

# Land Reform, Trust and Natural Resource Management in Africa

## Abstract

Four self-contained papers constitute this thesis.

**Paper I** investigates what impact Zimbabwe's Fast Track Land Reform Programme, launched in 2000 as part of an ongoing land reform and resettlement programme aimed at addressing a racially skewed land distribution, has had on its beneficiaries' perceptions of land tenure security and subsequent decisions to invest in soil conservation. Evidence suggests that the programme has created some tenure insecurity, which has adversely affected soil conservation investments among its beneficiaries. We find support for the contention that households invest in land-related investments to enhance security of tenure. The results underscore the need for the government of Zimbabwe to clarify and formalise land tenure arrangements within the programme.

**Paper II** uses data on beneficiaries of Zimbabwe's Fast Track Land Reform Programme and a control group of communal farmers to investigate programme impacts on the agricultural productivity of its beneficiaries. The results suggest that the programme's beneficiaries are more productive than farmers in communal areas. The source of this productivity differential is found to lie in differences in input usage. In addition, we find that programme beneficiaries gain a productivity advantage not only due to using more fertiliser per hectare; they also attain a higher rate of return from its use. Furthermore, differences in the use of capital assets, which are found to be a significant determinant of productivity, suggest that policies aimed at alleviating poverty would have a positive impact on agricultural productivity. We also find evidence that soil conservation, among other factors, has a significant impact on productivity.

**Paper III** proposes that ethnicity coupled with ethnic nepotism may reduce interpersonal generalised trust. We use the 2001 wave of the World Values Survey data for eight African countries to test this claim, and show that ethnicity and ethnic nepotism are each important in affecting generalised trust levels, and in addition their interaction has a self-reinforcing and negative effect. The results underscore the importance of institutions in controlling ethnic nepotism and thus contributing to mitigating the adverse effects of ethnicity on trust.

**Paper IV** focuses on the mopane worm, which is the caterpillar form of the Saturnid moth *Imbrasia belina* Westwood, a vital source of protein in southern African countries. The worms live and graze on mopane trees, which have alternative uses. Increased commercialisation of the worm has degraded its management to almost open access. This paper develops a bioeconomic model to show that for some optimal allocation of the mopane forest stock, the restrictive harvest period policy advocated by community leaders may not lead to sustainable harvesting of the mopane worm unless it is accompanied by an optimal tax. This tax should correct for (1) undervaluation of the scarcity value of the mopane stock under the restrictive harvest period policy, (2) differences in harvest costs and (3) a stock externality. Comparative static analyses indicate that the optimal tax rate is negatively related to the benefit discount rate but positively related to the number of harvesters.

**Keywords:** Africa, Agricultural productivity, Bioeconomic model, Dynamic analysis, Land reform, Ethnicity, Ethnic nepotism, Investments, Mopane worm, Restrictive harvest period policy, Tenure security, Trust, Zimbabwe.

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