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WORKING PAPER

A framework for sustainable land redistribution to ensure water and land tenure security: Focus on South Africa

by

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Abstract

Land and water resources are vital resources that sustain rural livelihoods and are critical for rural development as they form the basis of agriculture, the main economic activity for rural communities. Redistributing land without considering the interconnectedness of land and socio-ecological systems could compound existing challenges of food and water insecurity. We developed a framework for sustainable land redistribution, taking into consideration the broad and intricate interlinkages between water, land, and environmental resources. The framework, which is based on transformative systems that are necessary for informing policy- and decision-making on land distribution strategies, is designed to ensure the sustainability of both the agrarian reform and rural development. We highlight the role of land and water accessibility by all in ensuring equality, poverty reduction, job creation and rural development, topical subjects in most developing countries. The study focused on South Africa's land distribution plans and the implications on water and food security, as well as rural development. Land redistribution has the potential to increase the adaptive capacity of rural communities to climate change, enhance their resilience, and provide pathways towards Sustainable Development Goals (SDGs). An effective and sustainable land redistribution in achieving sustainable rural development is dependent on the adoption of transformative approaches and the recognition of the interrelationships between land, water, and environmental resources.

Keywords: Water and food security; land reform; sustainability; nexus planning; rural livelihoods

1. Introduction

The high levels of poverty in rural areas of many developing countries are mostly due to historical imbalances that include human displacement and inequitable distribution of land and water resources (Basiago, 1998; Griffin et al., 2002). These historical imbalances have caused serious tensions and even conflicts in many parts of the world (Stewart et al., 2002). To reduce poverty and conflicts, and share resources equally, there is an urgent need to redistribute land and water resources equitably, from current users to indigenous and previously disadvantaged groups (Kepe and Hall, 2016). Land redistribution programmes are meant to address the many years of colonial and apartheid policies that gave preferential treatment to a specific group of people. The need for equitable access to productive assets highlights the fact that without this access to water and land resources the poor will always have less economic flexibility and opportunities, and will always remain vulnerable, not only to economic pressures but also to issues related to basic human rights (Chikozho et al., 2020; Lundvall and Lema, 2014).

In South Africa, colonial policies displaced more than 15 million indigenous people by placing them in overcrowded former homelands where poverty is widespread (Weideman, 2004). Former homelands, also called Bantustans, are areas allocated to indigenous black people during the apartheid era and are generally poorly resourced, with an average landholding of about 2 hectares per household (King and McCusker, 2007; Weideman, 2004). Estimates indicate that over 40% of people living in former homelands live below the poverty line as agricultural output is very low (Weideman, 2004). Agricultural production in former homelands accounts for only 6% of the gross value of agricultural production (Greyling et al., 2015). This is quite opposite within the commercial agricultural sub-sector where there are vast tracts of lands per farmer on with a sufficient resource base (Khapayi and Celliers, 2016). Therefore, there exist significant variations in the agricultural productivity of former homelands due to inequalities in the distribution of natural resources, which impact households (van Koppen et al., 2017).

Lack of access to water and land resources has caused the disadvantaged to perennially remain poor as the situation forces them to accept low-paid jobs and therefore tend to suffer from poor health and low levels of education and training (Lundvall and Lema, 2014). Lack of access to water and land resources have been noted as some of the issues frustrating smallholder farmers to abandon their farming activities and start looking for work or generating income in none agriculture sector especially in rural provinces such as Eastern Cape, Limpopo, KwaZulu/Natal etc. A key component of rural development in any society is access to land suitable for agriculture and to water for irrigation by smallholder farmers who have always remained disadvantaged (Chikozho et al., 2020; Khapayi and Celliers, 2016). The consequence has seen the poor perpetually remain immersed in the poverty cycle, which prevents them from building the social capacity necessary to implement public participation in water resource management (Razzaque and Kleingeld, 2014). Apart from constraining progress towards Sustainable Development Goals (SDGs), inequalities in land and water access could be dire and may cause undesired social ills, and therefore requires immediate redress (Cipollina et al., 2018).

In as much as there is a need to address these historical imbalances, land redistribution policies and programmes should consider the intricate interlinkages between land and water (Mpandeli et al., 2019). Failure to understand the broad and intricate nexus between water and land resources could actually exacerbate food and water insecurity (Nhamo et al., 2020a). One of the main challenges facing many developing countries is to facilitate a more equitable distribution of land and water resources as a precondition for poverty reduction and widely shared economic growth (Bjornlund, 2009). In South Africa, for example, water and land reform policies have been embedded within a complex socio-political and socio-economic environment, and yet have occurred largely independently of one another (Chikozho et al., 2020; Pienaar, 2015). The non-integration of reform policies with the linkages between water and land resources often causes challenges to successfully implement land and water management reform programmes (Pienaar, 2015). A concerted multi-stakeholder and multi-sectoral effort is required at all levels, from the local to the national, if integration is to be operational and implementable (Netshipale et al., 2017; Nhamo et al., 2020a; Nhamo and Ndlela, 2020). South Africa has developed policy frameworks that acknowledge integrated and transformative approaches to achieve a sustainable land reform programme (Chikozho et al., 2020; DALRARD, 2010; Kloppers and Pienaar, 2014).

There is therefore a need to align land and water reform programmes at both the policy and programme levels, as both programmes are the cornerstones of rural development strategies (Nhamo et al., 2018). Addressing this integration requires policy and decision-makers in the land and water sectors to work together in formulating coherent and integrated strategies and policies that result in sustainable rural development and ensure water and food security. One such strategy to achieve sustainability in land redistribution programmes is to adapt transformative approaches such as nexus planning, sustainable food systems, circular economy, and scenario planning that guide the formulation of coherent strategies for sustainable rural development (Nhamo and Ndlela, 2020). We, therefore, developed a framework to guide policy on pathways towards the sustainable implementation of land reforms programmes without compromising national water and food security in South Africa.

2. Methods

2.1. A conceptual framework for a sustainable land distribution

Figure 1 is a framework providing pathways towards sustainable rural development during land redistribution programmes. The framework is based on the recommendations

of the Presidential Advisory Panel on Land Reform and Agriculture (PAPLRA) that acknowledges an integrated approach in land reform and that land and water are central to South Africa's quest for social justice and sustainable rural development (Mahlati et al., 2019). Land and rural development policies in South Africa are framed to address inequalities in land distribution and thus aim to restore dispossessed land rights (restitution), improve the rights of those with insecure land tenure (reform), and transform the racially biased land ownership patterns (redistribution) (Clements et al., 2021). The framework addresses the pathways that lead to sustainable land reform and rural development.

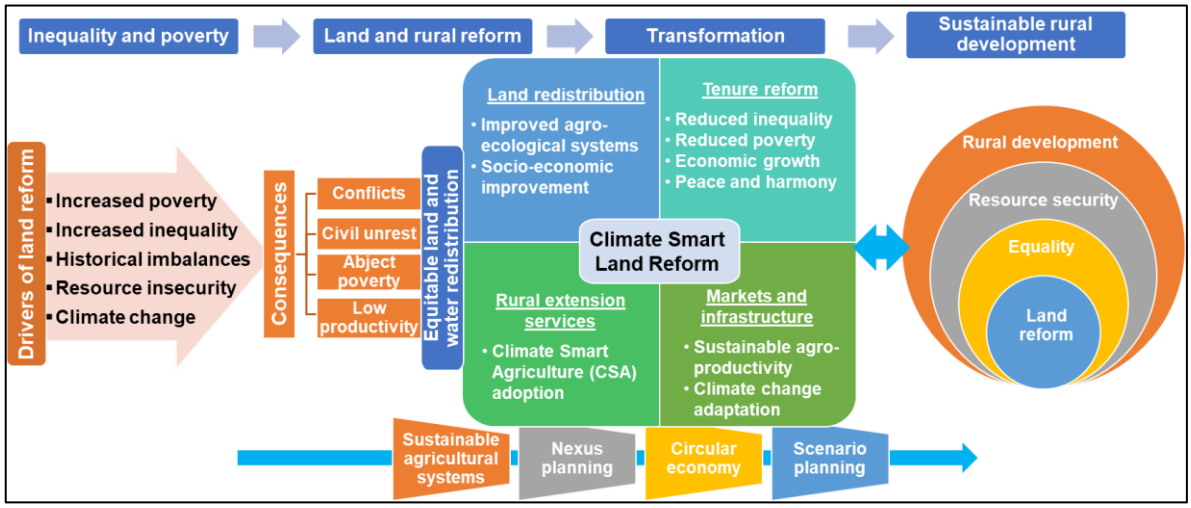

Figure 1. The conceptual framework towards a sustainable land reform and rural development

Based on this background, we identified four thematic areas that accompany and drive successful land redistribution that include (i) the identification of the drivers of land reform (inequality and poverty), (ii) the need for land and rural reform, (iii) sustainable rural transformation, and (iv) sustainable rural development (Figure 1). The framework recognises that land reform is not only about agricultural outcomes and transferred ownership of land but should also consider the associated socio-ecological aspects and beneficiary aspirations and capabilities. Therefore, a successful land reform programme should recognise the intricate relationship between water, land, and socio-ecological aspects (Figure 1), otherwise the initiatives will only aggravate existing challenges of water and food insecurity. This nexus is evident through the intimate interlinkages between socio-economic development and human and environmental health (Nhamo et al., 2020b). The way land is used today influences ecosystem functions, which in turn determines future land use options (Schößer et al., 2010). This brings the concept of sustainable agricultural systems, which is linked to other transformative approaches like nexus planning, circular economy, and scenario planning (Nhamo and Ndlela, 2020; Therond et al., 2017).

The framework offers detailed, practical, and integrated insights, from multidisciplinary perspectives, on achieving sustainable rural development through informed climate-smart

land reform programmes that will improve the resilience of rural communities. This study provides a stepwise description of each of the thematic areas of the framework.

3. Results and discussion

3.1. Inequality, poverty, and land redistribution

Land and water-related inequalities are central components of the wider societal inequalities inflicting communities worldwide today (Wegerif and Guereña, 2020). These historical imbalances break the social fabric and impede socio-economic development as they directly determine the quality of life for billions of rural people who rely on land and water resources for their livelihoods (Hull et al., 2019). Land and water inequalities aggravate poverty levels, increase social inequalities, compounded resource insecurity, with the potential to cause conflict and social unrest (Mahlati et al., 2019). This is usually associated with the concentration of income and wealth to a minority, which results in numerous economic, social, and environmental consequences. The dire situation requires immediate and urgent redress through coherent land redistribution policies and strategies that lead to sustainable rural development before regenerating into civil unrest. These policies should not only focus on agriculture but also consider individual capability and the socio-economic and ecological factors and climate change as informed by science (Clements et al., 2021). This is fundamental in that land redistribution is not only about farming and land ownership, but it should be noted that it cascades into other interlinked issues such as resource security and environmental and human health and sustainability.

Apart from socio-economic and ecological factors, land and rural reform policies should consider the role played by women in rural agriculture and the eradication of hunger in rural communities. Rural women, particularly in developing countries, form the majority of people who depend on agriculture for food and livelihoods and have been pivotal in job creation in the agro-processing industry (Jabeen et al., 2020). In areas where land is equally distributed it has contributed to the formation of more equal societies that promote sustained growth and development on more solid foundations (Wegerif and Guereña, 2020). South Africa has promulgated several legal frameworks to redistribute land equitably. The frameworks consider the intricate interrelationships between land, water, socio-economic, and environmental and human health.

3.2. National goals and legal frameworks related to land reform in South Africa

3.2.1. The Constitution of the Republic of South Africa

The Constitution of South Africa provides a framework for land reform, protection of property rights, and expropriation if it is in the public interest. To address the consequences of the legacy of apartheid concerning land, The Constitution includes the following three clauses (RSA, 1996):

- A person or community dispossessed of property after 19 June 1913 because of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to restitution of that property or to equitable redress.
- The state must take reasonable legislative and other measures, within its available resources, to foster conditions that enable citizens to gain access to land on an equitable basis.
- A person or community whose tenure of land is legally insecure because of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to legally secure tenure or to comparable redress.

The Expropriation Act (Act 63 of 1975) provides for the expropriation of land and other property for public and certain other purposes as defined.

The three key elements of the comprehensive land reform programme contained in the White Paper on Land Reform include restitution, redistribution and tenure reform which address the constitutional imperatives.

3.2.2. Vision 2030 and the National Development Plan

The National Development Plan (NDP) states that land reform will unlock the potential for a dynamic, growing, and employment-creating agricultural sector. The NDP bases land reform on the following principles (NDP, 2013):

- Enable more rapid transfer of agricultural land to black beneficiaries without distorting land markets or business confidence in the agri-business sector.
- Ensure sustainable production on transferred land by making sure that human capabilities precede land transfer through incubators, learnerships, mentoring, apprenticeships, and accelerated training in agricultural sciences.
- Establish monitoring institutions to protect land markets from opportunism, corruption, and speculation.
- Bring land-transfer targets in line with fiscal and economic realities to ensure that land is successfully transferred.
- Offer white commercial farmers and organised industry bodies the opportunity to significantly contribute to the success of black farmers through mentorships, chain integration, preferential procurement, and meaningful skills development.

Of note is the importance of the Land Redistribution for Agricultural Development (LRAD) program, which provides grants to landless farm workers and labour tenants to purchase land (DALRARD, 2001). The program does not mandate redistribution of land from rich to poor but rather operates through markets on a willing buyer–willing seller basis. While the state assistance is open and clear, the market basis of the LRAD program makes it less contentious, and more amenable to evaluation, than state-mandated redistributive reforms.

3.3. The transformative process towards a sustainable land redistribution

The urgent need for equitable land and water resource redistribution is necessitated by unequal accessibility of resources, which is compounded by overcrowding in marginalised lands dominated by indigenous people, as well as global warming (Chikozho et al., 2020; Kloppers and Pienaar, 2014). However, as already alluded to, the land redistribution process requires the adoption of innovative and effective transformative approaches that consider a cross-sectoral analysis of the interlinked socio-economic and ecological systems (Clements et al., 2021; Nhamo et al., 2020a). Therefore, central to sustainable land redistribution and rural development is Climate Smart Agriculture (CSA), a sustainable agriculture practice that embraces climate change and its three objectives, which include (a) sustainable increases in agricultural productivity, (b) climate change adaptation, and (iii) climate change mitigation (Rampa et al., 2020).

The framework given in Figure 1 considers the uniqueness of each land's socio-economic and ecological context, and that land redistribution is not just about ownership or land rights. Sustainable land reform is possible when it is context-sensitive and localised and not generalised, otherwise, the objectives will be futile. The implementation of land redistribution programmes should rely on expert advice and science evidence from a contextualised and localised point of view and based on the needs and capabilities of potential beneficiaries (Clements et al., 2021; Rampa et al., 2020). In the case of South Africa, extension services, who have extensive knowledge of the land under their jurisdiction, can provide important information on land beyond agriculture.

The first part of the relational matrix of Figure 1 indicates that a climate-smart and sustainable land redistribution programme improves the agro-ecological and socio-economic systems. This results in a sustainable agricultural system, a system that focuses on producing long-term crops and livestock while having minimal effects on the environment and ensuring human and environmental health (Therond et al., 2017). This is critical for reducing the risk of novel infectious diseases from wildlife due to the destruction of wildlife habitats owing to agriculture expansions (Nhamo and Ndlela, 2020). The process is made possible by the adoption of transformative approaches like nexus planning, circular economy, and scenario planning (Figure 1). The outcome of the process is an informed land tenure reform that reduces inequality and poverty, promotes equitable social and economic growth, and cements peace and harmony. This promotes access to markets by small-scale farmers and improves infrastructure resulting in sustainable agricultural productivity and enhances the resilience of rural communities to climate change. The framework promotes a cross-sectoral development and an integrated reform process between agrarian reform, land reform, and rural development. These interlinkages indicate the intricate relationships between the three

sectors, whereby any transformation on any one of the three should not be implemented independently from the other two (Figure 2).

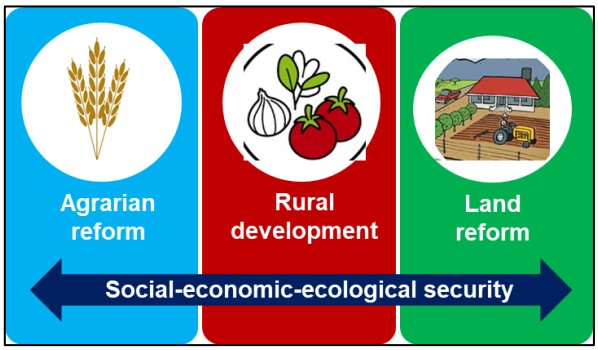

Figure 2. The interlinkages between land reform, agrarian reform, and rural development for a sustainable socio-economic and ecological security

Studies have shown the broad interlinkages between socio-economic developments, human and environmental health (Nhamo et al., 2020b; Scharlemann et al., 2020). The way humankind uses land has a direct impact on ecosystem services and has implications for future land use options (Kanianska, 2016). Therefore, the broad interlinkages in the three sectors requires a holistic approach to ensure sustainable rural development.

3.4. Expected outcomes of a climate-smart land reform.

The stacked Venn of Figure 1 shows the relational outcomes of a sustainable land redistribution programme. An informed land redistribution exercise should culminate in broader outcomes such as equitable access to land, resources security, and sustainable rural development in the long-term. An effective land reform programme (the innermost circle) is based on informed implementation of the various steps around it (Figure 1), taking into consideration the uniqueness of each parcel of land. Thus, it is a context-based land redistribution framework. The framework emphasises the identification of deserving beneficiaries with the capabilities to optimally use the land earmarked for redistribution. This is based on the knowledge that each land has its peculiar and unique characteristics and that not all lands are meant for agriculture. Apart from achieving equitable access to land by all, the process also safeguards the continued supply of ecosystem services and ensures sound human and environmental health.

Adopting transformative approaches in land redistribution programmes facilitates the formulation of coherent strategies that results in sustainable rural development that ensures sustainable resource use and management. The general outcome of an informed land reform programme that adopts transformative approaches is sustainable rural development and equitable access to water, land, and food resources, which culminates in job creation and economic development. Thus, a sustainable land redistribution is important in achieving SDGs, particularly Goals 1 (no poverty), 2 (end hunger), 3 (good health and wellbeing), 6 (clean water and sanitation, 8 (decent work and economic development), 9 (industry, innovation,

and infrastructure, 10 (reduced inequalities), 11 (sustainable cities and communities), 12 (responsible consumption and production), 13 (climate action), and 15 (life on land).

4. Recommendations

There is a pertinent need to envision transformative rural redress as a holistic process in which all components like land, water, finance, extension, health, education, social grants, and local planning, are included. This is derived from the perspective of the national challenges that are cross-cutting and closely linked (Nhamo and Ndlela, 2020). Focusing only on one challenge of land redistribution without its impacts on other sectors has the potential of transferring challenges to the whole spectrum of the economy (Mpandeli et al., 2018). Integrated and transformative approaches provide the potential to address cross-sectoral challenges that transcend equity, impacting on livelihood assets (Scoones, 2009). Transformative approaches are capable of addressing the whole spectrum of rural livelihoods, that is, the water and land-dependent subsistence strategies of the majority of the poor, and their genuine inclusion in large-scale enterprises, and all in between, as well as the whole range of technical options (Nhamo and Ndlela, 2020; Scoones, 2009).

Current challenges related to lack of access to land and water resources by the majority, compounded by climate change and the Covid-19 pandemic, have hit South Africa and other developing countries hardest. The challenge could regenerate into civil unrest or political opportunism if not given priority in the national agenda. Food and water insecurity and poverty are irrefutably linked and while overall global food production is sufficient to meet the needs of the world's growing population, food insecurity continues to affect over 820 million people globally (a majority of which are in Africa) (Smith et al., 2017). In line with this, after decades of neglect and rural displacement, there is a need for transformation and redress in the agriculture sector, to address both food security and rural livelihoods. Agriculture is a sector with the potential to drive rural development, not only in South Africa, but in Africa as a whole (Jayne et al., 2014).

The ever-expanding demand for food requires transformative policies that ensure food and water security in the future (Nhamo and Ndlela, 2020). However, food and water security are threatened by inequalities in land access and the increasing area of agricultural land being used for non-food crops such as biofuels (Gomiero, 2016; Popp et al., 2014). Other challenges compounding resource insecurity include degradation of agricultural land, the effects of climate change on agriculture and water resources, and the production decline in global fisheries and wild-harvested land species (Mpandeli et al., 2019). Present poverty and future food demand call for massive investments in sustainably managed agriculture and fisheries, but the environmental impacts of these investments are often poorly understood, and without a direct link to nature's services, these investments stand to have highly destructive environmental impacts (Mabhaudhi et al., 2018). Integrating ecosystem services into the development agenda is an essential part of viably addressing the challenge of food and water security. As land is also critical in addressing these challenges, land redistribution should consider these intricately connected sectors to achieve sustainable rural development.

5. Conclusions

Developing countries need to address inequalities in water and land resources urgently, not only to enhance the security of these resources but also to reduce the risk of civil unrest. However, policies and programmes related to land redistribution should be informed by transformative and integrated approaches to ensure the long-term viability of the agriculture sector and the sustainability of rural development. The adoption of transformative approaches provides pathways towards sustainable development and climate change resilience and adaptation. Of importance is the development of mechanisms that allow a transition from community to commercial farming and facilitate the coexistence of subsistence and commercial farmers. However, land redistribution should look into the capabilities of potential beneficiaries and consider the unique characteristics of each land parcel as all lands are not meant for agriculture. The emergence of sustainable commercial farms and/or large “model farms” can be a major factor in generating sufficient economies of scale to ensure adequate packaging, processing, and transportation infrastructure as well as marketing channels for output and supply channels for essential farm inputs. Surrounding subsistence and community farmers can then benefit from such supply and marketing facilities and thereby increase their profitability. These innovative approaches have the potential to increase crop water productivity in the agriculture sector, a sector known for consuming most of the available freshwater resources.

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