

Community Capacity Building as an Opportunity for Sustainable Land Management: Lessons from Ndome and Ghazi in Taita-Taveta District, Kenya

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Abstract

The prevalence of land degradation particularly in developing countries would suggest that sustainability has remained more in the conceptual phase and not been transformed into a problem solving aid/tool. In this paper, which is based on an erosion study of 1996-1999 in semi-arid Ndome and Ghazi agro-ecosystems in Taita-Taveta, Kenya, it is argued that failure to develop capacities of individual land users for problem solving is the root cause of this problem. Further, targeting community needs and priorities within the domain of poverty alleviation presents the most practical entry point towards sustainable land management. It was concluded that effective management of land users through community capacity building (CCB) is the single most important entry point in this endeavour. What constitutes CCB and its role in a functional model towards sustainable land management is the gist of this paper.

1 Introduction

Despite technological advances in land and water management (LWM) and the acknowledgement by development research and policy structures of the importance of decentralised approaches in natural resource management (CONWAY AND BARBIER, 1990; SCHREIBER AND HILL, 1994; ASHBY ET AL., 1996; MCCLELAND, 1998), land degradation and desertification continue to threaten the total health of our environment and community livelihoods particularly in developing countries (EDEN AND PARRY, 1996; THOMAS, 1997). Erosion 'hot spots' in Africa are increasingly being characterised by massive depletion of soil nutrients due to severe erosion, agricultural intensification and exploitative farming (SCHIERR AND YADAV, 1997 AND SMALING ET AL., 1997). There is growing evidence in Kenya of increasing off-site and on-site land degradation costs such as

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destruction of infrastructure due to runoff, reduction in reservoir storage capacities due to siltation, and disruption of aquatic ecosystems through eutrophication.

Sustainability seems therefore to have remained more in the conceptual phase and not been translated into a practical tool towards the realisation of expected objectives. As a catch word of the times, sustainability continues to be used as a standard quote by most researchers and development groups in pursuit of purely unilateral objectives that have no relationship with the term (BRIDGER AND LULOFF, 1999). In this paper it is argued that the greatest mark of sustainability is land users' accountability to the resource base and their commitment to the achievement of the common good in the course of resource utilisation. This virtue is depended on effective management of land users, which as noted by Liniger et al, (1998) has been the missing link in conventional soil and water conservation planning. What constitutes effective management of land users is the focus of this paper, and is based on a study performed in semi-arid Ndome and Ghazi agro-ecosystems in Taita-Taveta District, Kenya between 1996 and 1999 to determine the root causes of persistent erosion damage and hence derive appropriate counter measures for sustainable land management.

2 Methodology

Three separate participatory rural appraisals (PRA) were used to gather data from three villages considered seriously affected by erosion damage in Ghazi namely: Mngalenyi, Majengo and Mbulia. Each PRA comprised thirty participants representing all village interests and selected by the village development committees (VDCs). Questionnaire surveys were used to gather information from 129 households representing all the villages in Ndome and randomly selected from VDC records. Additional secondary data was gathered from World Neighbours (1996 and 1997).

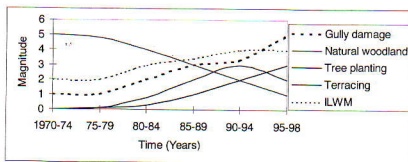


Figure 1: Temporal erosion damage within local and external support systems (Own PRA in Ghazi, 1998).

3 Results and Discussion

Participatory analysis of erosion damage showed that external assistance for problems not yet appreciated by the community would finally end up in dismal results. A Danish International Development Aid (Danida) funded programme to control soil erosion through structural measures tended to stabilise soil loss between 1980 and 1990. Terracing however, declined with the pulling out of Danida, while gully damage increased rapidly (Figure 1).

Although the ultimate erosion damage was effected by runoff following abnormally heavy rainfall events, the decline in the adoption of terracing was attributed to several factors, which included:

- limited farmer participation in decision making as mediated by intrinsic top-down land water management (SWC/LWM) administration,
- failure on the part of external assistance to recognise the interdependence of multiple community needs with the environment and development,
- failure on the part of outsiders and the extension service to build on the existing indigenous knowledge,
- lack of effective extension and/or NGO follow-up in the event of withdrawn external assistance and
- lack of effective monitoring and evaluation of impact on the part of the donor agency.

Two independent investigations into the communities' agricultural and environmental priorities revealed a growing demand for self reliance rather than short-term solutions. Whereas priorities in 1987 were access to income and food for both Ndome and Ghazi (Figure 2), priorities in 1998 shifted from land products per-se to the productivity of the land resource itself (Figure 3). The growing importance of dry land farming was indicative of the farmers' realisation that sustained supply of land products depended on the availability of productive land in-situ, with adequate supplies of water to supplement the unreliable rainfall for crop production.

The importance of draft animal power reflected growing adjustments especially on the part of women, to labour shortages, the need to cultivate more land commensurate with population growth and the need to increase the soil's moisture retention by breaking the hard pans, which had developed following years of shallow tillage. Growing importance of afforestation was on the other hand indicative of the threat from dwindling availability of wood-fuel. Apart from meeting the energy demand, strategic afforestation would serve the added advantage of improved land conditions through erosion control, nutrient recycling, improved micro-climatic conditions and provision of animal fodder.

The actualisation of these priorities/objectives was however mainly constrained by socio-economic and institutional factors, whose address would therefore form the basis of sustainable land management (Figure 4).

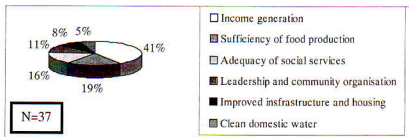


Figure 2: PRA based 1987 community livelihood priorities for Ndome and Ghazi (Source: WORLD NEIGHBOURS, 1997).

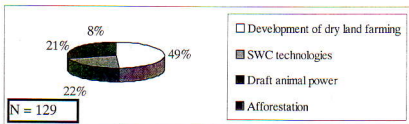


Figure 3: Questionnaire based community livelihood priorities, Ndome 1998 (Source: own survey)

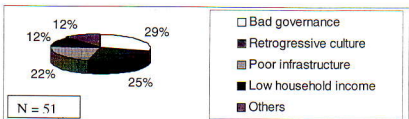


Figure 4: PRA based hindrances of sustainable community development (SCD) in Ndome, Ghazi and Wongonyi (Source: WORLD NEIGHBOURS, 1997).

Bad local governance was responsible for the lack of effective enforcement of land use policies, particularly the respect of land titling. This encouraged land degradation by allowing destructive open-grazing on private land to continue. Whereas information flow from village development committees (VDCs) to the government district development committee (DDC) was fast, the reverse was stifled by bureaucratic inertia. Retrogressive culture and attitudes manifested themselves through gender insensitivity. Land degradation was accentuated through women-farmer marginalisation in decision mak-

ing about conservation, farm production and distribution of family labour. Poor rural infrastructure (roads) undermined local trade and provision of other essential social services with the effect of reduced possibilities to accumulate financial capital and falling quality of social capital.

The current emphasis on good community organisation, effective enforcement of policies and bye-laws and the need for stable institutions for sustainable community development (Figure 5) is thus indicative of the current direction of intervention.

Good community organisation and effective implementation of land use policy would on the other hand largely depend on community capacity building (CCB), which should be understood to be the facilitation of the endowment of the land users with abilities to enhance better functioning and achievement of desired results/goals (WORLD NEIGHBOURS, 1996). Its ten key elements are described in figure 6.

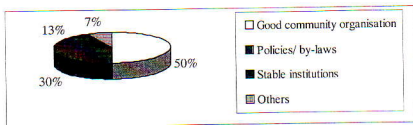


Figure 5: PRA based factors towards sustainable community development in Ndome, Ghazi and Wongonyi (Source: WORLD NEIGHBOURS, 1997).

If farmers would appreciate land as a finite resource (1) and land degradation as a problem that threatened their livelihoods (2), they would be in the forefront in the search of appropriate counter measures. Inadequacy of resources among poor small-scale farmers would necessitate channelling their energies and meagre resources to the most important degradation forms. Hence the importance of problem diagnostic abilities (3). On the basis of farmers' divergent priorities, only participatory approaches would attract collective responsibility in pursuit of the common good. With such a change in attitude, external actors including the government would only act as facilitators of the ensuing people driven development programme, projects or process.

Increased focus on the mobilisation and management of community resources (4) would help check the dependency syndrome, when people accept responsibilities for their own problems. Effective planning and implementation of agreed upon land improvement initiatives (5) would require team-work among all stake holders and also institutional integration. Effective evaluation, monitoring and impact assessment (6) would likewise require the participation of land users, which would facilitate the implementation of necessary adjustments (7). Community sensitisation on basic human and legal rights (9)

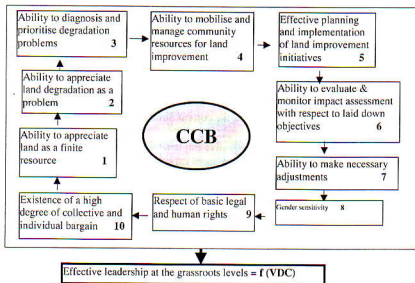


Figure 6: Key components of community capacity building

derives its importance in land related conflicts that tend to persist due to ignorance and mere intimidation of the vulnerable by the powerful. Promotion of gender sensitivity (8) derives its importance from household agricultural production decision making, which to date tend to marginalise women farmers with the consequence of increased land degradation risks. The wide spread poverty and hence limited access to production and conservation factors, would necessitate availability of a high degree of collective bargain (10) such as through co-operative societies in order to pull the scarce resources together in pursuit of common objectives. It follows that CCB is what constitutes effective management of land users. Although increasing investments in CCB will determine the emerging qualities of sustainability, concurrent investments in the biophysical dimension remains equally important (Figure 7).

Being essentially a function of social and human capital, the success of CCB would depend on effective leadership at the grassroots. In Ndome and Ghazi, the village development committees (VDCs) are extremely useful in this regard (Own survey, 1998). Integrated research, routine resource inventories and farmer friendly land quality assessment would be inevitable to pave way for policy, law and technical adjustments, commensurate with changing demands in each specific agro-ecosystem. Development of rural infrastructure particularly feeder roads and existence of good marketing policies would trigger a proliferation of rural markets and act as an incentive for commercial farming, which tends to be accompanied with resource conservation.

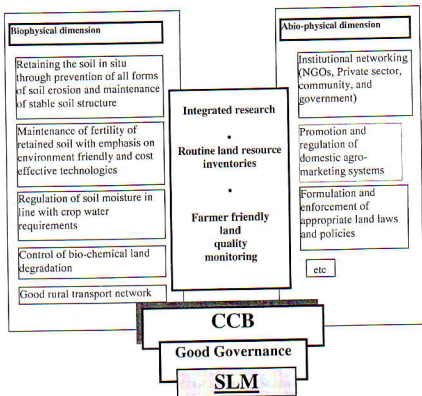


Figure 7: Sustainable Land Management (SLM) Conceptual and Functional Model

4 Conclusions

Results from Ndome and Ghazi suggest that targeting community needs and priorities within the domain of poverty alleviation presents the most practical entry points towards sustainable land management in rural agro-ecosystems. This would inevitably call for greater and active participation of land users at all levels of decision making and design of solutions in resource management. Increased individual and collective accountability to the resource base by land users and also their commitment to the achievement of the common good is the greatest mark of sustainability. These values are depended on effective management of land users through community capacity building (CCB). Although concurrent investment in other dimensions particularly the biophysical dimension remains equally important, emerging levels of sustainability will be depended on ability of people to perform effective integrated-research and implement subsequent policies and recommendations, hence the indispensability of CCB. The success of CCB will similarly require a conducive political environment.

Zusammenfassung

Aufgrund der insbesondere in Entwicklungsländern weitverbreiteten Degradation des Ackerlands kann man zu dem Schluss kommen, dass Nachhaltigkeit noch mehr ein Konzept und weniger ein Hilfsmittel zur konkreten Problemlösung darstellt. Die vorliegende Publikation, die auf einer 1996-1999 Erosionsstudie in Taita-Taveta, Kenia beruht, vertritt die Einschätzung, dass die unzureichende Entwicklung von Kapazitäten der Landwirte (Gemeinschaft) als Hauptursache für das derzeitige Problem anzusehen ist. Weiterhin erscheint die Ausrichtung auf die Bedürfnisse und Prioritäten der Landwirte im Rahmen der Armutsbekämpfung als bester Ansatz zu einem nachhaltigen Landmanagement. Die Schlussfolgerung besteht darin, dass dazu das effektive Management der Landnutzer durch Gemeinschaftskapazitätsbildung (CCB) den einzig richtigen Einstieg bietet. Die Bedeutung von CCB und seine Rolle in einem Funktionsmodell zum Zweck nachhaltigen Landmanagements liegt im Focus dieser Publikation.

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Präsident der internationalen Kommission für Agrartechnik CIGR

Die internationale Kommission für Agrartechnik CIGR (International Commission for Agricultural Machinery) hat am 1. Januar 2003 die Position des Präsidenten der CIGR übernommen. In der VDI-MEG ist Prof. Munkwitz als Mitglied des Beirates und Vorsitzender des Arbeitskreises Energie- und Umwelttechnik.

Der Bereich der Deutschen Agrartechnik geleistet. Der Kongress wird in vielfältiger Weise die Kooperation zwischen Wissenschaft und Wirtschaft einleiten und die überregionale Bedeutung des Standortes Bonn als Wissenschafts- und Kongressstadt anderer Länder zu betonen. Die Agrartechnik der Universität Bonn die Ausrichtung des CIGR Weltkongresses im Jahr 2006 in die Bundesstadt Bonn zu holen. Damit wird zukünftig ein herausragender Beitrag zur Internationalisierung der Agrartechnik geleistet.

Die Agrartechnik der Universität Bonn die Ausrichtung des CIGR Weltkongresses im Jahr 2006 in die Bundesstadt Bonn zu holen. Damit wird zukünftig ein herausragender Beitrag zur Internationalisierung der Agrartechnik geleistet.

Max-Eyth-Gesellschaft Agrartechnik (MEG)

Die Agrartechnik der Universität Bonn die Ausrichtung des CIGR Weltkongresses im Jahr 2006 in die Bundesstadt Bonn zu holen. Damit wird zukünftig ein herausragender Beitrag zur Internationalisierung der Agrartechnik geleistet.

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