



The relevance of ecosystem services to land reform policies: Insights from South Africa

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ARTICLE INFO

Keywords:

Equity
Human well-being
Livelihoods
Multi-functional landscapes
Socio-ecological system
Sustainable development

ABSTRACT

Land reform is an important socio-political strategy in many countries. Despite the importance of ecosystem health in attaining land reform objectives, human-nature interactions have been largely absent from contemporary land reform discussions. In this perspective paper, we highlight why land reform programmes could benefit from considering ecosystem services in their planning processes, to better achieve their goals of socio-economic development and equity. Drawing on examples from South Africa, we argue that an ecosystem services lens can help achieve equity in land reform programmes by providing insight into how land-use legacies and the multi-functional nature of landscapes influence who benefits from land reform across space and through time. An ecosystem services lens also broadens understanding of how fragmentation and a changing climate may affect land reform benefits over time. By ignoring these human-nature interactions, and often unquestioningly applying one-size-fit-all approaches to land reform policies risk missing the ultimate needs of beneficiaries and broader society. Considering these insights, we discuss practical implications of an ecosystem services lens for land reform programmes. These include the need for context-sensitive, localised land reform planning that accounts for ecosystem service heterogeneity, possible trade-offs, and beneficiaries' preferences and capacities. Accordingly, ecosystem services need to possess local knowledge and avoid generic, top-down and inflexible approaches. In social-ecological considerations are imperative if countries are to achieve sustainable and equitable land reform.

1. Introduction

Land reform is a political and social justice priority in many countries (Akinola and Wasiuk, 2019; Joyce et al., 2005) that can have far-reaching social-ecological consequences. These range from increased farm productivity and improved livelihoods (Boyce et al., 2005; Lowry et al., 2017) and ecological restoration (Bryan et al., 2018) to food insecurity (Valente, 2009), violence and the destruction of natural habitats (Alston et al., 2009). Land reform may be achieved through a diversity of mechanisms. Common mechanisms include restitution (the return of land to previous occupants), redistribution (redistributing land from one stakeholder group, e.g. wealthier owners or the state, to poorer people), and expropriation (seizing land from the state, to poorer people) (Boyce et al., 2005; Lowry et al., 2017). Despite the diversity of contemporary land reform programmes, nearly all have at their heart the goals of socio-economic development,

equity, historical redress, and justice (Akinola and Wasiuk, 2019; Bryan et al., 2018).

It is increasingly recognized that socio-economic development and equity depend on the global ecological system. People, communities, economies, societies, and cultures are shaped by, dependent on, and evolve with the world's ecosystems (Polke et al., 2016; Rockström et al., 2009). Concurrently, people shape the ecosystems on which they depend, from local to global scales (Polke et al., 2016; Ostrom, 2009). Interacting systems of people and nature, or 'social-ecological systems' (SES) are complex and adaptive. The behaviour of SES (and thus the outcomes for people and nature) depends on the way in which the social and ecological components interact with each other, and with their context (Pruiser et al., 2018). Recognition of the importance of social-ecological interactions for achieving long-term, equitable development has gone beyond just national strategies, exemplified by the United Nations 2030 Agenda for Sustainable Development, with its Sustainable

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