ECONOMETRIC ANALYSIS OF THE WELFARE EFFECTS
OF COMMON PROPERTY RIGHT FORESTRY PROGRAMS

by

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Co-leader: Professor James N Blignaut

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Dedication

To my late mother Dabo Edema- for her irreplaceable love and caring
Declaration

I declare that this thesis I hereby submit for the degree of PhD in Economics at University of Pretoria is entirely my own work and has not been submitted anywhere else for the award of a degree or otherwise.

Signed:………………………………………………

Name : Dambala Gelo Kutela
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Promoter:    Professor Steven F Koch
Department: Economics
Degree:        PhD

Abstract

This thesis proposes to empirically evaluate fundamental welfare outcomes associated with common property rights forestry. The inferences made were based on data collected from selected villages in rural Ethiopia, where common property forestry programs are being run or are planned. The thesis comprises of three separate analysis chapters. The first of these analysis chapters engaged with the estimation of compensating variation, for community forestry intervention, using double-bounded contingent valuation methods while controlling for biases arising from anomalous preference revelation. The second analysis chapter aimed to identify salient community forestry program attributes that are preferred by potential program participants, estimate welfare effects and test preference heterogeneity for each of the selected attributes. The third analysis chapter aimed to estimate average treatment effects associated with the implementation of natural forest management decentralization, paying particular attention to identification issues.

The results from the first analysis chapter indicate that community forestry programs offer sizeable welfare benefits. Furthermore, double-bounded CVM studies in
developing country contexts also suffer from preference revelation anomalies, and, therefore, researchers should control for these anomalies. From the second analysis chapter, the welfare gain offered by community forestry was found to hinge largely on the proposed attributes of the program, such as the type of forest, area enclosure and type of land upon which the forest was to be situated. Moreover, the results pointed to significant differences in attribute preferences across the study population. In the third analysis chapter, after controlling for selection bias and treatment-effect heterogeneity associated with program participation, forest management decentralization programs were found to increase the average welfare of participant households between 19.96% and 33.63%. The results support the claim that common property right forestry management can be used to revive rural development and provide incentives for environmental protection, the latter of which has been uncovered in related research.<p>

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