

Research Application Summary

Institutional arrangements and stakeholder power relations underlying apiculture for conservation of natural resources in west Usambara Mountains, Tanzania

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Abstract

A study was conducted whereby 98 respondents were interviewed out of which 54 were beekeepers while 44 were non-beekeepers. Statistical package SPSS v 16 was used to analyze the data. Age, awareness of national beekeeping policy, awareness of Village land act, number of individual beehives and number of group beehives were significant variables affecting performance of dominant formal institution (Village Natural Resource Committee) at $p < 0.05$ whereas number of individual beehives and number of group beehives owned were significant variables affecting performance of dominant informal institution (cultural practices) at $p < 0.05$. Stakeholder Power Relations were constructed not only through individual position of community members in the kinship hierarchy, but also through social and economic achievement and networks that may be used in gaining access to key resources such as land, woodlands and water.

Key words: Apiculture, kinship hierarchy, power relations, Tanzania

Résumé

Une étude a été menée selon laquelle 98 personnes ont été interrogées, dont 54 apiculteurs, tandis que 44 étaient de non-apiculteurs. Le logiciel statistique SPSS v 16 a été utilisé pour analyser les données. L'âge, la compréhension de la politique nationale de l'apiculture, la sensibilisation de la loi des terres du village, le nombre de ruches individuelles et le nombre de ruches du groupe étaient des variables significatives qui affectent la performance de l'institution formelle dominante (Comité des Ressources Naturelles du Village) à $p < 0,05$, alors que le nombre de ruches individuelles et le nombre de ruches appartenant à un groupe étaient des variables significatives qui affectent la performance de l'institution informelle dominante (pratiques culturelles) à $p < 0,05$. Les parties prenantes des relations de pouvoir ont été construits non seulement par la position individuelle des membres dans la hiérarchie au sein de la

communauté de parenté, mais aussi à travers les réalisations sociales et économiques et des réseaux qui peuvent être utilisés pour accéder à des ressources essentielles telles que la terre, les forêts et l'eau.

Mots clés: Apiculture, la hiérarchie de parenté, les relations de pouvoir, la Tanzanie

Background

The livelihoods of most people in Lushoto district of Tanzania depend on direct utilization of natural resources surrounding them. Increasing population has contributed to changes in land use/cover patterns, land fragmentation and livelihood insecurity. Increasing demand for food, energy and other environmental services has contributed to expansion of agriculture, including marginal areas, such as West Usambara Mountains. This development has given rise to environmental degradation that has led to serious hazards, such as deforestation, soil erosion, flooding, sedimentation and disturbance of hydrological balance (Shishira and Yanda, 2008).

Apiculture or beekeeping offers as an effective tool for conservation of natural resources in West Usambara Mountains. Through apiculture, communities are empowered to utilize the natural resources that are in their vicinity and learn how to manage, take care of and make money from the resources in their own environment, (Shrestha *et al.*, 2006). Governance arrangements shape the way individuals behave and interact and are a necessary prerequisite to the sustainable use and management of natural resources. In order for natural resource management to be equitable, effective and efficient, all the various stakeholders must be part of the decision-making and management processes. Stakeholder Power relations determine the access and control over natural resources.

This study aimed at carrying out an analysis of existing institutional arrangements and power relations with regards to apiculture. It is hoped that this will contribute towards development of sustainable institutional framework that is able to respond promptly to market demand and sustainable apiculture that will lead to conservation of natural resources.

Literature Summary

Informal institutions shape the local organizations, while the leadership structures within the community and their functional roles ensure compliance with the rules, norms and beliefs on the part of populace (Kendie and Guri, 2006). Formal institutions refer to the rules that guide access, control, and management of

Study Description

Common property resources and which are backed up and enforced by the state.

Information was collected from 98 respondents comprising 65 males and 33 females. The respondents were drawn from three zones namely, Cold humid (Lushoto Boma/Migambo, n=36, Cold dry (Lukozi/ Malindi, n=32) and dry warm (Mwangoi, n=30). Purposive, stratified and random sampling techniques were used in selecting study units).

Participatory Rural Appraisal, Focus Group Discussions, Key informants survey Participant's observation, Questionnaire survey. Both descriptive and inferential statistical analyses were carried out using SPSS version 16). Binary logistic model was used for data analysis.

Findings

Formal institutions found were Village Natural Resource Committee (VNRC), Village Environmental Committee, and Land Use Planning Committees. VNRC was the dominant formal institution. Age, awareness of national beekeeping policy, awareness of Village land act, number of individual beehives and number of group beehives were significant variables ($p < 0.05$) affecting performance of VNRC.

Informal institutions found in the study area were cultural practices and traditional norms. Cultural values were dominant informal institutions. Number of individual beehives and number of group beehives owned were significant variables ($p < 0.05$) affecting performance of cultural practices. Key stakeholders were individual and group beekeepers, Ministry of Natural Resources and Tourism (MNRT), Ministry of Agriculture and Co-operatives, Faith Based organizations, Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA). The MNRT is the key institution in policy formulation and implementation of conservation of natural resources but the onus to implement programmes is with individual and group beekeepers. The Faith based organizations have strong influence in promotion of conservation of natural resources. The Ministry of Agriculture and Livestock has strong influence on individual and group beekeepers because most beehives are located on farm land. ASARECA has strong influence in promotion of apiculture and natural resource conservation.

Research Application

Strengthening co-operation among key stakeholders in sustainable management of natural resource base in order to

avoid degradation. Informal institutions can compliment formal institutions.

Recommendation

The key stakeholders such as Ministry of Environment, Ministry of Agriculture and Co-operatives, Faith Based organizations, ASARECA and Individual and group beekeepers should strengthen their co-operation in terms of promotion of apiculture for conservation of natural resources. It is also recommended that cultural practices, values and norms should compliment formal guiding principles of natural resource management such as by-laws.

Acknowledgement

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