

Towards a Land Titling Framework for Improving Rural Livelihoods

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Key words: Land Titling, Land Reform, Land Tenure Security, Sustainable Development Goals

SUMMARY

The continuum of rights model developed by UN-Habitat describes different forms of relationships that humankind has with land. These rights range from the informal to formal continuum. It is the less formal rights that are of major concern especially in the developing world as they are in most cases neither officially registered nor documented in customary areas. This brings forth various land administration problems to include difficulty in managing natural disasters and land resources. The absence of land registration in customary tenure areas has resulted in research in land titling as a method to move informal tenure arrangements to the formal domains based on the assumption that land titling improves land tenure security. Whether or not land titling is working has varied opinions in academic literature. The aim of this study is to determine factors influencing the misalignment between land titling, land tenure security and the improvement of the quality of life of communities. The second aim is to design a land titling framework that addresses these misalignments. This study reviews literature on land titling with land tenure security as the unit of analysis. We critically analyse the relationship between land titling and land tenure security including the extent of this relationship based on a systematic literature review. Based on issues in land titling for customary areas presented in academic literature, a framework for land titling is proposed based on the systems approach methodology. The framework addresses sustainable development goals 1 and 2 as it focuses on improving rural livelihoods through tenure security and community empowerment. Land tenure reform is a public infrastructure and should not be implemented in isolation of other developmental activities. The land titling policy framework needs to be aligned with the development goals of national and spatial development frameworks to ensure sustainability.

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1. INTRODUCTION

Despite the vast body of knowledge in land titling and available case studies, most land rights in rural areas still remain undocumented in the developing world partly due to lack of methods and institutions for executing this tenure reform (Sylia et al., 2018; Lengoiboni et al., 2019; Morales et al., 2019). Land reform coupled with the establishment of functional land markets can result in poverty reduction (Deininger and Binswanger, 1999; Galiani and Schargrodsy, 2010; Mendola and Simtowe, 2015).

Land titling is highly linked to potential improvement of agricultural productivity and economic investment of rural land due to more secure land rights (Deininger and Binswanger, 1999; Galiani and Schargrodsy, 2010; Abdulai et al., 2011). However, other studies such as (Payne et al., 2009) reveal that land titling projects have not been achieving their goals as land markets have not improved and neither have poverty levels. The outright benefit from this reform is land tenure security (Payne et al., 2009). Land titling is a form of ‘land reform’ or ‘land tenure reform’.

Land tenure reform manifests in different modes with varying strengths and at different positions in the continuum of land rights that include long-term leases (de Schutter, 2009), agricultural land consolidations (Zhang et al., 2014) and occupancy certificates. Weaker tenure arrangements include sharecropping (Bellemare, 2009) and undocumented usufructs. Land policy reforms are required to improve land allocation and development in rural areas (Ding, 2003). This requires learning from international developments and effecting institutional, financial and technical reforms above the internal and external policy changes (Ghawana et al., 2019). The results of land tenure reforms including the rights, restrictions and responsibilities need to be properly preserved through documentation in a dynamic spatial data infrastructure, which evolves as land information changes (Iban and Aksu, 2019).

While there are successes of land titling as documented in (Galiani and Schargrodsy, 2010; Mendola and Simtowe, 2015) poverty and hunger are still on the increase particularly in the developing world hence the introduction of the sustainable development goals (SDGs). The sustainable development goals relating to poverty eradication and “no hunger” are SDGs 1 and 2 respectively (Sachs, 2012).

This increasing poverty and hunger means the land titling exercises are either ineffective or there exists some mismatches with other institutions that lead to improved quality of life of communities. This study therefore aims to investigate the relationship between land titling, land tenure security and improvement of the quality of life of communities. From this investigation, the second aim is to develop a land titling framework that improves rural livelihoods, by addressing the deficiencies and gaps in current land titling activities.

2. METHODOLOGY

Land titling is an endeavour to provide a public good, which makes it a complex enterprise as it tries to appease actors with different socio-economic backgrounds. At some time, designing a land titling system can become a mess with compounding contestations among the different actors. Reynolds and Howell (2010) explain ‘messes’ as serious implications involving many people with different takes on issues thus presenting a highly uncertain situation. Messes defy conventional thinking (Reynolds and Howell, 2010), and because of the complexity of land titling with effects far reaching to society that are more than just holding a titling certificate, it needs a non-conventional scientific research approach. As expressed by Chapman (2004) and Reynolds and Howell (2010), such messes require systems approach methodologies. As Bawden (1998) explains, systems thinking approaches are based on holism and pluralism. Systems thinking approaches require the interconnectedness of parts to be presented as a whole. As noted by Checkland and Poulter (2006), Midgley (2003) and Ramage and Shipp (2009), one has to study and analyse the parts and how they are entrenched with holism philosophies as driven by pluralistic perspectives to get an understanding of the whole system.

The systems thinking approach provides for an exploratory process that enables us to make sense of real world situations that can be modelled and used to initiate change. To provide situations where land titling is sought to improve rural livelihoods, the study investigates the parts that glue the system of improving rural livelihoods through land titling together. To observe this, the study reviewed case studies that expressed relationships between customary tenure, land titling and security of tenure. The insights from the review are used to present a framework of land titling that may be useful in improving rural livelihoods and eventually helping developing countries to address SDGs 1 and 2. Going forward, the study is guided by insights offered by Reynolds and Howell (2009) and Checkland and Scholes (1990) on the systems approach enquiry process. It is critical to study worldviews of the systems parts in the problem situation in order to identify the meanings of the attributes to their perceived world, which then helps to determine what actions will be widely regarded as sensible and purposeful.

It is also noted that Literature reviews help “Dwarfs” novice researchers to gain knowledge by “standing on the shoulders of the giants” as stated by (Okoli, 2015), which is an analogy of creating knowledge from past research. As stated by Simbizi et al. (2014) in the support of (Kotiadis and Robinson, 2008) there is need for knowledge acquisition when researchers are generally seeking an intervention, by modelling or abstraction of a real world situation into models, frameworks or processes. This study seeks to develop a framework for land titling that embrace tenure security in customary and land resettlement areas. In order to develop the framework, information had to be acquired so as to scope relationship of customary tenure, land titling and security of tenure through a literature survey. A summary of the major documents and cases is given in table 1.

This study had two major limitations. The study limits itself to largely peer reviewed documents as is assumed that case studies reviewed would have made a comprehensive literature review to support the findings as results should have been verified before publishing, and because of the different cases being considered it may have been cumbersome. The second limitation is

the use of descriptive meta synthesis through narrative summaries. The research limits itself to such meta synthesis as it leaves room for more studies to be conducted.

3. ISSUES IN LAND TITLING

This section is based on an assessment of 15 articles presented in table 1 from a systematic search of literature, which sought relationships between customary tenure, land titling and security of tenure.

Source	Case Study Country
Unruh (1998)	Mozambique
Unruh (2006)	Mozambique, East Timor, and the Zuni-USA
Yaro (2009)	Ghana
Barry and Danso (2014)	Ghana
Sitko et al. (2014)	Zambia
van Leeuwen (2014)	Uganda
Murtazashvili and Murtazashvili (2016)	Pakistan
Honig (2017)	Senegal and Zambia
Muchomba (2017)	Ethiopia
Bambio and Agha (2018)	Burkina Faso
Agheyisi (2019)	Nigeria
Akaateba (2019)	Ghana
Fatema (2019)	Democratic Republic of Congo -DRC
Han et al (2019)	China
Zuka (2019)	Malawi

Table 1: Land Tenure Security Case Studies

It is argued and remains uncertain that land titling increases tenure security especially in the absence of appropriate policies and institutions. The study presented by (de Soto, 2000), reveal that tenure security and investments are increased through titling of land, whilst antagonists to this notion for example (Jacoby and Minten, 2007; Sitko et al., 2014) and others, believe that land titling has no impacts on productivity or tenure security. These arguments also affect the support from donor and multinational agencies that had advocated for land titling of customary lands. Initial drives for titling have been noticeable, but as more notions of depressed land titling utility emerged, the drive softened and shifted to more inclusive frameworks that recognised both customary tenure and formal land titling. As such, most developing nations have sought to use this hybrid framework to land tenure. As pointed out from this study, most developing nations have sought such a hybrid approach but with different results to its implementation, as shown in passages to follow.

The study presents such evidence through the lenses of land tenure security elements presented by (Abdulai, 2006) in the study that advanced discourse about land titling and tenure security in Sub Saharan Africa (SSA). These elements present the interplay between statutory institutions and customary institutions in delivery of land tenure within developing nations that

have both customary and statutory tenure administration systems. The study presents hybridity uncertainty because of scepticism and lack of utility in acquiring land title by the landholders. This relationship is explained against the elements of tenure security presented by (Abdulai, 2006).

3.1 Land Titling Policy Framework

In all the studies reviewed from table 1, there is recognition of the role of a hybridised institutional framework dealing with land titling on customary tenured lands when looking at tenure security. Mostly recognition is supported by statutory instruments within the different case countries of the studies reviewed. Though not all studies indicate state governmental support through statutory instruments with the most notable being (Murtazashvili and Murtazashvili, 2016), 13 of the studies reviewed indicate recognition of customary authority where this is backed by both statutory acts and the constitution. The most recent is that for Malawi as explained by (Zuka, 2019), which tried to be inclusive and cognisant of gender issues. Michalscheck et al. (2019) further design a framework to promote equality in land use decision making at household level.

The statutory laws support customary land and provide descriptions of the different tenure arrangements and highlight the customary lands falling in particular jurisdictions, to defray them being misconstrued. A case is noted by (van Leeuwen, 2014) of the ambiguity of the term “customary”. Another variation is presented by (Han et al., 2019) where customary chiefs are often appointed as administrative staff to implement state laws, especially in areas with inadequate government officials. Such quasi government activities lead to ambiguities in the system and land documents are often issued based on customary laws rather than the state legislation. Because of Chiefs being community leaders and often politically motivated; this can make them depart from traditional laws and allocate land to the powerful and influential families.

3.2 Leadership and Administration

Noticeably all customary laws fall within Chieftainships with their sub hierarchies, family leaders, community elders and community leaders (mostly elected councilman) hence customary authority follow blood lines and ancestral lineages. In some instances, Religious leaders are given customary authority as noted by (Honig, 2017) in the Senegal case and (Murtazashvili and Murtazashvili, 2016) for the Pakistan case. Recognition of these customary leaders in whatever form should be a sign of confidence by the central governments on trusting the leaders as part of social government systems thus increasing confidence in the decisions they make in an adjudication process. This should be the case as most agricultural lands in developing countries are within customary administered land, where (Bambio and Agha, 2018) records as much as 67% of family owned land in Burkina Faso and (Akaateba, 2019) has recorded as much as 80% being Ghana’s land held by customary authorities. This trend is synonymous with most of the studies reviewed.

The customary authority decisions are supported by local and central government agencies who officially record, administer and manage land titles for all titled land. These governmental agencies are similar across the studies with the most elaborate description given by Akaateba (2019) and van Leeuwen (2014), as the agents include spatial planners, surveyors, land administrators, the judiciary and local development committees among others. Ironically all studies revealed a deficiency of the hybridised institutional framework between the customary agents and the local and state government authorities. This deficiency is compounded by the uncertainties in the different roles played by the agents both statutory and customary as elaborated in (Sitko et al., 2014). As presented in (Barry and Danso, 2014), collusion may be at the state agents failing to recognise authority and legitimacy of a customary agent as noted “Conflicts manifest in boundary and ownership disputes between stools, and between families (clans) within the same stool”.

3.3 Land Tenure Security

Customary tenure systems across the different cases in table 1 empower traditional leaders or chiefs with fiducial rights that enable them to hold land in trust of their families and subjects. This fiducial role is misconstrued to mean total ownership of the land by the chiefs and even the subjects (Akaateba, 2019; Barry and Danso, 2014; van Leeuwen, 2014). The fiducial obligation is delegated through councilmen that are normally family leaders and village elders within a territory; who sit and agree on courses of action regarding land related decisions. One example is a case presented by Han et al. (2019: p.282) where "rules made by village committees are more prestigious and effective [that they even exceed] formal laws and policies".

This obligation should be a control mechanism and members should desist from authoritative control of customary lands. These councils are seldom constituted by privileged family heads and elders who are indebted to village heads, as they have been awarded powers to act accordingly, which presents a problem in administration of land. Traditionally, the council can only plead with the chief/head and not to directly criticise him/her as this is interpreted as an act of disobedience or treason, which may mean banishment from the customary roles. Akaateba (2019) stresses this point with some interviewees pointing out that “the chiefs word is final”.

On one hand, the authoritative trust might be good for the chief to protect his/her land from alienation, but mostly as reported in the cases reviewed, the trust is abused as the chiefs are the ones alienating the customary lands from development resulting from land tenure reform (Deininger and Binswanger, 1999; de Soto, 2000) as authority would in most cases shift to municipalities. Such actions are detrimental to land tenure security as the chief chooses what to do with the land without any participation from the subjects (Sitko et al., 2014). Barry and Danso (2014) presents a case where one powerful leader sold customary held land. This is a weak form of governance which gives the chief authority on how land should be used and protected.

Weak governance structures and institutions are detrimental to protection of land titles as explicated by Barry and Danso (2014) and Fatema (2019), hence impacting negatively on security of tenure. Though contestations have been reported by Akaateba (2019) and supported by Barry and Danso (2014), chiefs are powerful because of their connections to the politics of the land, and weak customary and statutory institutions amplify the insecurity of right holders. There is a dire need to improve the governance systems with agreeable statutory instruments that support customary authority and making leaders accountable for decisions outside their jurisdiction. This then will help to protect land titles, by preventing authorities from expropriating land for speculative purposes.

There is now widespread refocusing of customary land tenure systems (Akaateba, 2019), where scarcity and competition for land has led to a contestation between the statutory institutional requirements and localised customary standards when protecting property land rights. It is noted that the refocusing is not embracing deliberated strategic alliances, where gaps between the customary institutions and state institutions are noticeably widening as more customary land is commodified (Akaateba, 2019). What it means is both statutory and customary authorities should communicate and consensually agree on how real property is secured in this increasingly customary land commodification state. Such state of affairs is presumably blamed on statutory regulatory processes by the customary authorities. Consequently, indigenes are losing out as more land is bought by non-natives who have the ability to pay for the land and this seldom leads to resistance by the natives, who may forcefully protect their land. Such narratives present insecurity in both cases, as land rights are not guaranteed for both natives and non-natives.

Akaateba (2019) reports that the continued commodification will elbow out natives out of their birth places, hence cutting their family inheritance privileges. But at one hand commodification of land has led to women participation in land transactions (Muchomba, 2017), as such leading to acquisition of property rights through titling, though a disequilibrium is still noticeable as presented by (Han et al., 2019). The customary authority actions may be deliberate to protect vulnerable subject rights from the powerful and rich subjects; but this may be insignificant since most of the studies show that family owned land tenure is the most prevalent in customary areas than acquired, one example being in (Bambio and Agha, 2018), with 67% of family owned customary tenure than 1% acquired customary tenure in rural Burkina Faso. Hence, more communicative efforts should be instilled to participative land titling programs that strengthen tenure security for the natives, and maybe the benefits of secured tenure may accrue in these customary regions as advocated by De Soto (2000).

Ideally land titling in tenure systems is supported by different documentation (depending on the nature of rights being held), hence for ownership rights, title is supported by a title deed stamped, registered and secured by governmental authorities. The studies that are reviewed in this paper use different forms of documentation (formally and informally) for recognition of ones right to a certain property. As stated by Agheyisi (2019), land titling of customary lands (in peri-urban Benin City, Nigeria) is progressively supported through the use of witnesses to land transactions, which then is extended by issuance of development receipts when one pays all development fees/levies and eventually approaching legal practitioners to draft deed of

transfers for that piece of land. In a way, these practices have improved security of tenure as they serve as evidence to land transactions and dispels reason for eviction especially by customary authorities.

However, more often these customary tenure documentations are not always accepted by statutory authorities. This was exemplified by Murtazashvili and Murtazashvili (2016: p.233), where deeds proving customary land ownership for most Afghans are not the official documents recognised as valid by the government, hence the need for aligning land titling to national government functions. This had detrimental effects to women holding land rights. The studies reviewed here have indicated that women have the least protection under customary tenure with an example being Han et al. (2019), and because of warped fortification of tenure documentation, they are always at the wrong receiving end. Bambio and Agha (2018: p142) contends that “women have fewer incentives to initiate a stronger land right processes in rural Burkina Faso”. Han et al. (2019) extends this notion where 29% of registered land contract certificates have women names, since in most cases statutory authorities register the male family members’ name on those certificates. Evidence is also drawn out within the reviews where immigrants/non-natives are affected because of the impotent customary documents to the statutory authorities or ‘vice versa’. This calls for customary and statutory institutions to coproduce and present fungible and compatible documentation from both sides that can protect title for everyone regardless of gender and indigeneity.

Barry and Danso (2014) state that seldom do customary and statutory tenure rules conflict and contradict as expressed previously in (Törhönen and Goodwin, 1998). Pointedly, customary authorities have an issue with statutory authorities, where they all fail to agree on tenure frameworks especially when government expropriate lands. This can be a cause for contestation even if the land is officially planned, surveyed and eventually titled. The customary authorities may disregard such orders especially on land reserved for future uses. This is supported by Agheyisi (2019) where it is reported that encroachment into commercial and industrial layouts not yet developed, is rampant especially when the customary authorities claim that the expropriated land was forcefully and illegally acquired without due compensation. This presents a dissonance between customary and statutory authorities when agricultural land is expropriated for urban development. This study will encourage a framework where consultation and consensus is afforded for acquisition and registration of expropriated customary land for urban or agricultural purposes. Nevertheless, more importantly, the subjects or indigenes will always stick together when protecting their rights.

Barry and Danso (2014) and Unruh (1998; 2006) points to interviewees who stated that more than everything, primary evidence will always prevail in a dispute, where oral tradition and oral history will take precedence than registration and registered titles which are not perceived as useful in the family compounds. Evidently in another case, because of such strong alliance to primary evidence which is a form of customary privilege as explained by Honing (2017) titling is done after land boundary adjudication through witness evidence. Though such evidence is said to work, evidence alone may not be enough to secure customary title, interestingly those with such tenure are the most perpetrators of violent conflicts than those with secured statutory

title as shown by Fatema (2019), because of discontent and having low opportunity cost of engaging in conflict. Showing that those without formal title will always be defensive and being prepared for a showdown whenever a conflict ensues. Hence, to dispel doubt, customary and statutory institutions should coproduce standing orders that are used when confirming and protecting title for both indigenes and aliens while being gender sensitive, that are acceptable to all to dispel conflicts.

Financing of titling is one issue that is ambiguous from the different cases reviewed. Agheyisi (2019) states that financing is through development levies, where the customary authorities with allodium rights move forward to create sub-divisional layouts as stipulated by the statutory authorities. One notable case is that presented by Muchomba (2017) for Ethiopia where the state was deliberate to make land registration and titling costs to be very minimum. In the different cases presented the state is disjointed from the customary authorities, as each demands different requirements that definitely drive cost of acquiring title. The state is guided by its statutory requirements whilst the customary authorities are guided by their customs (of which these customs have been monetised instead of them being appreciation gestures). Different cases show this tokenism and Agheyisi (2019) explicitly presents this confusion. The plot owner or developer is made to pay development fees and other sundry levies which are then used to cover payments for plot measurement, beacons, road construction and so called “drinks” for community elders, often without being accountable to anyone. In most of the cases presented payment of development fees and levies is a customary process for land legalisation and regularisation as no development would be allowed to take place without the payment of these fees. This is a tokenistic approach favouring the customary authorities to dictate development according to their locally adopted standards, that are usually far from the stipulated national standards as evidenced by disorderly development patterns. Enforcement of these is through coercion, as reported by Agheyisi (2019), where different, sketchy, fuzzy and unjustified levies are demanded for different stages of work, and it is uncertain when one fulfils the requirements. This is an impediment to land titling as it lengthens the process of acquiring a development certificate/receipt and later to get a title deed.

3.4 Moving forward

Consequently because of the warped customary tenure systems presented in the cases, there is continual commodification of customary held agricultural lands to residential and industrial lands which mostly benefit the leaders instead of the whole community. There is need to think far and wide, while embracing multi perspectives on how to improve the situation so that rural livelihoods can be changed for the better. This further extends the need for a systems approach towards a land titling framework. Because of the presented insecurities of the land, it is difficult for the indigenes (and the vulnerable groups in particular) to invest on their land fully to improve their livelihoods. Most investments will remain for subsistence purposes only because of the uncertainties in tenure regimes. Away from commodification of the land, change that promote sustainable “agriprenurship” (that is entrepreneurship based on agriculture) needs to

be embraced by the different authorities so as to improve their livelihoods. This is to embrace environmental reforms that advance sustainable use of land for far reaching changes which can be felt nationwide than only thinking locally. There is need to systematically think on how land titling will improve the environmental situation, to embrace agripreneurship supported by various investment and marketing platforms so as to improve rural livelihoods which eventually has an effect to a nations food security status. Synergies are to be drawn to seek partnerships between land titling and environmental reforms to advance entrepreneurship through different financing mechanisms within customarily held lands.

4. RESULTS: TOWARDS A LAND TITLING FRAMEWORK

4.1 Introduction

This results section presents working frameworks for land titling developed based on land administration principles and the systems approach methodology. The frameworks are presented in a hierarchical manner from specific and more detailed to generic or abstract. Figure 1 shows detailed system components of the land tenure reform framework in which ‘land titling’ is used as an example. Figure 1 is the framework that addresses the second aim of this study. Figure 2 shows land tenure reform as a component of a policy framework that is part of other socio-technological systems. Holistically, the diagram shows the total infrastructure for tenure reform. Figure 3 shows the required alignment of land tenure reform framework to sustainable development goals and national government objectives. The alignment starts at municipal level to national level with guidance coming from the SDGs.

This section commences with a definition of key phrases as they are applied to the proposed frameworks: *Land tenure reform* refers to activities tailored towards changing land tenure systems in order to improve tenure security through sustainable tenure systems; *Agrarian program* is an intervention with an objective to educate farmers on sustainable farming practices and equip them with entrepreneurial skills so that they can explore the commercial farming market; *Environmental reform* refers to socio-ecological thinking, which improves land use management through policies and practices that deter from environmental degradation; *Land policy* refers to the blueprint detailing land tenure systems, land use management, sustainable development issues among others leading to optimum utilization of land and *National government objectives* refers to the short and long term strategic plans of government which is aligned to the sustainable development goals.

4.2 Infrastructure for Land Titling

Failure of land titling exercises is partly due to mis-alignment with national development objectives and lack of supporting community empowerment programs and policies. In this section a land tenure reform framework based on land titling is proposed that addresses this mis-alignment and the implementation of land titling exercises as isolated projects (see figure 1). Land administration systems are public good infrastructures (Bennett et al., 2013) and land tenure reform should be viewed as such.

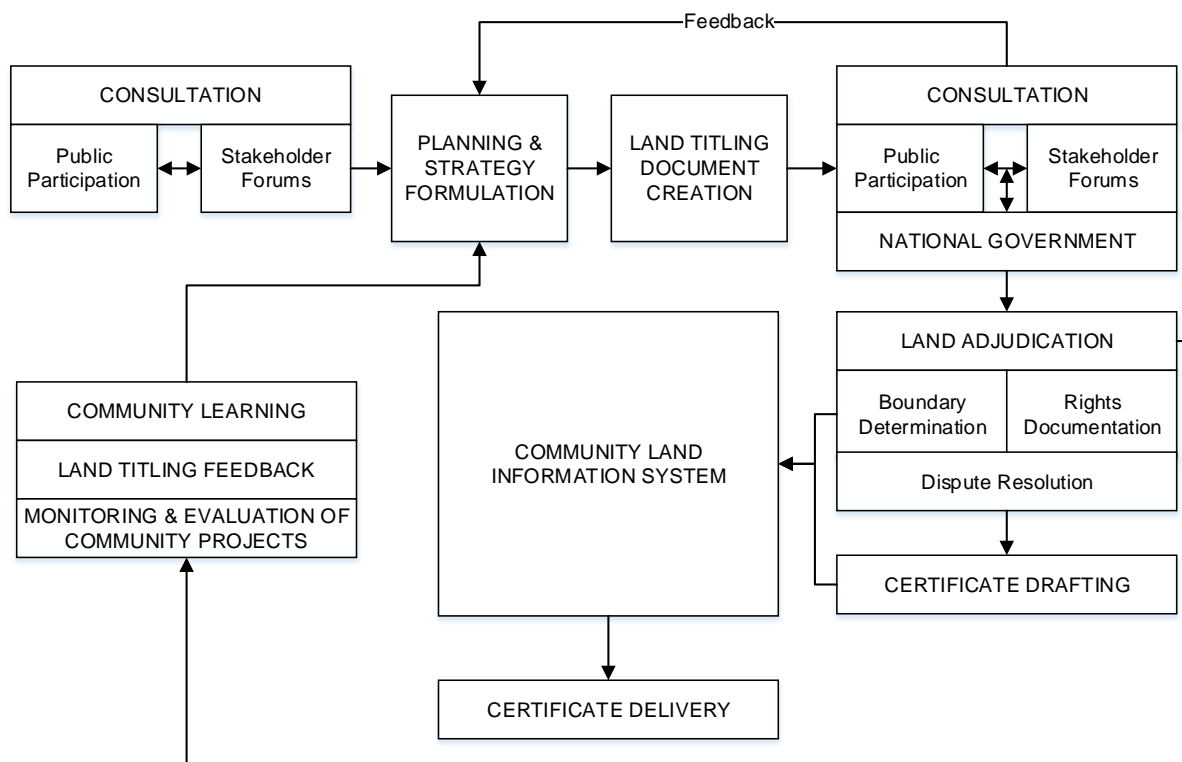


Figure 1: Land Titling Framework - Based on concepts from (Unruh, 2006; Lemmen et al, 2009; Kurwakumire, 2013; Barry & Danso, 2014; Sitko et al., 2014; Iban and Aksu, 2019; Morales et al., 2019)

The land titling framework presented in figure 1 is a process comprising multiple steps or a system comprising of many system components in accordance with the systems approach methodology. This procedure is governed by consultation from the public and stakeholders covering system components presented in figure 2. Striking a balance between the needs of the public and stakeholders including national government on the outcomes of land titling and its conduct or execution is then done. From this consultation, a strategy is developed and sample documents that will be used as proof of title or rights to a portion of land are generated by the land registration experts. These outputs of the prior process are taken back to the public, stakeholders and national government for consultation and if there are issues, then the strategy and documents are refined. Only when all parties are satisfied or a compromise has been met can then the land adjudication process begin. This involves low cost boundary determination (van der Molen, 2005; Lemmen et al, 2009; Kurwakumire and Chaminama, 2012) and recording of rights (Zevenbergen, 2004). This simultaneous boundary mapping and documentation of rights is recommended in (Morales et al., 2019) who further discuss the training of landowners to capture boundaries by themselves in order to speed up the land titling process. Certificates are then issued to land owners and stored in the community land information system together with other rights, responsibilities, responsibilities and other land related information as recommended by (Iban and Aksu, 2019). The issuing of certificates is important because they are primary evidence in the case of land disputes (Barry and Danso, 2014, Unruh, 1998; 2006).

Figure 2 depicts the infrastructure that supports land titling through different components. These are land tenure reform, agrarian program and environmental reforms supported by entrepreneurship and financing programs. The reform of multiple components (institutions, policy documents and programs) related to land tenure change in order to develop better frameworks is recommended in (Ghawana et al., 2019). The individual components require partnerships from different stakeholders to effectively function while the land tenure reform process as a whole is governed by the land policy. Land tenure reform should not be viewed as a one-time activity but a continuous process until its objectives have been met hence the cyclical nature depicted in figure 1 enabling practitioners to learn and improve from the feedback from the system.

The land tenure reform component in figure 2 details the nature of the land titling exercise that would be conducted including the boundary determination, the nature of rights being documented or transformed and the recording of land rights procedures. The scope and objectives of the land tenure reform are stipulated in this component. The reform should address a societal problem such as poverty and hunger as stipulated in the SDGs 1 and 2 or even gender equality in access to land that is part of SDG 5 as documented in (Sachs, 2012).



Figure 2: Land Tenure Reform Infrastructure

Agriculture has been a primary economic activity and source of income (Deininger and Binswanger, 1999) in rural areas and normally farming is viewed as a skill that is passed on from generations to generations as land changes hands in the same manner through inheritance. The major land use after the land tenure reform is likely to remain agriculture, which makes the agrarian program component of importance. While the community has been practicing agriculture for centuries, it does not mean farming is being conducted in a sustainable fashion

as in most cases, it has been for subsistence purposes. The agrarian program component equips the community with methods of practicing agriculture in a sustainable manner, which is commercial farming while creating employment. The agrarian program requires the support of financial institutions and entrepreneurship educators who are stakeholders of the financing and entrepreneurship programs respectively (see figure 2).

Land tenure reform and the agrarian program have an impact on the environment and thus benefit from a supporting environmental policy tailored towards achieving socio-ecological sustainability as suggested in (Michalscheck et al., 2019). Some literature has associated customary tenure with environmental degradation such as and depletion of other resources such as fisheries through over-exploitation as the tragedy of the commons concept detects (Feeny et al., 1996; Ostrom, 1999). There is need for sustainable environmental management practices to ensure sustainability of the land tenure reform program. These include forest restoration and climate change mitigation programs which are normally non-existent in rural areas (Alexander et al., 2011). These are embedded in the environmental reform system component in figure 2 and in the spatial development framework, integrated development plan and sustainable development goals systems in figure 3.

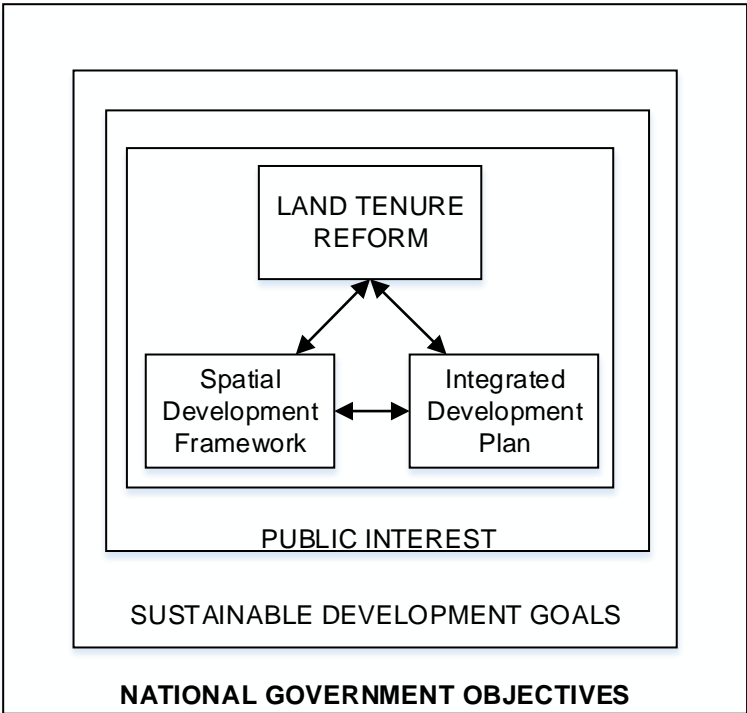


Figure 3: Sustainable Land Tenure Reform

Entrepreneurship programs (figure 2) provide multiple options for creating business activities other than farming particularly for the youths. These are presented as separate alternatives to poverty eradication and achieving SDGs 1 and 2 other than the establishment of land markets after the land reform exercise suggested in (Deininger and Binswanger, 1999) as they enable optimum use of land for economic activity.

Agrarian, entrepreneurship programs and even the land titling exercise itself require financing. Financing is accessible from government and the banking sector based on agreements and stipulations in the land tenure reform policy framework stipulating the nature of lending or capital financing and repayment options that are affordable for farmers depending of the socio-economic backgrounds.

The view of a land titling framework as a public good infrastructure makes it a complex phenomenon involving many stakeholders whose partnerships are crucial to meeting the objectives of land titling projects. Partnerships are responsible for educating communities, fund raising and creating investment projects.

Clear land policy gives room for communities to access credit from financial institutions while using their land as collateral after title documents have been issued (Antwi-Agyei et al., 2015). The land policy links all the components in figure 2 so that they operate as one entity and not individual units. The land policy will address the weak governance issues presented in (Akaateba, 2019; Barry and Danso, 2014; Fatema, 2019) through clarifying leadership, land administration issues and procedures for accessing funding from financial institutions among others. Quality governance is crucial for achieving SDGs 1 and 2 (Sachs, 2012). Land policy reform can stimulate positive change in rural livelihoods through fostering rural development and effective land titling mechanisms (Ding, 2003).

The land reform program should be interconnected to the spatial development framework and integrated development planning so that spatial planning principles will apply (see figure 3). This enables the land titling vision objectives to fit within the greater spatial planning vision of the municipality. The land reform exercise should reflect public interest where government wants to address shortcomings preventing achievement of sustainable development goals. In totality, land tenure reform should fit into the objectives of national government as a necessary vehicle for improving rural livelihoods.

4.3 Summary of Land Tenure Reform Challenges

There lacks uniformity in legal frameworks and the level at which they are implemented and the responsible administrators. Administrators range from land officers to chiefs with various forms of legal pluralism, which present administration and land custodian challenges. Conflicts also exist between the formal and informal systems bringing further challenges in effecting land titling exercises (Törhönen and Goodwin, 1998). The separation of land titling from other policy frameworks presents a challenge where land reform activities are carried out in isolation of related activities such as the agrarian reform.

The value of land tenure security, an intangible titling benefit, is seldom perception based thus making it subjective and difficult to measure. The impacts however can be measured, with indicators designed for SDG 1 and 2 based on agrarian and entrepreneurship projects that result from the land reform. This further requires land titling to be carried out as process, rather than a one-time activity whose success is monitored and improved through feedback from learning from its milestones and lack of milestones.

Chiefs exert considerable influence outside their local domain, and draw politicians, high-ranking officials and judges into chieftaincy politics. The fiduciary obligation is codified in law, but traditional leaders who abuse their position are seldom held to account. Conflicts manifest in boundary and ownership disputes between stools, and between families (clans) within the same stool with indiscriminate grabbing and sale of stool and family lands to strangers and commercial entities by traditional leaders also occurring (Barry and Danso, 2014).

5. CONCLUSIONS

The aim of this paper was to design a land titling framework based on feedback from challenges in land tenure reform. This was achieved through a realization that the land policy supporting land titling should be viewed as a public infrastructure and not as an isolated government project. The overall aim of land tenure reform should be on improving rural livelihoods through eradicating poverty (SDG 1) and hunger (SDG 2). This requires land tenure reforms to be implemented parallel with community empowerment problems that unlock the economic potential of rural land. Land tenure reform, if implemented effectively empowers societies in an economic sense. There are however several reforms that have to be effected which deal with use of land and the environment. These include agrarian and environmental reforms. The land tenure reforms should be supported by spatial development frameworks and integrated development plans so that development in these areas is not in isolation from what is existing.

The land titling document is not an end in itself. It may be evidence that people cannot be evicted from their land but that is not sufficient for achieving SDGs 1 and 2 and improving the quality of life of rural people. All stakeholders should be part of this land tenure reform and the documentation should be sufficient for financing of projects to be accessed from banks.

There has been a vast body of knowledge in land titling, but there exists a gap between research output and actual implementation projects. Land reform exercises should promote public participation, learning, and improving from experiences. Land tenure reform is context dependent and has to be customized to suit different local situations to better serve communities while addressing the national development goals of a country. Land tenure should serve public interest through addressing socio-economic challenges in a sustainable manner. Future work will be on the expansion of the land tenure reform framework in this study to map sub-processes, actors and their roles and interactions upon which field application can be tested for multiple case studies.

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