence but do not necessarily determine real or perceived security of property, the effects of which may affect investment and innovation through perhaps four main paths, but which may equally engender all manner of other linkages within systems, some of which we may not appreciate, and which depend heavily on context (and it can be hard to define what elements of context matter most). Cross-country regression cannot deal fully with this, even if it can produce some indicative results. Qualitative analysis can provide additional insight into understanding the contexts that create the variegated patterns.

As such, it can be difficult to come to a firm conclusion about the overall strength of the evidence although we do make some comments on this during our analysis of the evidence. In the Briefing Papers, we have strived to make this as transparent as possible, highlighting and discussing the nature of the evidence, and trying to provide an informed sense of the broader pattern.

3 Land rights and rural household welfare - theoretical and conceptual issues

3.1 Defining secure property rights

“Property”

This review focuses on immobile, fixed assets, namely housing⁵ and land. It does not include discussions of intellectual property nor more sociological associations with belonging or a sense of connection to a place. It also does not include discussions around other, moveable types of assets, such as warehouse receipts, as this implies a much broader discussion of a different nature drawing on a different set of literature.

“Rights”

Our analysis takes a working definition of a property right as the control over assets and the “return to the assets that are produced and improved” (Rodrik 2000) or “residual rights⁶ of control (over assets)” (Grossman and Hart 1986; Segal and Whinstone 2010) rather than “ownership of assets”. This control can take various forms and is backed up by laws, regulations and policies or social norms — institutions — that define, negotiate, monitor and enforce property rights.

Rather than a single “right”, discussions of property rights often refer to “bundles” of inter-related rights (Everest-Phillips 2008; Besley and Ghatak 2009) which involve the right to use, sell, transfer/bequeath, allow use by others and restrict use by others. These rights can often overlap and be contested, as the right of one person to do something with an asset can have implications for someone else’s rights, actual or potential. In addition, rights are vested at different levels – individual, household, community – with different content of rights at these different levels (e.g. some individuals may be able to use a resource, or harvest natural resources, but not to transact or alienate a resource). Who holds the rights and how this is determined is a focus for the review, e.g. ‘owners’ versus ‘tenants’ and intra-household issues, eg. the rights of women to ‘family’ land.

“Security”

Broadly speaking, a property right is secure when the right holder perceives it to be stable and predictable over a reasonable period of time and protected from expropriation or arbitrary change, with claims that are backed up by some type of authority. Security typically implies the ability to appropriate benefits arising from a particular property right.

A dominant narrative from developed economies is that property rights need to be private and individual, expressed in a formal and legal form, backed up by the State (de Soto 2000). However, emphasis by international development institutions, informed by experiences of programmes and partnerships in developing countries, is increasingly on secure, equitable access to property under different legal systems and diverse national and local situations, looking at the legality and legitimacy of different institutional arrangements. It is more explicitly recognised that formal property rights underpinned by titling may be neither necessary nor sufficient to ensure security of rights, depending on how such rights are recognised and enforced in a particular context (Deininger 2003; EU 2004; DfID 2004). Formal property rights will not be effective if they do not confer

⁵ In much of the literature, housing refers to “house + land”.

⁶ Where the owner is entitled to the use and fruits of the asset except insofar as (s)he has contractually agreed to limits on those rights (say, by transferring them to others).

control rights; sufficiently strong control rights may serve the purpose even in the absence of formal property rights (Rodrik 2000).

Others see a “continuum” of tenure security, underpinned by a social tenure domain model – described as a “system where different sources of land access and use patterns co-exist, allows a diversity of tenure situations ranging from the most informal types of possession and use, to full ownership” (Global Land Tool Network 2012) where people should be able to move from one form of rights to another over a period of time.

However, even where economies are more developed, the view that that evolution from informal collective to formal individual rights is necessary or desirable is contested and it is argued that communal property rights can, under some circumstances, be superior (Platteau 1996, 2000).

3.2 Why formalised individual land rights may lead to increased investment, productivity and efficiency

There is a clear theoretical argument presented in the literature for why individual land rights should lead to optimal levels of investment from the user’s point of view, where markets function well. For rural households who engage in agriculture as a major livelihood activity, control rights which confer the power to make decisions over land should, in principle, lead to an optimal level of investment of their available capital and labour in their land. This, in turn, should lead to them attaining higher intermediate outcomes — namely agricultural productivity — and final outcomes, namely income and household welfare.

Brasselle, Gaspard, and Platteau (2002) provide a framework through which the causal chains between more secure property rights and agriculture-related investments can be traced. These correspond closely to the four channels in the Besley and Ghatak (2009, 2010) framework which are referred to in other papers in this collection. We combine these two approaches to frame the theory of change for the link between formalised property rights and greater investment. Under this approach, the links between more secure property rights and investment arise from the following effects:

- An ‘assurance’ or ‘security’ effect, through which farmers are incentivised to make greater investments as they have a higher level of confidence that they are protected against expropriation through secure, well-defined property rights and will be able to recoup the fruits of their labour. Having the right to transfer these rights may incentivise farmers to make further investments as they will be able to recoup these, or pass these on to the next generation or other inheritors. This is referred to as the ‘transactions facilitation’ channel in Besley and Ghatak (2010). Such security or assurance can lead to reduced protection costs as individuals can devote fewer resources to protecting their property and these resources can go to productive uses (the ‘protection’ function in Besley and Ghatak (2010)).
- A ‘realisation’ or ‘gains from trade’ effect, whereby the activation of land markets allows farmers with a comparative advantage in access to factor inputs to access sufficient land, thereby increasing their investment. This is the efficiency channel in Besley and Ghatak’s (2010) framework.
- A ‘collateralisation’ effect, whereby a credit-constrained farmer is able to mortgage land to borrow money. This may increase productivity along the lines delineated by de Soto (de Soto 2000).

Theory of change

Figure 1 illustrates these key causal links commonly hypothesised and presented in the literature in a Theory of Change diagram, which describes how an intervention may cause beneficial changes over time. The first row corresponds to potentially important contextual factors which may moderate the extent to which the causal links operate. For instance, higher pressure on land (from population density) may accentuate investments on existing farm plots, rather than expanding to new land. The second row refers to a range of interventions or changes through which rights over land are strengthened.⁷ Changes in attitudes which are important in altering behaviour are shown in the third row following the combined framework outlined in the previous section.

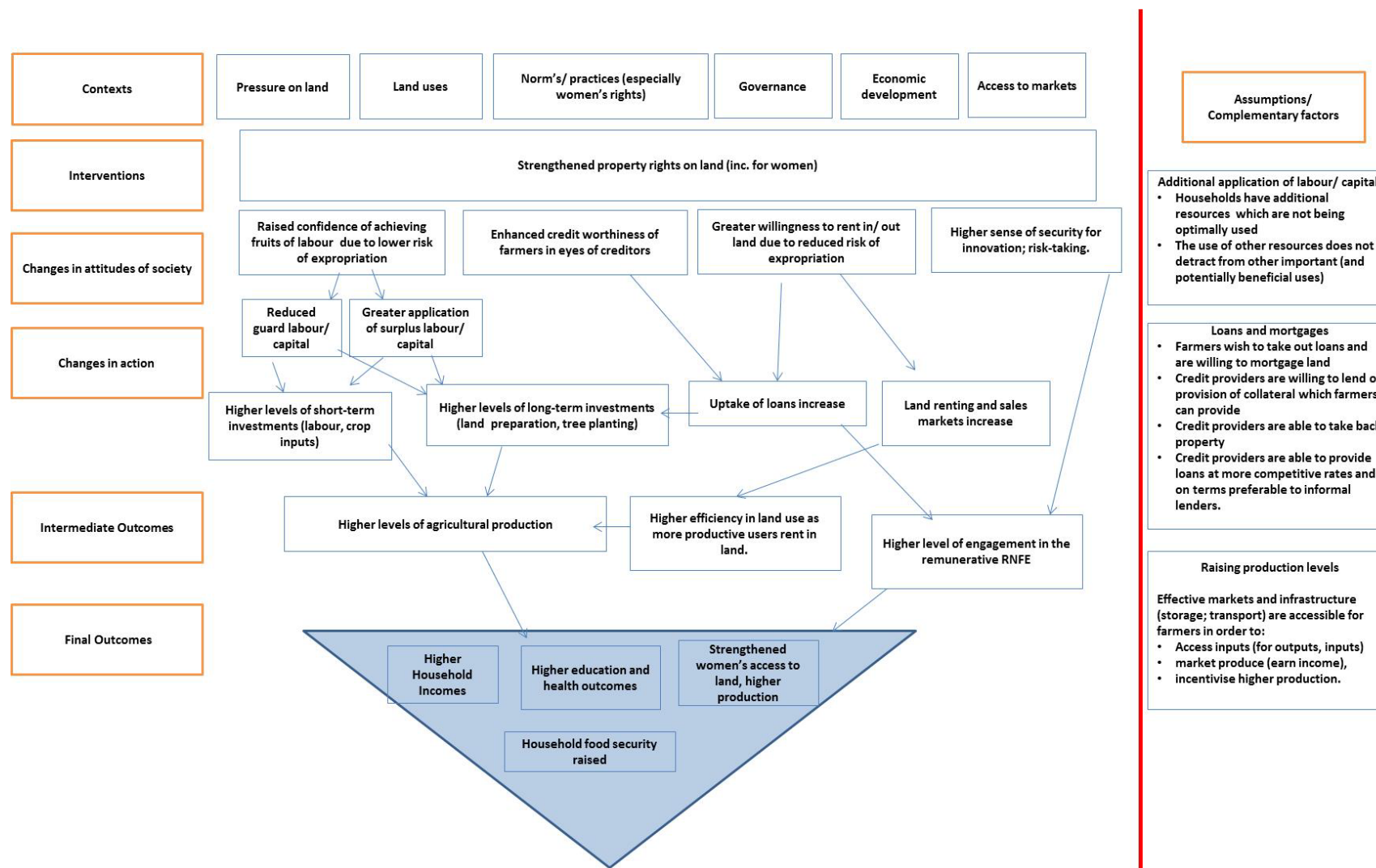
These changes in behaviour theoretically lead to changes in actions: farmers undertake higher short and long-term investments, and enter land markets (both selling and renting land). These changes in turn lead to higher intermediate outcomes, namely more efficient land use and raised agricultural productivity,⁸ which results in higher household welfare outcomes, given by higher incomes, food security and welfare outcomes.

In theory, this causal chain is also applicable specifically for cases when women's rights over land are strengthened. In this case, associated empowerment outcomes related to strengthened land rights may occur. Some theorise that this may also lead to higher additional household welfare outcomes (food security, education, health) due to greater spending by women in these areas.

⁷ Although individual titling interventions have been the most common form of tenure strengthening, there have been other initiatives which have strengthened tenure of customary rights. These include village councils (Tanzania) de facto recognition of customary rights (Mozambique), and land boards (Botswana). While these have attempted to strengthen security of tenure and may have reduced conflict or dispossession, they have not aimed at, or been associated with, higher levels of investment.

⁸ Better land management (less soil erosion, improved water use) may be other important outcomes in some contexts. These are not explicitly explored here.

Figure 1: Theory of Change for Rural Households



3.3 Why this might not always be the case

In practice, however, there may be a several reasons why the provision of strengthened individual rights to make decisions over land is neither necessary nor sufficient to encourage further investment. Existing tenure systems have often provided sufficient security for farmers to invest and for land markets to be active, although sustained ability to provide this may change under external pressure⁹. These points were among the findings of studies from the early 1990s, and more recent literature reviews (Braselle et al 2002; Deininger and Ayalew Ali, 2007; Place 2009; Fenske 2011). In addition, the relationship may not always work in one direction: investment may improve security of tenure in the absence of formal rights (Braselle et al 2002).

There is also an argument that more active land markets can lead to dispossession and limit access to land by poorer households (Vendryes 2011):

- First, encouraging land sales may lead to distress sales as households who experience production shocks (such as droughts or crop failures) or health shocks (e.g. sickness or death of a family member) sell off their land as a coping strategy. When the shock affects a large part of the community (i.e. it is a covariate shock) and many households sell their land, sale values received may be low. At the same time, richer households may be protected from these effects because they have better access to insurance mechanisms (Baland et al. 1999).
- Second, when land is placed on an open market and available for general purchase, its price may exceed what local land-poor households can afford, exacerbating existing inequality of distribution (Deininger and Feder 2001).

3.4 Formal, individual title and women's access to land

The literature on whether formal individual title improves or worsens women's access to land includes a range of different positions because different authors look at different groups of women (e.g. female headed households, unmarried women etc), and because of the ways that women access land through social relations in different contexts.

Some authors argue that individual property rights improve women's access, as customary systems are patriarchal and exclusionary.

However, others argue that access depends on specific contexts, including the nature of the 'conjugal bargain' or particular household and village characteristics, and that the distinction between formal and informal rights is not important. They argue that women's access to land is often highly dependent on the specific institutions of inheritance, marriage and community authorities. Women may gain substantial land access without formal rights in situations where husbands are absent, where polygamous households and large clustered household arrangements operate or where there are matriarchal arrangements for inheritance and residence. On the other hand, formal rights may not confer additional *de facto* rights to women as processes of strengthening rights (e.g. through demarcating or registering land) may be captured by men, and women's access may remain the same, or may be reduced as a result of legal changes.

⁹ Changes in pressures on land from growing commercialisation and population also may increase pressure on customary systems from both internal and external sources (e.g. from State's reasserting claim to rights to land)

Research questions

Based on the discussion of the debates around land rights and household welfare, as well as specific requests from DfID and the derived theory of change, this Briefing Paper reviews the evidence in relation to four main questions and related subquestions:¹⁰

1. Does the evidence confirm that stronger property rights automatically lead to higher levels of investment? If not, which other key factors determine productive investment?
 - i. Does the evidence indicate that private, formal, property rights (alone) encourage increased productive investments on land by households or can other forms of rights provide similar incentives to invest?
 - ii. Does the evidence confirm that 'free, open' land markets increase inter-household land transfers, leading to allocative efficiency and greater productivity or do they act to promote social and economic differentiation and dispossession?
 - iii. What is the evidence to support the hypothesis that stronger property rights lead to a reallocation of factors of production from guard to productive functions in reality?
 - iv. Does the evidence indicate that stronger property rights lead to enhanced access to credit for rural households through use of land as collateral or are other characteristics of the financial market and households more important?
2. What evidence is there to show that individual, private tenure is necessary or sufficient for securing women's economic empowerment and their access to goods and services?
3. What is the evidence from the emerging body of literature on the susceptibility of land held under different tenure systems to land grabs?

An additional question was originally formulated on the impacts of stronger property rights on household welfare benefits (health, education, fertility, food security) that occurred through channels other than raised income. However, such limited evidence (1 study in the African literature) was found for this that this question was dropped.

It is also important to note that the questions do not strongly emphasise the protective function of property rights, i.e., whether certain types of property rights offer a high level of protection against expropriation. This has not been a major research interest in most of the literature due to the low incidence of unsanctioned large-scale "land grabbing" in areas under study. However this has been highlighted as an important area of concern given the increase in land grabbing in recent years, and the importance of secure property rights to protect against expropriation should be emphasised as an area for policy attention, despite its low profile in the analysis.

¹⁰ There are important extensions to the questions posed here which are commonly debated in the literature, but which are not directly addressed here. These include whether there is greater individualisation of rights which occurs due to greater demographic and commercial pressure on land (the 'evolutionary' theory). (Colin and Woodhouse 2010)

4 Evidence on each research question

4.1 General characteristics of the evidence

This briefing paper looks at a broad set of questions, and relevant evidence for each question is discussed under separate sections. This section provides a broad overview of the general characteristics of the evidence on property rights in rural areas reviewed.

Economics-based studies

Although the theoretical importance of property rights has a long history within economics, it is only relatively recently that researchers have attempted to test its importance empirically in developing countries (including in Africa), with much of the literature appearing in the 1990s and thereafter. Although there were studies pre-dating this period which looked at the impacts of specific titling interventions, the World Bank and Land Tenure Center studies (Barrows and Roth, 1989; Bruce and Migot-Adholla, 1994) which analysed several countries using a similar methodology and appropriate econometric techniques were the first systematic attempt to identify differences in impact between customary and state title systems, and their findings propelled further investigation of the issue. Since then, numerous studies have aimed to measure discernible impacts between differences in tenure systems using explicitly empirical and econometric designs and techniques. These studies' primary research interests mainly focused on investment and adoption of technology packages and functioning of land markets. Within these, there have been a number of approaches and designs used, in recognition of the heterogeneity of contexts and the potential range of impacts or pathways to explore. Most of these (rural) studies have not been impact analyses but have studied the differential impacts of tenure systems at one point in time using observational and recall data¹¹. Some of these studies have focused on specific interventions, whereas others have looked at differences in property rights in existing societal arrangements.

An important subset of the evidence concerns the success and impact of titling programmes. The body of evidence on the success of titling programmes is small, and does not include studies with strict experimental designs. In general, there is a lack of reliable evidence on the impact of titling programmes. Conning and Deb (2008: 2) in a guide on impact evaluation for titling schemes (both urban and rural), note that there has been "no completed impact evaluation study on a land reform intervention using a rigorous study design built into the program design where comprehensive measurement and appropriate, modern statistical methods were used".¹² They also note that "almost all existing studies to date have been based on observational data where reliable comparison groups for those receiving the programme treatment are difficult to identify because of non-random program placement and self-selected beneficiary households" (pg. 4).

Limited coverage of populations and countries within studies

Due to the methodological challenges in capturing the effects strengthened tenure (in isolation) most studies have tended to focus on small areas (Deininger and Jin, 2006).¹³ To test hypotheses on tenure, some have explicitly sought out areas where there are perceivable differences in tenure between contiguous or adjacent populations and there

¹¹ Identified exceptions include Ali, Dercon and Gautam (2011) and Deininger, Ali and Alemu (2008) (both from Ethiopia) which use panel (repeated sampling) data

¹² One impact evaluation since then (on an urban titling programme in Mongolia) is known to be underway.

¹³ Several studies based on national scale data do exist (e.g. Uganda, Petracco and Pender 2008; Rwanda, Ali, Deininger, Goldstein 2011) but these are a minority

are high population or commercial crop pressures, leading to strong exogenous reasons to invest (e.g. Firmin-Sellers and Sellers 1999). These choices of research focus and methodology are necessary to accurately measure the effects of tenure in isolation (minimising chances of unobserved heterogeneity and differences over time) and provide a chance to study effects at a level of detail that cross-country studies cannot (Pande and Udry 2005). However, they have implications for how findings are generalised. On the one hand, it can be argued that the selection of atypical situations does not reflect the reality in which many populations live in Africa.¹⁴ On the other hand, if findings in these studied areas do not point to an important impact of differences in tenure security or property rights, it is unlikely that effects of these will be important elsewhere.

Most studies do not attempt to disaggregate units past the household level, and do not investigate or differentiate findings by other household characteristics e.g. by ethnicity, age, status. There are exceptions to this, most prominent in the literature looking at whether titling or other property strengthening initiatives improve women's livelihoods (e.g. Quisimbing et al 1999).

Methodological issues in studies

A review by Fenske (2011) of the measurement issues and econometric analysis problems points to shortcomings of existing studies, which raise concerns over the robustness of some of their findings. Although particularly relevant to studies on investment, they are likely to be important to the wider literature on property rights. Small sample sizes and lack of variation in outcomes limit the ability of studies to accurately predict findings. Studies frequently use binary measures of impact (i.e. whether farmers undertake an investment or not) but these are less likely to find significant impacts. Studies using farmers' perceptions of insecurity are not good predictors of investment. Some of these concerns have been raised and repeated in other studies. For instance, a recent study questioned the ability of earlier studies in the same country to capture measures of security, or determine fully exogenous property rights endowments (Ali, Dercon and Gautam 2011). This suggests that methodological issues are not yet settled and that inconsistency across the findings remains. This is reflected in several authors' cautions against the translation of results from specific papers into generalised policy suggestions and statements (e.g. Place 2009; Bromley 2008).

Socio-cultural and legal anthropological studies

There is also a large literature on tenure systems coming from socio-cultural anthropological and political sciences disciplines. Empirical studies have offered evidence supporting the idea that "land tenure is a social relationship, or that it is embedded in social relations" (Peters, 2009: 1318). Of direct relevance to the questions of security and investment, this research has highlighted the ability of customary tenure systems to provide usufruct security and some important transfer rights. It has also highlighted the role of individual titling systems in "exacerbating conflicts by ignoring secondary rights, and reinforcing patterns of unequal access, based upon, gender, age, ethnicity and class" (Peters, 2009: 1318). These contributions have nuanced the understanding of property rights, challenging the idea that there is a primacy of one tenure system over another, highlighting the importance of secure access, especially through secondary rights, and reaffirming that there are winners and losers from changes in tenure systems (Peters 2009; Ribot and Peloso 2003). Contributions from these fields have provided evidence on gender dimensions of tenure systems, land reform processes and contributions to experiences and conceptualisations of security, especially through intra-

¹⁴ Pande and Udry (2005) make the point that the diversity in customary tenure systems in African countries further limits generalisation on customary systems

household relations and through studies of disputes (Lastaria-Cornhiel 1997, Whitehead and Tsikata 2003).

Due to resource and time constraints, plus a potential bias in the search strategy, only a small number of the anthropological contributions were reviewed in this exercise.

Different measures of security and their use as independent variables

While studies all attempt to measure the impacts of difference in tenure security, within these studies there is wide diversity in study design and selection of variables to measure security.¹⁵ This issue is most relevant for economics-based studies, which attempt to quantify the importance of variations in security. Studies have adopted variations of the **conceptualisation** of security (or insecurity) defining it in different ways, depending upon the context of the study area and anticipated impact. Researchers must then choose existing measurements of security or construct new ones which are most appropriate to their particular setting; as tenure security is not directly observable, researchers measure one or more proxies. In addition to the specific context, the effect that is under investigation (assurance, collateralisation, gains-from-trade) influences the measurement of security used.

Different measurements of security have specific benefits and drawbacks. Although the conventional view stated that transferable individual title was associated with a high level of security, this has been repeatedly challenged in local contexts.¹⁶ Therefore, both in areas where titling has, and has not, been undertaken, authors have resorted to other measures.

The most common measurement used is the mode of acquisition, which looks at whether land was transferred to the present user through patrilineal, matrilineal, customary authority, or state processes (e.g. Place et al 1995). Measurements of insecurity, either through asking farmers about the risk of expropriation of their land (Jacoby and Minten 2007), whether or not they felt their holding was secure (Holden and Yohannes 2001; Amsalu and de Graaff 2007) or through measures of time since previous expropriation were the next most common. Measuring transfer rights (through measures of self-assessed control over these rights) was the least common.

¹⁵Different proxies for security include amongst others: the way in which land has been acquired, perceptions of security; exogenous risk of expropriation, possession of a title, amongst others. Place and Swallow (2000) note that whilst “there is general agreement that tenure security is related to a number of rights over land and resources that may or may not be vested in individuals... there is no general agreement about how rights should be measured, aggregated or otherwise manipulated to derive quantifiable measures of tenure security” (Pg. 1)

¹⁶ Some studies find situations where individual formal rights are not the most secure, and other types of land holding better predict investment. For instance, Otsuka et al (2003) report that in Western Ghana land received as gift is the most secure, with individual formally titled land is less so.

4.2 Evidence for Research Question 1: stronger property rights and investment

- i. Does the evidence indicate that private, formal, property rights (alone) encourage increased productive investments on land by households or can other forms of rights provide similar incentives to invest?

This section looks exclusively at the evidence from the economic literature,¹⁷ using studies identified from the 1990s up until 2012. It looks at literature which has explored the effects of differing levels of tenure security on investments and outcomes. It draws on Fenske's (2011) study and dataset¹⁸ used in a meta-analysis of the empirical economic literature, and supplementary observations of this dataset, the studies themselves and additional economic studies identified which were not included in the Fenske (2011) study. Although not all the studies identified in Fenske (2011) could be accessed, the majority of the studies were reviewed and analysed.¹⁹

This section also draws on the initial results of the Systematic Review (SR) on property rights interventions and agricultural productivity (Hall et al. forthcoming) to compare findings on investment and productivity. Based on a narrower definition of property rights and more restricted inclusion criteria, the SR examines rural property right strengthening initiatives (including certification or *de jure* recognition of individual land tenure) in Africa, South America and Asia, assessing the evidence for positive impacts of property right strengthening initiatives on investment and productivity. The selection strategy resulted in a smaller group (20) of quantitative analysis papers being reviewed.

Nature of the evidence

The relationship between tenure security and investment is one of the most researched areas relating to property rights in Africa. There are a large number of studies (>60 since 1990) which test whether conventional economic theory is observable in specific contexts. These studies rely either on data collected for the purpose of the study or on data from general survey exercises, which are then used to analyse questions related to property rights.

Meaningful aggregation and generalisation about trends in the evidence is difficult, as there is wide variety in the conceptualisations and measurements of security and methods used to collect the evidence. The specific geographical, social and cultural contexts of studies also mean that it is difficult to read across and claim that findings from one context may be applicable to others.

A major issue raised in the literature is whether endogeneity is properly controlled for, which occurs as households may (and often do) invest in order to secure rights over land. This is especially the case for fixed, visible investments such as tree planting. While some studies claim to avoid this through some specific characteristic of their study (e.g.,

¹⁷ This approach was taken on the grounds that this subset of the literature is most relevant to explore the economic characteristics on which the case for strengthening property rights is commonly made, and that a full review of the wider literature is beyond the scope of this exercise. However, a weakness of this approach is that by excluding many other studies from other disciplines. This is therefore a partial review, and may miss out on important insights and empirical evidence offered by other non-economic evidence

¹⁸ The database reports relevant details of the studies including investment types; on what basis security is measured; and whether findings were significant at the 10% level. Note that this is a relatively low benchmark for inclusion, and it can be argued that the high number of insignificant results indicates a low level of consistency in results.

¹⁹ The majority of the studies (over three quarters) cited in Fenske (2011) have been analysed to confirm reported results

if there is a district-level land expropriation and redistribution event which a farmer cannot influence), in most cases this must be controlled for using econometric techniques. While this can be achieved to the satisfaction of the original study authors, it is difficult to consistently verify this without digging deeply into the methodology or going back to primary data used.

Findings

Findings by countries of study

There are a high number of studies from Ethiopia (22 identified), with lower numbers (between four and seven each) from Burkina Faso, Ghana, Kenya and Uganda, and still fewer studies from other countries. The large number of studies from Ethiopia reflects its history of land policy, especially since reforms in the 1990s and subsequent efforts to undertake large-scale land registration and particular donor or academic interest in the country. There are increasing numbers of other studies coming from countries which have had recent titling initiatives (e.g. Rwanda and Madagascar) but the overall number of studies from these countries is still relatively low. Within any given country, findings are generally inconsistent, as no single country has studies which consistently demonstrate important effects of strengthened security across all measures of tenure security. In Ethiopia, there are inconsistent impacts of measures of stronger tenure, with an equal number of studies finding positive and negligible effects. A partial exception to this may be the three studies identified which look specifically at the impact of the registration scheme which all report positive effects of this on investment (Deininger et al (2008), Deininger, Ali and Alemu (2008) and Holden, Deininger and Ghebru (2007)).

Looking specifically at titling programmes, findings are mixed. An important conclusion which emerged from studies in the early 1990s was that titling programmes in Africa — especially in Kenya (Place and Migot-Adholla (1998) — had had little discernible effect on investments, and in many cases led to negative outcomes (such as extinguishing rights of secondary rights holders), partly owing to poor administration of the titling process and subsequent management. For the more recent titling programmes, evidence is also mixed. As mentioned above, titling in Ethiopia has been associated with higher levels of investment, whereas in Madagascar, studies have not found these positive effects of (Jacoby and Minten 2007; Bellemare 2012).

Does security against expropriation lead to higher investment?

Despite clear theoretical reasons why reducing insecurity resulting from lowering the risk of expropriation should lead to a positive effect on investment, studies which have explicitly looked at this issue have not identified unambiguous, positive effects. In Ethiopia (where this issue has been studied most), Benin and Pender (2001) find that farming households which have experienced redistribution of some of their land previously — a proxy for insecurity adopted by several authors — has only affected one of fifteen forms of investment investigated (the construction of stone terraces). Deininger and Jin (2006) also find that for households who had experience of redistribution on any of their plots of land, the impact of previous redistribution had an important negative impact only on investments in stone terraces,²⁰ while the effect on investment in tree planting was positive (i.e. households that had experienced previous redistribution were more likely to plant trees than those that had not).

There is slightly more support for perceived insecurity being important for influencing adoption of investments: Deininger and Jin (2006) find that expectations of future expropriation have a strong effect on adoption of stone terraces, and Benin and Pender (2001) find that expectations of future redistribution also negatively affect investment in irrigation facilities. On the other hand, Holden and Yohannes (2001) find that perceived

²⁰ However, they note that that only *gaining* land through redistribution has a significant impact; the impact from *losing* land is insignificant.

tenure security does not influence whether farmers have undertaken investments in perennial crops²¹. In Ghana, Goldstein and Udry (2008) find strong evidence that lower risks of expropriation lead to longer fallowing of land.

Does transferability of rights increase investment?

Transferability is theorised to be an important component of secure property rights, as it is key to effecting the 'realisation' channel (as households are more likely to undertake investments if they can recoup the cost of this, or if land goes to their nominated inheritor). However, findings in the literature are mixed. Deininger and Jin (2006) report important effects of having transfer rights on investments in terracing, but the number of people in their Ethiopian study who perceive they have these rights is very small. Besley (1995) also finds mixed evidence on whether the holding of transfer rights increases incentives to invest, with different findings from different regions. Earlier findings from Place and Hazell (1993) indicate that transfer rights do not incentivise households to invest in trees or terracing in Kenya.

Types of investment

Overall, studies find that the tenure security status has different effects on different types of investment. Some authors have proposed that tenure security may be more important for long-term, visibly high-yielding investment (e.g. terraces, irrigation) than investments which can show returns in over one season (e.g. fertiliser, manure). The outlay made for these investments is typically larger than for short-term inputs, and therefore losses resulting from expropriation are greater. The majority of studies look at *adoption* of investments, while a few look at the *intensity* of investment. This section disaggregates the evidence by type of investment to explore whether there are generalisable differences on the basis of types of investment.²²

- **Improvements to land.** Improvement to land is the most researched area within the literature, with at least 39 studies measuring these. These investments mainly include shaping land (levelling, ploughing, contouring) or building structures to prevent erosion and runoff (e.g. bunds, terraces) and irrigation facilities (drainage and irrigation canals). Overall, the effect of tenure security on land improvement is mixed, with a balance between authors reporting statistically significant effects and those finding no effect. In Ethiopia, where many of the studies looked this issue in relation to soil conservation, although there are slightly more studies reporting no effects across all land improvement investments, slightly more studies report significant effects on adoption of stone terraces; a long-term, large investment. (Gebremedhin and Swinton 2003; Holden and Yohannes 2001; Deininger and Jin, 2006). The quantitative studies reviewed in SR point to a less ambiguous and strong link between strengthened property rights and investment on land; interventions are expected to result in a 6% rise in infrastructural investments.
- **Tree planting.** At least 23 studies have researched the effect of tenure security on tree planting. Tree planting indicators include planting of cash crop (coffee, cocoa, timber), fruit and other purpose trees. Much of the evidence points to tree planting being undertaken to strengthen claims over land, rather than resulting from increased tenure security (Besley 1995; Brasselle et al 2002; Deininger and Jin 2006). In the latter case, for instance, tree planting was found to increase as a result of expropriation risk. However, there is also some evidence of positive effects

²¹ This may highlight differences in relation to the type of investment, highlighted below.

²² This disaggregation is done across all studies on the assumption that study authors have identified appropriate measures of security and designs in their studies.

of tenure on tree planting, where endogeneity has been controlled for (e.g. Holden, Deininger and Ghebru (2007) and Ali, Dercon and Gautam (2011) who find that planting of economic trees increases with stronger transfer rights in Ethiopia).

- **Short-term inputs.** There is a medium-sized literature researching the effect on annual, short-term inputs, with at least 18 studies measuring this. Indicators measured varied between input of fertilisers, chemicals, manure and mulches; seeds and crops; manual and draught labour. Evidence here points to a positive effect between strength of tenure and input use, especially for fertiliser use, with only one of the eight studies identified not finding a statistically significant effect. The least ambiguity of a positive impact on short-term inputs came from Burkina Faso and Uganda (where almost all studies found statistically significant impacts), with more mixed findings from Ethiopia and Ghana. However, this too is contradicted in other studies, (e.g. Holden and Yohannes 2001). Fenske (2011) finds this result surprising given that the link should in theory be weaker, and his own cross country-study this finds a weaker impact.
- **Fallowing.** A small number of studies (seven) examine the link between tenure security and fallowing in four countries. In some of the cases, fallowing is an instructive measure to investigate because it is not correlated with a strengthening of claims over land. Rather, land that is fallowed is likely to be redistributed if other community members have insufficient land. Thus, the risk of confounding the causal link between investment and strengthened security is minimised. Most of these studies found a statistically significant relationship between tenure security and fallowing, with results for this particularly supportive from Goldstein and Udry's (2008) study from Ghana.
- **Output and productivity.** Most studies which have looked for a positive impact of tenure security on measured (as opposed to modelled) output or productivity have not found important, statistically significant impacts. Despite finding statistically significant and substantial effects of tenure on investment, once crops choices are controlled for, Deininger and Alayew Ali (2007) find no difference in terms of output and productivity between plots with different tenure status, although they note that plots planted with trees (which are more likely to be planted on owned plots) have higher overall productivity. By contrast, Benin and Pender (2001) found that redistribution of land in Ethiopia had raised yields of barley and teff, which they attribute to recipient farmers having higher capacity to increase production. The lack of positive findings for tenure security on output and productivity echo results from the earlier 1990 studies (e.g. Place and Hazell (1993) from Ghana, Kenya and Rwanda) that found that variation in land use or transfer rights had no effect on yields. However, the SR on property rights and agricultural productivity (Hall et al forthcoming) found more consistent evidence linking stronger property rights to improved productivity, with interventions expected to lead to a 40% increase in productivity. This may be the result of the selection criteria, which resulted in a smaller number of studies being reviewed as well as the countries reviewed, which include countries in Latin America and Asia, and they caution interpretation of this result.

Importance of other considerations

In general, even where results from studies point to benefits from tenure security, these effects are often smaller than other effects studied. Benin and Pender (2001) note that

overall, factors such as presence of irrigation, access to credit and extension have a more important effect than that of recent redistribution in Ethiopia. Similarly, results from Deininger and Jin (2006) point to a more important effect of access to extension services than any of the measures of insecurity that they include in their study.

Conclusion

The literature reviewed gives an inconclusive picture of the effect of strengthened property rights on investment, as findings from studies are not consistent in pointing to either the presence or absence of a link. The wide diversity in study contexts, in study designs and in types of investment analysed in the included studies mean that conclusions are necessarily general. While some studies have shown positive impacts of differences in tenure security in specific contexts (e.g. adoption of stone terraces in Ethiopian studies), others have found no impact. Even for reduced risk of expropriation which is the most straightforward way to strengthen property rights, the evidence does not consistently find this to be important. Although part of the reason for this is the difficulty associated with measurement, this is not the only reason: household responses to questions of what effect the risk of expropriation has in determining their investment decisions do not consistently indicate this to be important.

An important conclusion therefore is that the link between strengthened property rights is not straightforward, and contextual factors have an important role in modifying outcomes. In some instances this is because other variables, such as access to extension or credit, are more important to increasing investment. In other instances, the reasons for the lack of a link are not clear.

An important point is that the findings of this review are sensitive to the inclusion criteria set by the methodology. The restriction of the literature to African countries excludes experiences from other countries, which may point to clear beneficial findings. For instance, including Peru (a country which has experience of a recent large-scale titling programme) in the pool of literature may result in a more positive picture (see Box 1).

Box 1: Land Titling in Peru

The ambiguous results found from this review may differ with the inclusion of literature which focuses more closely on specific experiences of land titling, and broadens its geographic criteria. For instance, studies carried out on the Land Titling Programme in Peru (PETT) found clear positive results of titling and registration on probability of rural households undertaking investment (Antle et al 2003, Torero and Field 2005, Fort 2008, Nabasone 2011). Investments here were made without accessing credit provision, and indeed the constraints to access to credit go beyond lacking formal title for all but the wealthiest farmers; for the majority of farmers having rights to their land formally recognised did not allow them to gain access to credit. Another important finding was that a clustering effect existed, i.e. the absolute number of titles in a given area leads to higher overall investment.

This is further underlined by comparing the results from this literature review with those from the SR on agricultural productivity. The SR finds stronger evidence for positive impacts of property right strengthening initiatives on investment than this literature review (LR) does.

The authors point out reasons why the SR draws such strong conclusions, and how some of these may partly be the result of methodological choices or characteristics of the evidence:

- Findings for productivity gains are strongest for Latin American and Asian studies and weaker for the sub-Saharan African countries included in the SR. Findings from the LR are based only on sub-Saharan countries, where the link

may be less robust.²³ The discussion section of the SR's explaining why this may be the case echoes the points made in this paper.

- Gains in productivity are greater in wealthier and more densely populated settings. Studies were not disaggregated by these parameters in our methodology. Our exclusive focus on Africa, where there is a higher percentage of low income and sparsely populated countries, may influence this.
- In the SR papers, beneficial effects of investments tend to decline as years pass since the intervention was initiated. Our study does not disaggregate by this parameter and there is no analysis of this parameter.
- The SR restricted its analysis to studies which looked at interventions to improve tenure security. Our LR also included papers which looked at differences between households or regions with different rights, which may be important to the final outcome.

However, there are also numerous areas of alignment in the findings and key messages from the reports. The SR also discusses caveats in their literature pool: there is some evidence of publication and spill-over bias in the papers which make the SR authors think that their evidence overstates the beneficial effects of tenure *recognition*. Also, the quantitative evidence has little to say about social outcomes like displacement, conflict or gender equality, which the authors address through looking at findings from qualitative studies. Overall conclusions between the two papers are therefore broadly aligned insofar as they overlap; they indicate some support for positive linkages of property strengthening initiatives, not necessarily formal individual titling, but highlight the numerous limitations to generalising on positive experiences and transposing successes to other contexts.

- ii. Does the evidence confirm that 'free, open' land markets increase inter-household land transfers, leading to allocative efficiency and greater productivity or do they act to promote social and economic differentiation and dispossession?

Nature of the evidence

There is a small volume (<15) of mixed evidence on whether opening land markets leads to efficient, equitable outcomes or whether land ends up being concentrated in the hands of the wealthy minority.²⁴ There are few formal land markets in Africa, meaning that access to data is difficult,²⁵ and therefore not easily enumerated. There is strong evidence that many customary tenure systems support informal, or customary, rental and transfer markets (pledges, loans etc.) (Chimhowu and Woodhouse 2006), or that transfer markets exist in countries where these are statutorily illegal (e.g. Ethiopia, cited in Dercon and Krishnan 2010). Reviews suggest that there is little evidence on whether this is done in an economically efficient manner. There is some evidence on how this can also lead to dispossession, but there is also evidence that this does not always occur and land distribution may broaden as a result of opening of land markets.²⁶

²³ The African studies reviewed in the SR were also included in our analysis

²⁴ This statement on the small volume is supported by Colin and Woodhouse (2010) and (Vendryes 2011)

²⁵ Holden et al (2009) provide an overview of land sales across Africa, noting that sales especially low in southern Africa (Zambia, Zimbabwe and Malawi), more common in East Africa (especially Southern Uganda) Vendryes (2011) notes that the World Bank advises to restrict alienation rights to renting which means there is relatively little data on sales to address this issue (in many African countries sales are still illegal)

²⁶ This paper did not investigate differences between formal and informal markets leading to different distributional outcomes. Although this may provide further insights (Hall, personal communication), this did not appear to be a major theme in the literature consulted.

Findings

Evidence on whether interventions to activate markets lead to unequal distribution

There is mixed evidence on whether more formal land markets increase equality of land holding. In Eastern and central Uganda, emerging formal land sales and rentals corrected inequality in land, across and within villages (Baland et al 2003, cited in Holden et al 2009). This is also supported by evidence from studies from Kenya, Uganda and Cote d'Ivoire which find that land markets have not led to higher concentration of land distribution. Although there were findings of distress sales in Rwanda (Andre and Platteau 1998, cited in Place 2009), more recent (preliminary) findings on the effects of the recent land tenure regularisation programme in Rwanda point to low formal market activity and thus low incidence of distress sales (Ali, Deninger and Goldstein 2011).

However, there is also evidence from other countries that supports the position that markets concentrate land, and do not lead to more equitable holding of land. In Tigray, Ethiopia (Holden et al 2009), although rental markets were more active, villages with a history of low rental activity did not participate more; rather those that had a history of renting did so on an increased scale. Other findings from Ethiopia point to increasing concentration of land in the hands of the richer farmers (those endowed with oxen and labour). This is also supported by earlier evidence from Kenya and Burkina Faso (cited in Holden et al 2009).

Existing customary systems of distribution may promote transactions and allocative efficiency

In most of the literature on Africa reviewed, land transfers do occur under existing customary or informal systems of tenure. An exception is Ethiopia, where land transfers were prohibited until the 1990s, when the regulations were gradually changed across the country. Since then, there is evidence that the land policies which opened land rental markets led to higher efficiency of land distribution. In Tigray, provision of certificates led to an increase in parcels rented out, fulfilling some of the existing demand amongst land-scarce populations (Holden et al 2009).

Under customary law systems, while transfer rights may well be *de jure* limited, there is strong evidence of 'vernacular', informal markets operating in which land is rented and sharecropped through various mechanisms, thus allowing households with low endowments to access land. Gavian and Fafchamps (1996) find that although there is some inefficiency in distribution of land in Niger (as labour is not transferred to match land endowments), this is not substantial and is not likely to be remedied by replacement of the tenure system. Colin and Woodhouse (2010) cite 11 studies reporting empirical findings from 16 African countries which illustrate a wide variety of mechanisms used to distribute land within customary systems, pointing to functioning markets.

Land sale markets operating within customary systems are not necessarily more equitable

Through case studies in four countries, Woodhouse (2003) finds support for Lund's (2002) observation that land markets often operate within many customary systems, but these do not unambiguously provide a safety net for the vulnerable, as has sometimes been claimed. This view is supported in Gray and Kevane (2001) who argue that the investment and intensification process lead to greater social differentiation in Burkina Faso. Chaveau et al (2006) suggests that, although more active markets have emerged, these are neither free nor open: their outcomes are determined rather by "opportunism, force, simulation and playing on the pluralism of norms".

Several studies also report that the provision of transfer rights under customary systems does not automatically confer autonomy in decision-making, so may not enhance equity or lead to more efficient land use. Reviewing evidence from different parts of Africa (Malawi, Burkina Faso and West Africa), Colin and Woodhouse (2010) note that while sales of land are becoming more common, so are disputes over the meanings of these transactions, as disagreements occur over whether land sales pass on full rights to the

buyer (i.e. to resale the land as they wish). This indicates that formal land markets alone do not necessarily result in equitable outcomes if there is lack of clarity over the terms of transfer or if there is a lack of enforcement.

Conclusions

The evidence reviewed above has pointed to mixed effects of land sales and rental markets on efficient outcomes. In areas where land markets did not exist at all (e.g. Ethiopia) there appears to be some evidence that more active land markets lead to higher efficiency outcomes. In other contexts, the fact that informal land markets often do operate under customary systems means that gains from formalisation are limited. Whether land markets lead to more equitable distribution is similarly unclear; examples of both more and less equitable results are presented in the literature. The evidence is often opaque due to the difficulties in assessing whether sales of formal title are undisputed and existing claims to land are extinguished. These points illustrate the difficulty in assessing whether the outcome of land sales (irrespective of their negotiation) improve efficiency, and the limitations of attempts to view land sales in economic terms alone and separate from their social and cultural contexts.

- iii. What is the evidence to support the hypothesis that stronger property rights lead to a reallocation of factors of production from guard to productive functions in reality?

Nature of the evidence

There is no evidence which directly investigates this question in the rural African literature. There is also little evidence which focuses directly on this effect globally; the three papers were found to investigate this formally came from Latin America. An influential study (Field 2005) examined this issue in urban settings in Peru, finding that titling led to women leaving their houses more frequently to undertake more productive work. Nabasone (2011) examined this link in rural Peru, and found that titled households dedicated more labour to farm work, and did not take up more off-farm work. In Brazil's Amazon region, Alston, Libecap and Schneider (1996) who found that resources were diverted to unproductive, protective functions as a result of insecure tenure.

The low number of studies researching this may be a result of the difficulty in investigating and quantifying this effect. Activities which have an exclusively protective function are few ('guard activities' have multiple goals) and isolating how much of an action fulfils a guard function, as opposed to other social or political functions may be challenging.

- iv. Does the evidence indicate that stronger property rights lead to enhanced access to credit for rural households through use of land as collateral or are other characteristics of the financial market and households more important?

Nature of the evidence

There is a small (<10) number of empirical studies investigating the effect of title on access to credit. A larger number of studies have noted that in the area that their study took place, supply of credit is highly limited and is therefore not measurable.²⁷

Studies which have explored the effect of titling on credit access have not found conclusive evidence of this effect.²⁸ Recent literature reviews of the evidence also support this view (Van den Brink et al 2006; Place 2009; Doemeher and Abdulai 2012).

²⁷ For instance, studies from Ethiopia and Madagascar noted that credit in these areas was in short supply and therefore was not investigated.

²⁸ Two identified studies cite **positive** effects of property rights on access to credit, (Hayes et al 1997 in Gambia, and Barrows and Roth 1989). In Hayes et al (1997), the total use of land as collateral is small (3%) so these findings point to a low importance of credit overall, compared to other effects.

Findings

The relationship between tenure security and access to credit has been studied since the 1980's; little of the earlier evidence provided quantitative, robust information (Feder and Nishio 1998). The World Bank study by Migot-Adholla et al (1991) looking across links between rights and outcomes, including accessing collateral in ten regions of Ghana, Kenya and Rwanda did not find that titling in these countries had a positive effect on access to credit. Since then, the few studies which have focused on areas where credit is available and which investigated the presence of the 'collateralisation effect' of title have not found strong evidence of this (e.g. Carter et al 1997; Place and Migot-Adholla 1998). In their study of several regions of Kenya, Place and Migot-Adholla (1998) note that credit was only used in areas of their study where larger farms existed. Place et al (1995) found that access to credit did not differ between titled and non-titled farmers in two regions in Zambia, with roughly half of both groups having access to credit. A more recent study on credit access in Uganda found that there was little or no difference between freehold and customary household access to formal credit, or between households with or without title (Petracco and Pender 2009).²⁹

The reasons for the absence of an effect between land title and collateral are widely discussed in the literature. Doemeher and Abdulai (2012) note that in order for titling to be fully functional for the purpose of accessing credit, the registration procedure should: 1) improve land tenure security, reducing land ownership uncertainty and related disputes and litigations; 2) facilitate the operation of land markets or land transactions; 3) reduce the time and cost of verifying land ownership; 4) reduce information asymmetries; and 5) raise land values. However, many of these do not occur through the titling process alone, or when titles are not kept up to date. Moreover, there are often barriers to lenders being able to secure collateralised land: Place and Migot-Adholla (1998) note this in Kenya; Deininger and Ali (2008) note hindrances to the credit supply resulting from ambiguity of ownership over land in Uganda (where disputes still existed over the formal title). Collateral is often not the main cause of credit refusal: low assessment of ability to repay or cash flow issues may be a larger barrier, especially in areas with high covariate risks of crop failure (Deininger and Feder 2001).

Reluctance on behalf of borrowers to mortgage land (their main asset) in a risky environment also constrains collateralised borrowing. Nyamu-Musembi (2006) finds this to be the case in a study in Kenya, and cites support for this view in earlier findings in Shipton (1989) in the same country.

Conclusion

There is little evidence of titled rural African households gaining access to credit more regularly or easily than other households, pointing to a limited use of the collateralisation effects that formal title potentially confers. Several factors may prevent this effect from being observed across countries, including the absence of deep formal credit markets in many rural areas (due to high and covariate risks associated with farming borrowers, small land holdings with individual low values, difficulties of foreclosing and liquidising land collateral) and presence of other forms of lending which allow credit provision without requiring land as collateral (including informal lenders and inter-household loans).

²⁹ They did however find a difference in access to informal credit, which is attributed to the use of title as a screening mechanism by informal lenders).

4.3 Evidence for Research Question 2: land rights and women's economic empowerment

2. What evidence is there to show that individual, private tenure is necessary or sufficient for securing women's economic empowerment and their access to goods and services?

Nature of the evidence

There is a large and diverse body of evidence on women's *de facto* rights under differing tenure systems, with contributions largely coming from social and legal anthropological, and political studies. Economic analyses investigating the gendered dimensions of property rights are small in number; most studies on property rights take the household as the unit of analysis, and do not look at intra-household differences that may exist between men and women's rights. Given the wide variation in women's positions with regards to access to land, it is difficult for economic studies which look at average effects to pick up on complex pathways and factors. The literature points to considerable debate and conflicting evidence on whether customary systems are more gender equitable than other forms of tenure status (Doss et al 2012).

Findings

In general, women are commonly observed to be disadvantaged in their access to, and control over, land (Meinzen-Dick et al 1997; Place 1995; Walker 2002; Yngstrom 2002). Limited security of tenure may restrict the ability of women to access natural resources tied to land and benefits flowing from these (Pehu et al 2009).

There is a set of literature that provides evidence that customary systems tend to favour men over women (Lastarria-Cornhiel and Garcia-Frias 2005). Women's claims within the lineage may be the weakest under some tenure systems and they may risk having their land expropriated more easily than men (Otsuka et al 2003; Place 1995) or be poorly protected where national law allows exemption from laws on equality for areas governed under customary law (Knight 2010). For instance, in Uganda despite national law nominally providing women with equal land rights during the dissolution of marriage, customary practices may in fact extend fewer rights to women (Bomuhangi et al 2012). Evidence from Kabale, Uganda shows women prefer magistrate's courts over local (customary) councils, as the latter were more likely to be filled with friends or relatives of their husbands (Khadiagala 2001, cited in Varley 2007).

This might imply that formal titling could improve gender equality and there is some evidence in support of this: of the low number of economic studies on recent titling initiatives, titling in Rwanda helped women access more land, and afforded them greater security over this land through joint marriage rights (Ali, Deininger and Goldstein 2011). The Ethiopian land registration process increased the confidence and tenure security of female heads of household and subsequently increased their ability to rent out land (Holden, Deininger, and Ghebru 2007).

However, this evidence is not unchallenged as impacts may differ between different types of women, and the studies in Rwanda and Ethiopia did not distinguish between women in different situations (e.g widows). (Please see the Property Rights and Social, Political and Economic Empowerment paper in this review for further discussion of evidence from other authors on the sedimentation of male control over land through titling in Kenya and Uganda.)

In addition, there are some contradictory findings: reviewing gender-related land disputes, Whitehead and Tsikata (2003) find evidence that customary tenure systems are able to exercise more flexibility in their treatment of women claimants. Moreover in contradiction to statements that private title benefit women Lastarria-Cornhiel (1997)

cites several studies which find that government registration programmes tend to marginalize women even further by formally excluding their rights and interests in land. She also notes the reported gender bias in access to social relations, education and capital which hinder women's ability to participate in land markets and benefit from private property systems.

The question of whether joint titling of land is successful in bringing benefits to women, or whether this can only be achieved through individual titling is a further area of debate in the Sub-Saharan African context. These arguments revolve around whether patriarchal arrangements oppress women, and whether joint-titling alters the power balance in households. Walker (2002) drawing from experience from KwaZulu Natal argues that this is an important first step for women, in a context of their lack of economic resources, unstable marriages, and incapacity of governments to implement land reforms (which may provide more preferable arrangements). However, there are arguments in other contexts, which also draw on research in other regions (Agrawal 1994 from India; Varley 2007 largely from Mexico and Latin America) which argue more strongly that individual control over land is the way to guarantee that women gain and retain benefits through their lifetimes, as joint titles are not sufficient on their own.

Given the diversity and small number of these findings, evidence on whether strengthening women's property rights results in greater agricultural productivity is limited and contested.³⁰ A recent FAO study note that it is impossible to empirically verify the share of food in a household produced by women, because in most households both men and women contribute to production, and even where specific crops are associated with women, these associations may change over time (FAO 2011). Comparisons between male and female-headed households are confounded by the fact that the latter have smaller average plots and use fewer purchased inputs. Therefore, while inferences may be possible, there is no robust evidence of the effect of strengthened property rights for women leading to higher levels of agricultural production (Walker 2002, FAO 2011).

Finally, there appears to be a small body of strong evidence that the *processes* of tenure intervention (including titling) are important for securing women's access to land. Knight (2010) notes that key differences in the adoption of clauses considered beneficial to women in four case study countries were dependent on the transparency and high level of involvement of women in the processes. In Rwanda and Tanzania, legislation mandates that local land committees throughout the country and local government management committees be composed of at least 30% women, which has increased the voices and visibility of rural women throughout land reform projects (Daley et al 2010; Walker 2002).

Conclusions

There does not appear to be strong, generalised empirical economic evidence on whether individual private tenure provides better conditions for women's empowerment than alternative systems, including customary tenure. Similarly, studies from legal anthropology and gender issues note a similar ambiguity across the evidence. As with other questions on property rights, the context of these questions is highly important: as Walker (2002) notes, legal changes can only be enabling, and changes realised if "women are able to use the space that has been created". Stronger evidence emerges on the beneficial impact of having mechanisms to provide substantive input from women into local land consultation and decision-making initiatives.

³⁰ One of the frequently cited benefits of strengthening property rights for women is that this may reduce the difference in productivity that exist between plots farmed by men and women

4.4 Evidence for Research Question 3: security of land rights and land grabs

3. What is the evidence on the vulnerability of land held under different tenure systems to land grabs coming from this emerging body of literature?

This section discusses the literature on recent large-scale land deals³¹, to determine whether certain types of rights offer greater security against land deals that are transacted by governments, local authorities or traditional leaders, without the consent of landholders themselves. Although it is recognised that the term land grabs covers a wider, common phenomenon of dispossession within communities (e.g. of vulnerable people, women) the following discussion does not cover the latter, and deals with large-scale land acquisitions made by foreign or local entities of land which the State or other authority nominally has the right to transfer.

As the body of evidence and literature on large-scale land deals is recent, the search strategy was expanded beyond journal databases. Institutional websites of organisations known to have conducted or brought together research on the phenomenon were specifically searched for relevant studies on Africa. This included the websites of the Future Agricultures Consortium, the International Institute for Environment and Development, the International Land Coalition, the Cornell Land Project, and World Bank Land and Poverty Conferences 2011 and 2012.

Nature of the evidence

The identified evidence on specific land deals is generally split between case studies of specific deals or overall analyses of global land deal activity. The latter are generally investigations whose research methodologies involve consulting media reports and databases, conducting interviews and cross-checking with local sources. Given the relatively short time span since the main wave of media coverage (mainly since 2008) most reports caution that findings in overall analyses may not be robust as they aggregate reported deals, some of which may not be concluded. Although the evidence strongly supports the scale of land deal activity,³² there is limited evidence looking at the aggregate impact of land grabs on communities. However, there is a growing body of case study evidence investigating specific examples where land deals have led to local dispossession of land (e.g. Oakland Institute 2011; White et al 2012). There is relatively little evidence on effects disaggregated past the community level, e.g. by gender (Behrman et al 2011).

Studies looking at case study level have largely focused on general characteristics of land deals and generally do not dedicate much discussion to the actual tenure status of land prior to acquisition,³³ instead analysing the impacts on local populations in terms of displacement, conflict and dispossession. Most reports note that the land which has been

³¹ This section refers to the generic term land deals instead of land grabs or other terms (i.e. large-scale land acquisitions) in order to avoid issues relating to providing a more precise definition of land grab and subsequently narrowing the discussion. A more precise definition is offered by the Tirana Declaration (<http://www.landcoalition.org/about-us/aom2011/tirana-declaration>) as well as by other authors.

³² Whilst there is strong evidence in the interest of land deals in Africa accounting for roughly 2/3rds of global interest, whether these projects have been implemented is somewhat less certain. Recent research suggests that half of reported deals (globally) have actually resulted in a transaction of rights (625 projects in total, for which there are contracts for 223, and on which 202 production has started (Anseeuw et al 2012). 20 of the 33 countries confirmed to having issued tangible leases since 2007 are in Sub Saharan Africa (Alden Wily 2011)

³³ This may well be due to the general findings that the majority of projects are negotiated by the State on land which is ostensibly held by the State (or in some cases where community-held land is transferred first to the State to be transferred further to investors e.g. Tanzania). Alden Wily (2010) notes that this may also be owing to a (contested) assumption that the State has a legitimate claim over the land. Other aspects of investigation which are of more interest include the identity of investors, scale of the projects, and intended use.

acquired is predominantly classified as state-owned by the host State, although in most cases there are existing, unregistered customary tenure rights over the (usually communally held) land. A review of the evidence points to land deals primarily involving land which is classified as commons (Alden Wily 2011). A review of the national laws relevant to customary rights to see whether these offer protection to local communities against State expropriation indicates the relatively vulnerable status of land held under customary tenure in different countries (Alden Wily 2010) but no study was found which correlates typologies of land laws with reported or finalised land deals.

Findings

Discussion of the evidence for this section is discussed under headings relating to general findings.

Investment interest is highest in areas where land governance is weak. In the one study identified which attempts to establish causal linkages between governance and land deals, Arezki et al (2011) use data from 464 projects reported in media reports and finds that there is a negative correlation between the level of reported demand for land deals and the share of the population in rural areas whose land rights are recognised,³⁴ supporting statements that land deals take place in area where tenure security of local users is low.

Land deals largely take place on land over which the state ostensibly has ownership/residual rights. In most countries where acquisitions have occurred, negotiations have been conducted by the State, which has claimed residual rights on the land as the de jure/allodial owner (Alden Wily 2010). Deininger et al (2010), summarising case studies in five African countries,³⁵ note that in many of the areas of recent interest, population density is low and customary governance practices prevail, which at best have uncertain official recognition. There is no identified evidence that investors target land with specific tenure status; studies which have investigated this have noted that this information is unavailable (e.g. Nolte (2012) for Zambia). Alden Wily (2011) notes that acquisitions are likely to take place on commons, where there are few issues related to negotiation and payment of compensation, and thus preferential to both government and investors.

However, there are also cases where customary authorities have negotiated deals, and therefore can be seen as having enabled alienation of land. The case of Ghana is frequently cited in the literature (IIED 2009; Deininger et al 2011) as an example of where negotiations with customary authorities have led to outside investors securing large areas of land. Schoneveld et al (2010) cite 17 biofuel developments in which customary chiefs, with support from the state agency, have leased out lands with benefits largely flowing to the chiefs. Where land deals do involve land which has customary claims, priority may be given to land deals; Sulle and Nelson (2009) note that biofuel projects in Tanzania have acquired land predominantly through the Tanzanian Investment Centre in a process through which land acquisitions replace existing customary claims to land.

Existing laws ostensibly protecting customary users' land rights are not effective in guarding against land deals. In a review of the laws in several African countries, Knight (2010) notes that none of these provide sufficient protection for local communities, as States reserve the right to take back 'unused' land. Deininger et al (2010) note that in Zambia, customary rights of land cannot be registered or surveyed, which makes these areas vulnerable. They also cite the case of Liberia, where lack of clarity on whether customary arrangements have legal recognition has led to these lands having been transferred to outside investors without compensation, leading to conflict. They argue strongly for a

³⁴ They also find that land deals are more likely to be sought in countries where overall governance is weaker, although this finding is not significant.

³⁵ Democratic Republic of Congo, Liberia, Mozambique, Tanzania and Zambia

need for these rights to be documented. Alden Wily (2010) notes that the Malian land law is prejudiced against customary land law: “customary rights are only recognised as existing on unregistered lands, but only registered statutory entitlements amount to a real property interest” (pg: 4). Additionally, the negotiation of land deals often discriminates against non-registered customary rights holders and other users, especially the most vulnerable. Deininger et al (2010) cite evidence from Zambia where resettlement has been pursued in lieu of compensation, but this rarely takes account of the full nature of pre-existing customary rights. In cases where compensation is given, this may only be done for recognised customary rights holders, and exclude people with a perceived migrant status.

There is also some evidence that where tenure reforms that have aimed to protect customary lands have failed, land has become more vulnerable to land grabs. In an overall review of national land laws in 40 countries, Alden Wily (2010) notes that existing provisions for customary rights do not afford adequate protection from expropriation. A clustered ranking of countries, based upon the *de jure* protection afforded to customary rights finds that in Tanzania, Ghana, Mozambique and South Sudan “customary holdings are equivalent in legal force and effect to property rights which have been acquired through non-customary routes” (pg: 14.). The restriction of *de jure* protection to house and farm plots (and not communally-held grazing, forest and other common property areas) in Botswana, Namibia and Madagascar means customary lands in these countries are afforded a slightly lower level of protection. Statutory entitlements carry greater legal force than customary interests in Benin, Burkina Faso, Cote d’Ivoire, Lesotho Niger, Nigeria Senegal and Zambia, although the latter are recognised as being more than simply rights to occupy and use land. The lack of legal recognition of community-derived rights in Burundi, Eritrea, Ethiopia, Mauritania and Somalia, (where there is total reliance of state-granted rights), means that customary rights are given no legal protection. The least protected, in terms of the law, are customary rights in Cameroon, Chad, Democratic Republic of the Congo, Gabon, Gambia, Mali, Somalia, Sudan, Swaziland and Zimbabwe where they exist on national land, in a state of statutory grant or lease from the government. However, the fact that numerous land deals have occurred in Mozambique and Tanzania (German et al 2011) in which local rights have not been adequately respected indicates that the existing provisions may be inadequate even in these countries where laws offer a high level of protection.

General shortcomings in land laws, which make land vulnerable to land “grabs” include: protection is extended mainly only to formally registered occupancy and use rights; registration often requires a change in the status of the right, extinguishing customary forms; recognition of rights extends only to settled and farmed estates, and conditional upon sustained, visible use; laws do not support customary land administration at the local level; the State regularly exercises its right to appropriate title to customary lands, and laws often give legal priority to commercial use of land, by classifying private commercial enterprise as public purpose (Alden Wily 2010).

Due to limited rural titling, land deals rarely coincide with individually titled lands. Alden Wily (2011) notes that limited rural titling of lands other than those which are privately held (i.e. by individuals) has meant that land deals have not coincided with areas of titled land. The one example identified of this occurring is from FIAN (2010, cited in Alden Wily 2011) which reports a case of a foreign-operated farm threatening title holders in Kenya in order to buy out their land.

Several countries (Liberia, Tanzania and Mozambique) are reported to have communal titling initiatives in progress (Knight 2010) but little evidence on higher levels of security provided by these was identified. Even where communities are recognized as the legal owners of land, they may still be persuaded into selling off land by members of the local elite for benefits which have not materialised (Alden Wily 2012).

Conclusion

This review did not find substantive evidence which definitively proves that titled land offers a higher form of protection than non-titled land but this may well be the result of the large amount of land with unregistered customary claims, which limits the need for investors or governments to seek out land with existing claims. The growing literature on the recent land acquisitions suggests that communally-held lands which are under customary tenure systems are likely to be at a higher risk than individually or communally titled lands, as the low statutory level of protection offered to them under national laws makes it relatively simple (from a legal perspective) for the State to appropriate and lease them to commercial interests.

5 Evidence gaps and research needs

The review process has exposed several evidence gaps which should be explored further to provide clearer policy-relevant messages:

- The impact of property strengthening on women's access to and control over land is an area where messages are mixed. Further research on how property strengthening initiatives affect women with different statuses is needed. There is some limited evidence on how women's access and control over land can be strengthened through their involvement in demarcation and registration processes, but this is still scarce. Further evidence is needed on the benefits of this and how this can be best achieved.
- Evidence on whether differences in land tenure are important for preventing land grabs is still thin. Further evidence on whether formalised customary land recognition is important as a means of protecting land against land grabbing is still needed, as is evidence on whether formal recognition of customary-held lands affects responsibilities of companies' to undertake consultation with local communities prior to making investments, which would lead to more equitable investments.
- In relation to the link between strengthened property rights and investment, further disaggregated country studies, focusing at the subnational and national level are needed in order to clarify the importance of titling in specific situations. In line with findings from the recent systematic review (Hall et al. forthcoming), these should pay attention to the levels of economic development, role of country institutions as well as local land tenure contexts, and avoid aggregating findings across diverse contexts, where they lose granularity.

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Annex 1: Experts interviewed for this briefing paper

The following experts were interviewed for this briefing paper. They were asked to provide their views on the evidence and recommend relevant literature.

Expert Name	Affiliation	Area of expertise
Dr Bina Argawal	Director & Professor of Economics Institute of Economic Growth University of Delhi	Gender and women's rights and Land Rights in South Asia; agricultural economics
Paul Mathieu	Senior Officer, Natural Resources Management and Environment Department, Climate, Energy and Tenure Division, FAO	Legal aspects of tenure of land and water; Voluntary Guidelines on tenure security and the work conducted by FAO
Prof Ben Cousins	Chair in Poverty, Land and Agrarian Studies, PLAAS	Political economy of agrarian change, especially small-scale agricultural producers (politics, economics); formalisation of customary land rights
Prof Wendy Wolford	Associate Professor, Development Sociology, Cornell University	Land property rights; landless movements
Prof Timothy Besley	School Professor of Economics and Political Science, LSE	Property rights – conceptual framework and micro evidence
Steven Lawry	DAI/ University of Wisconsin Land Tenure Centre	Property rights of land; communal property rights; land tenure reform processes; pastoralism