# Restructuring Community Forestry:
# A Look at Tenure, Institutions and Gender in The Gambia

by

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**Abstract:**

Sustainable use of natural resources is often an elusive and difficult goal to achieve. Community forestry is a management scheme of devolution, decentralization, land tenure reform and participation. Whereas other methods rely on the strength of external organizations, the state and/or commercial enterprises, community forestry attempts to rely on the strength of community institutions for the conservation and sustainable management of the remaining forests. Central to the success of community forestry is the bequeathing of forest tenure rights to communities to ensure participation and ownership. For the purposes of this paper, success is defined as ownership and equitable participation by communities in the sustainable management of forests.

Much of the discussion in this paper outlines the polarized stances of development professionals. In this paper, I advocate for the adoption of more moderate and adaptive solutions. I propose integrating customary practices within the state-imposed forest management framework as an alternative to choosing either a customary system or a state-imposed system. Emphasis is given to strengthening the rights of communities as opposed to livelihoods replacement to promote a more long-term sustainable management plan and to promote investment by the community in attitude and action. Creation of institutions or reinforcing of existing institutions can ameliorate the dangers of inefficiency and elitist control commonly found in both customary and government-led institutional structures. To facilitate this transformation I recommend the involvement of PVOs and the restructuring of local governments to provide a supportive structure for transparent and equitable governance. In order for equity to be present, forest management institutions must include marginalized groups in a manner that does not undermine the authority and legitimacy of the organizations.

The case study of The Gambia helps to highlight the value of incorporating customary regimes and institutions into forest management practices. Through examination of different cultural practices, the case study serves to reinforce some of the notions concerning adaptive tenure and management policies in addition to setting the stage for further discussion into those arenas. In addition, the recognition of customary and traditional law by the government of The Gambia, as well as pivotal PVO involvement, strengthens forest management institutions in a successful example of hybridization. Analysis of the Gambian case study provides a platform for community forestry extension in other African countries. Customary institutions should be seen as dynamic and adaptive instruments for management created over time through trial and error by knowledgeable rural experts rather than as the backwards and inflexible creations of the ignorant rural poor.

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## List of Abbreviations

| | |
|---|---|
| BINGO | Big Non-Governmental Organization |
| CAMPFIRE | Communal Areas Management Programme for Indigenous Resources *(Zimbabwe)* |
| CCSF | Community Controlled State Forest |
| CI | Conservation International |
| CIA | United States Central Intelligence Agency |
| CILSS | Permanent Inter-State Committee for Drought Control in the Sahel |
| CF | Community Forest |
| CFMA | Community Forest Management Agreement |
| CPR | Common Pool Resources |
| ICDP | Integrated Conservation and Development Project |
| FAO | Food and Agriculture Organization of the United Nations |
| FD | Forestry Department [of The Gambia] |
| GGFP | Gambian-German Forestry Project |
| GFMC | Gambian Forest Management Concept |
| GNI | Gross National Income |
| GTZ | Deutsche Gesellschaft für Technische Zusammenarbeit |
| JFPM | Joint Forest Park Management |
| KWNP | Kiang West National Park |
| LRD | Lower River Division |
| LTC | Land Tenure Center, University of Wisconsin-Madison |
| MA&D | Market Analysis and Development |
| NTFP | Non-Timber Forest Product |
| PCFMA | Preliminary Community Forest Management Agreement |
| PVO | Private Voluntary Organization |
| TNC | The Nature Conservancy |
| USAID | United States Agency for International Development |
| WWF | World Wildlife Fund |

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## Introduction:

Sustainable use of natural resources is often an elusive and difficult goal to achieve. Methods for attaining this goal range from state-imposed preservationist strategies to complete devolution of rights to manage and use the resources at the individual level. In between those extremes are various natural resource management strategies from private and PVO (private voluntary organization) collaborated management schemes to community forestry. The latter form of forest management is one of devolution, decentralization, land tenure reform and participation. Whereas other methods rely on the strength of foreign organizations, the state and/or commercial enterprises, community forestry attempts to rely on the strength of community institutions for the conservation and sustainable management of the remaining forests. With the drastic loss of global forest cover, especially in the tropics, the governments of the world are scrambling to save their remaining forest reserves through the best method available.

This paper begins with a review of the literature on the topics of participatory forestry, decentralization, tenure and adaptive management. By delving into the topics related to forest management and tenure debates, the literature review will highlight the considerations that must be made when addressing inherently complex tenure and forest management systems. Participation, defined as integration of actors in the decision-making, management and adaptation of processes, will be analyzed in current and theoretical approaches.

We have now entered into an era where donors and development agencies, conservation groups and governments focus on communities in an attempt to address the dual issues of increasing deforestation and widespread poverty. In the 1980's, there was a paradigm shift in the forest conservation approach to include communities in conservation strategies and to bridge the gap between rural development and the preservation of forests (Arnold, 2001). This is in contrast to the development policies of the 1960's and 1970's which encouraged a strong government role in resource management leading to extensive state expropriation of forest resources and a massive loss of local forest control (Arnold, 2001).

No longer could one issue be addressed without taking into account the other. Participation by communities was sought in an effort to include those most intimately familiar with the forest and its resources. This participatory approach is most aptly described by Western and Wright (1994, p. 7) who stated that "community-based conservation includes natural resources or biodiversity protection by, for, and with the local community."

The involvement of the state and development/conservation agencies in community-based forestry has been under scrutiny following many failed project attempts. Many feel that the premise of community based forestry is a valid one, but that faulty implementation of the concepts has contributed to the failure of the projects (Agrawal & Gibson, 1999; Berkes, 2004; Murphree, 2003). In this paper, I will address the successes and failures of community based conservation and sustainable management.

Following the review of issues and theories on tenure and participatory forestry, a case study on The Gambia highlights how these various issues can be applied to and analyzed within the context of an existing community forestry program. In an attempt to take into consideration the various political, social and economic factors affecting forest management, this study will provide background into the specifics of the Nganing-Koi community forest. The focus will be on demonstrating how cultural and customary institutions can be incorporated into government/PVO-initiated, but community-driven forest management systems.

This paper specifically addresses the lack of institution building in community forestry projects and how this has typically failed to create the necessary structures and regimes for sustainable resource use. Failure to devolve authority for enforcement and conflict resolution is shown to be a common failure in developing nations, and one that causes significant amounts of aid money to be wasted on projects doomed from their inception. As a salve to this issue, I will examine the use of adaptive management strategies that utilize existing social and cultural structures to augment community forest governance and tenure arrangements (Armitage, 2003).

No criticism of conservation strategies can be made without mentioning the importance of land tenure for the communities involved. Tenure is cited as a major contributing factor to the success of CBC projects in much of the discourse on participatory resource management (Arnold, 2001; Bruce, 1998a; Church & Laarman, 1996b; Dickerman, 1989; FAO, 2007b; White & Martin, 2002b; L. Wily, 2004). Yet relatively few authors seek to examine exactly what level of land and resource tenure should be given to communities in order to optimize both conservation and development. The issue of community usufruct and ownership rights to forests will be examined more closely.

Early attempts at participatory forest management relied only on the presence of communities for a supposed successful project. Proponents of this approach were convinced that community participation and co-management would be the cure-all to deforestation and forest management issues. The international community came to realize however that local communities simply being present did not result in their adoption of sustainable forest management practices (Terborgh, 1999). Development practitioners discovered that participation needed to include empowerment, inclusion in the decision-making process and an equal representation in the resource management governance (Berkes 2003). The most effective tool for achieving this participation is through tenure rights and devolution of power to communities.

In order to analyze the effectiveness of land and forest tenure in community forestry, one must recognize the influence of multiple factors at work in complex resource management schemes. Poverty, food security, marginalization of women and the poor, illicit activities and corrupt governmental regimes are but a few of these. While taking into account the difficulty of assigning causality for successful forest management projects to tenure in complex, multi-faceted environments, I will nonetheless attempt to analyze a case study of community forestry in The Gambia.

For the purposes of this paper, success is defined as ownership and equitable participation by communities in the sustainable management of forests. Sustainably managed forests are defined as those forest systems that provide for the long-term maintenance of forest ecosystem services and products. Ideally, successful community forestry projects will provide equitably distributed economic benefits for communities in order to encourage community participation. However, success also encompasses those community forests that have not yet achieved sustainability, yet have succeeded in ameliorating deforestation and that are working towards the goal of sustainable management.

In 1999, The Gambia was selected to host an international workshop on community forestry in Africa in part because of the success that the country has shown in devolving power to communities and establishing an effective policy and legislative framework surrounding community forestry. I have decided to focus on The Gambia both because of my familiarity with forestry issues in the country and due to the country's reputation for a successful community forestry model. I will analyze the Kiang West District of The Gambia to determine the effect customary tenure agreements and local

institutional structures have on local resource consumption and forest conservation in an attempt to identify strategies to restructure community forestry.

Whilst participation and decentralization have proven successful in many resource management issues throughout the world, there remains a need for a strong state presence in community forestry programs (Ribot, 1998). Participatory forest management successes in relatively politically and economically stable countries such as Costa Rica obfuscate the risk of massive forest loss through inappropriate devolution of resource management authority in the developing world. The most effective resource management practitioners seem to be those local community members who are intimately tied to the survival of their forests and who operate within highly complex and unique socio-economic and political situations.

The solution therefore needs to be an approach that is unique and highly complex in its accounting for geo-political and socio-economic pressures. There is no one-size-fits-all approach to forest management. The world will most likely require the presence of protected wilderness areas as well as co-managed forests, but the value of strengthening community forest institutions in the face of global population pressures is paramount.

However, the idea of secure tenure as a panacea to deforestation must be revised. Communities that have been given tenure over neighboring forests have been shown to exploit their forest resources in the absence of adequate management structures (Western et al., 1994). Community forestry institutions, regimes and tenure arrangements must be restructured with the diversity of community composition in mind. Adaptive management strategies that take into account the varied stakeholders' needs and vulnerabilities is needed to properly extend forest tenure and ensure ownership of the forest management process.

## Historical Review: Community Forestry and Forest Tenure

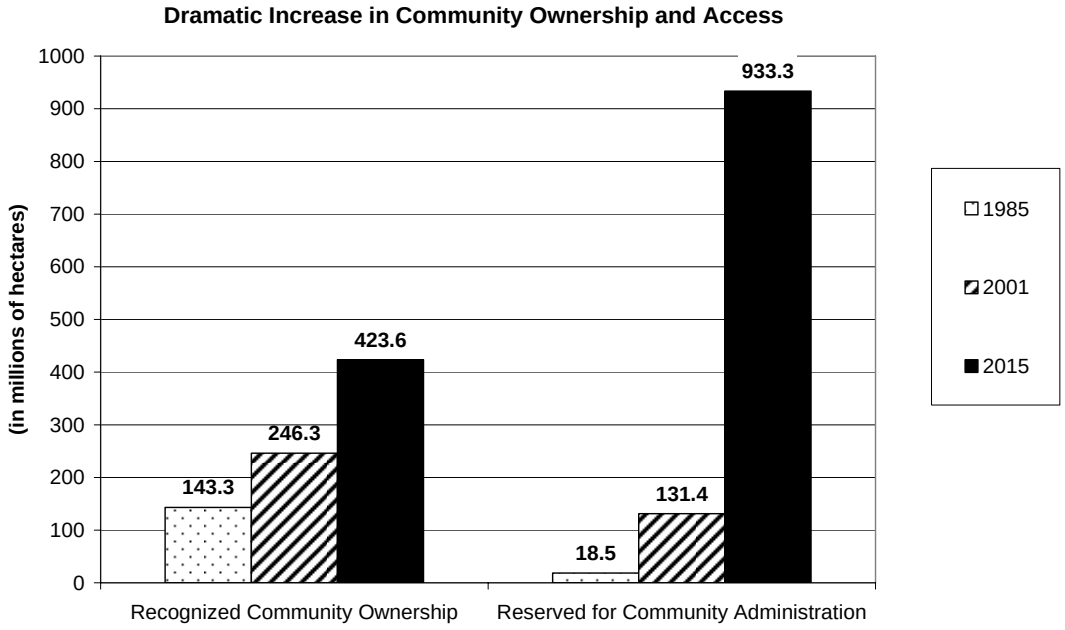
For millennia, the sub-Saharan peoples of Africa have been intricately tied to their forest resources. Their livelihoods, sustenance and even culture were linked to the forests from which they depended and survived. The forests of this continent were lush and abundant with wildlife, game, medicines and fruit. Harvesting techniques were developed by these wandering or sedentary peoples to take advantage of these bountiful offerings and the ties deepened between the communities and the forests around them. However, this human-forest interaction is hardly limited to Africa, as people in most every region of the world have developed a similar connection with, and dependence on, their natural forests.

Within the last five decades, the situation has changed. The advent of improved agricultural techniques and health care spurred a tremendous population explosion following World War II. With this drastic increase in population came an equally dramatic rise in pressures on natural resources. Forests cover began to diminish at an alarming rate and that rate has only increased due to the globalization of the timber trade. While the timber trade, especially in Latin America and Asia, had been responsible for a significant portion of global deforestation, the harvesting of fuelwood predominantly in Africa also had a detrimental impact on forests (FAO, 1993).

The world watched as tropical country after tropical country fell victim to this seemingly unstoppable clearing of forests for timber, agriculture or fuelwood. In much of Latin America, the agricultural frontier was being pushed farther and farther into the tropical forests, sometimes encouraged by state policies advocating land conversion. Governments in developing nations began to realize that their attempts to regulate access to and manage forests were ineffective at best and exacerbating deforestation at worst. In many cases and in recent years, they then turned to communities living in or around forests to take over responsibility of managing the forests in one capacity or another.

In response to these growing deforestation trends, community forestry first developed as an alternative solution in the 1970's (Arnold, 2001). While community-based forest management had been in place for much longer in one form or another, the widespread use of the term and its implied structure came into popular use in this period. Community forest management is on the rise in the developing world with increasing control being devolved from the state level. Table 1 shows the increase in the devolution of power to communities in their ownership and administration of forests and while community ownership has only doubled from 1985 to 2001, the devolution of forest administration to communities has seen a dramatic increase of over 700% in the same period. The Forest Trends (White & Martin, 2002b) estimates show an even greater expected increase in both ownership and administrative devolution to communities by 2015.

**Table 1.** Shift in Forest Tenure to Communities (taken from Molnar et al., 2006; original source: White & Martin, 2002b)




According to the Food and Agriculture Organization (FAO) of the United Nations' initial definition declared in 1978, community forestry is "any situation which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlots in areas which are short of wood and other forest products for local needs, through the growing of trees at the farm level to provide cash crops and the processing of forest products at the household, artisan or small industry level to generate income, to the activities of forest dwelling communities" (FAO, 2007a). This definition has expanded to include a variety of management strategies with differing levels of intensity that provide livelihood opportunities for communities.

Community forestry encompasses projects that incorporate agroforestry solutions to reduce resource pressures, sustainable timber harvesting, eco-tourism operations, non-timber forest product extraction and other approaches that seek to provide incentives to communities. This incentive approach was thought to be appropriate to address issues of rural poverty, lack of participation in forest management, and conservation of biodiversity. One of the biggest incentives in the discourse on community forestry is tenure security as a tool for ensuring participation and ownership of management responsibilities.

John W. Bruce of the Land Tenure Center described property as a "bundle of rights" with different interests and stakeholders holding different rights (1998b, p. 1). He goes further in defining tenure as "right(s) in a landholder's resource" (p. 8), and that they are "characterized by country or type of economic system, as formal (created by statutory law) or informal (unwritten, customary), and as imported or indigenous" (pp. 1-2). While this paper addresses the feasibility of many different tenure institutions, we shall focus on communal tenure which Bruce (1998b) defines as the possession of rights in a community where its members have usufruct, or use, rights, but do not have rights for purchase or sale of the land.

Another tenure system classification is forest tenure, which specifically addresses forests that offer

different challenges to managing because of the global market for timber, the longevity of investment required for management and its inherent vulnerability to disturbance. I will use FAO's definition of forest tenure:

> Forest tenure is meant as a broad concept including ownership, tenancy and other arrangements for the use of forests. Forest tenure is the combination, whether legally or customarily defined, of forest ownership rights and of arrangements for the management and use of forest resources. Forest tenure determines who can use what resources for how long, and under what conditions. The necessary components of forest tenure include excludability, duration, assurance, and robustness (FAO, 2007b).

During the timber trade of the 1950's, it was common for the state to expropriate forests as a way to claim globally valuable timber resources for the government (Arnold, 2001). Rural farmers and forest communities were stripped of their right to use their forests, leaving a bitter taste in the mouths of many. Then as the state realized its inability to manage the forests, government officials returned to the communities with a directive to protect the forests. Community forestry is one step of many in a long line of failed attempts at forcing cooperation in forest management without empowerment, entitlement or capacity building.

We are now entering into an era of forest management strategies that are attempting to address these faulty institutions. Community forestry has the potential to offer viable solutions to incapacitated states who desperately seek help from their people as well as to the locals who are trying to escape rural poverty. The discourse on community forestry has focused heavily on tenure as a way to replace the lacking incentives for sustainable forest use. Yet there are a plethora of issues that require just as much consideration for successful forestry programs. The very way that these programs are initiated from the drawing board to on-the-ground implementation needs to be catered to the local and regional conditions. The current struggle is in finding the correct ingredients for the recipe of successful forest management.

## Literature Review: Community Forestry, Tenure, States and the Community

This literature review is an attempt to encapsulate the major arguments and viewpoints concerning community based forest management and forest-related tenure. It is my hope that this analysis will shed light on the complex issues surrounding community based forest management and forest-related tenure and clarify where the disparate leaders on these issues stand. This review addresses the issue of land and forest tenure as a means to achieving successful local forest management and conservation, rather than elaborating on the broader issue of tenure as a worthy goal in and of itself.

This literature review examines the debates surrounding tenure institutions and rights for forest-dwelling peoples in developing nations as they serve to increase the ability of these peoples to engage in sustainable management of the forest resources and promote conservation of remaining forests. To address this we must look at the constructs that shape this social movement for conservation and development and analyze how we are attempting to reconcile differences in global attitudes towards forests and their management institutions across the globe. We must also look at the abilities of different community-based forest management schemes to build the proper institutions and regimes for improved management efficacy and then look how true participation and empowerment play a role in that construction process. One obstacle to true participation analyzed in this review is the monopolization of power in the hands of local elites.

The amount of forested lands in developing nations is often vastly greater than the capacity of the state to manage, yet many countries continue to leave forest management in state hands while their forests disappear at an alarming rate. The trend, however, is that states are recognizing their inability to manage their forests on their own and they are reaching out to the locals living in or around the forests. Currently, 215 million hectares worldwide are in local community or indigenous control, with most of that being in Latin America (2002b). This number, while inadequate when compared to the 1.8 billion hectares of total natural forests area in the developing world (EarthTrends, 2005), is still a significant and encouraging statistic.

Within the halls of major donor agencies, environmental PVOs, governments and development agencies there is increasing talk of deforestation and its effect on global climate change and loss of biodiversity. The global movement to curb deforestation and preserve the biodiversity has been ongoing for the past several decades, but what has changed has been its approach. From the initial surge to preserve forests through isolation and resettlement in what Brockington (2002) aptly termed "Fortress Conservation," to the attempts at integrating communities in forest management, there has been no golden blueprint revealed to conservationists, communities or planners alike. A point that most authors agree on, however, is that many states lack the capacity to conserve their forests and that community based forest management is a solid concept in theory, yet often flawed in its implementation (see among others Agrawal & Gibson, 1999; Bassett & Crummey, 1993; Berkes, 2004; Berkes, 2006; Fairhead & Leach, 1996; Gauld, 2000; Li, 2001; Murphree, 2003; Peluso, 1993a; Poffenberger, 1990; Western et al., 1994; L. Wily, 2004). And where the blame largely falls for this failure in implementation is on the state which is often reluctant to devolve power and cede rights to the community level (Gauld, 2000; Peluso, 1993a, 1993b; Poffenberger, 1990; Tucker & Southworth, 2005; White & Martin, 2002a; Wilshusen, Brechin, Fortwangler, & West, 2002; L. Wily, 1999).

Literature review sections:

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- Placing blame and selecting participants
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**ICDPs & Community Forestry**

In response to mounting public pressure surrounding "anti-people" tactics engaged in by large conservation agencies such as Conservation International (CI), World Wildlife Fund (WWF), The Nature Conservancy (TNC) and other development agencies such as the World Bank, there was a push by those same agencies to incorporate the needs of the developing countries' populace (see Chapin, 2004). Integrated Conservation and Development Project (ICDPs) were thus started in 1985 by WWF and adopted by most of the other conservation and development entities (Ros-Tonen, Zaal, & Dietz, 2005). This recognition of the need to address social and economic repercussions of conservation projects on the livelihoods of the local populations that reside in or around, or rely on the resources represented a major shift in thinking. Big environmental PVOs began to recruit social scientists, political scientists and economists to fill the hallways of the BINGOs (big non-governmental organizations) where only biologists, foresters and hydrologists were once found.

John Terborgh (1999) criticizes those ICDPs as failing to achieve the objectives of social and economic development, with an even greater neglect of conservation goals. The failures of the ICDPs have been attributed to both faulty design and implementation. But even more apparent is the lack of those projects to adequately take into account the various conditions of poverty, economic pressures and political factors that are intrinsically tied to successful forest conservation and rural development (Brandon & Wells, 1992; Wells & McShane, 2004).

One problem of ICDPs that remains to be solved is the seeming paradox of promoting social and economic development in forest communities when that development inevitably attracts migrants and settlers who place even greater pressures on the resources the ICDPs were designed to conserve (Brandon & Wells, 1992; Brockington, 2002; Terborgh, 1999). Whereas the popular consensus seems to be that ICDPs were inherently flawed, Terborgh (1999) blames the failure on their predominant focus on rural development while others believe the overemphasis on conservation goals led to their downfall (Korhonen, 2005; Wilshusen et al., 2002). No matter which area, conservation or development, received more focus the result remained the same; the failure of ICDPs to address *both* conservation of forests and the development of the rural poor that depend on them for their livelihoods.

Growing out of the lessons learned from the ICDPs came several participatory forest management approaches, which attempted to include the community in the decision-making process. In this paper, I will focus on community forestry as the model of analysis while recognizing the similarities in

structure to other management practices such as social forestry, community-based conservation, joint forest management and others. Starting in the late 1970's, community forestry grew in popularity as a way to achieve the dual objectives of conservation of forest ecosystems and rural development. Now almost 30 years later the idea of community forestry is still strong in the development agenda.

Whereas in the initial stages of community forestry the goal of the states was one of reducing management costs by utilizing community labor in management, more recently the approach has shifted to an incentive-based approach for the communities. The degree to which states have implemented this shift in approach is varied throughout the world. Some programs have devolved responsibility and empowered communities through tenure and rights to resources and profits (Arnold, 2001) while others have failed to incorporate the communities into the management scheme with any tangible participation and benefit sharing (Agrawal & Gibson, 1999; Fairhead & Leach, 1996; Gibson & Becker, 2000; Peluso, 1993b; Ribot, 1998; White & Martin, 2002a; Wilshusen et al., 2002; L. Wily, 2004). One important quality of a successful community forestry program seems to be having a shift to a people-centered management scheme (Gauld, 2000). Even still, critics of the community-based conservation movement decry the inclusion of communities in a system of benefits that they claim only is only wishful thinking (Brockington, 2002; Terborgh, 1999).

**Placing blame and selecting participants**

Within much of the literature surrounding deforestation, there is a tendency to isolate factors that contribute to a trend in order to tackle the problem at its source. The most prevalent perceived causes of deforestation are population growth, rural peoples' clearing of forests for agriculture, fuelwood harvesting and illegal timber harvesting. This blame game serves only to reinforce the idea that rural farmers are the prominent culprits in deforestation and that they will engage in destructive behavior towards the forests in the absence of development. In part, this is true. Rural poverty and population growth do have a connection to deforestation but maybe not in the linear fashion that public opinion depicts it. Using GIS technology to analyze deforestation patterns, some have concluded that population growth does not always result in deforestation or that even in the face of high population growth some institutional regimes with stay or even reverse that trend (Fairhead & Leach, 1996; Unruh, Nagendra, Green, McConnell, & Vogt, 2005). In other cases, increasing population densities have actually increased reforestation due to the small farmers' benefits from agroforestry (Sanchez et al., 1997).

This stigmatization of rural people as both the cause of deforestation through their destructive practices and as the savior through community participation needs to be dispelled. Along with the assumption of rural peoples' blame in deforestation comes a distrust of all practices; traditional and local. Despite studies proving to the contrary, the rural poor are held culpable for irresponsibly cutting down their forests for their own needs (Ribot, 1999; USAID, 2002). Corrupt governments, local elites, and corporate interests in resources are often ignored by the blame-seekers. The reality is that although the communities many times are not wholly to blame, they still can be the perpetrators of the problem. The task then is to recognize this joint responsibility without ostracizing the beneficial practices of the rural poor.

**The sustainable noble savage**

While it may be that some rural poor do not have the proper amount of environmental awareness to conserve forests, they are often able to adopt that environmentalism as a result of inclusion and participation in environmental institutional regimes (Agrawal, 2005). Yet the belief that indigenous populations have an innate predisposition towards sustainable use of natural resources due to their

intimate ties with nature is a myth that has been discredited around the world. The idea of the sustainable noble savage is thus another generalization which harms the environmental movement by failing to take into account the varying resource use patterns amongst all groups; indigenous or otherwise.

While successful adaptive resource management tactics have been employed by locals (Armitage, 2003), other local populations have exploited their resources in very unsustainable ways. But common sense tells us that risk-averse impoverished people will tend towards sustainable practices and that "indigenous tenure systems place great emphasis on risk management" (Bruce, 1993, p. 36). So despite the rhetoric of local populations' destruction of forests, we are led to believe otherwise from contradicting stories such as the Forest Trends analysis which shows that indigenous communities have sustainably managed significant portion's of the world's forests (Molnar, Scherr, & Khare, 2004).

**Definition of community**

The next step to working with communities is then to define who will be the participants. The focus on the local populations surrounding the forests seems simple enough, but in reality, the oversimplification of arbitrary participant selection has done more harm than good. Local populations are made up a complex conglomeration of interests, loyalties, needs, social standing and economic classes. With community forestry, the difficulty arises in how to define the community. Communities are thought of as groups of individuals that have shared norms, are small in size and relatively homogeneous in composition (Agrawal & Gibson, 1999). The reality is often very different.

Project planners and/or implementers' selection of communities for inclusion in community forestry projects can be fraught with dangers. By assuming that communities are homogeneous entities sharing a set of norms, they can blind themselves to the internal politics of local populations and fail to take into account the pressures of outside actors. Communities many times do not have shared interests and the interests of the local farmers may be quite different from that of the local pastoralists or forest product collector/hunter. Agrawal and Gibson (1999; 2001) stress the importance of selecting participants with these considerations in mind. Community forestry runs the risk of devolving power into the hands of the local elites who may not distribute the benefits and endanger participation by the group as a whole.

Additionally, a smaller community is not necessarily better for managing the forests, sharing responsibilities, enforcing adherence to the rules and keeping each other in check. Mid-sized communities can be better than smaller communities as they have more resources and surplus to keep the community organization running and efficient (Agrawal, 2000). Size is an important consideration in selecting communities to avoid having a community organization too large to self-regulate, or to feel involved enough in the decision-making and benefit sharing. Alongside the issue of size is composition. Despite the pressure to focus on indigenous inclusion (see Chapin, 2004), we must be careful not to marginalize the non-indigenous in our participatory approach (Brockington, Igoe, & Schmidt-Soltau, 2006). To broker full cooperation and empowerment it is important to include as many of the stakeholders as possible. Further use of the word community in this paper will thus be referring a heterogeneous collection of local participants with a diverse set of interests, needs and norms.

**Forest values**

When determining the value of forests and the reasons for conserving them it is essential to realize that the western concept of parks and Brockington's (2002) "fortress conservation" are colonial and social

constructs that originated in Europe and that have been imposed on the developing world (Igoe, 2004). This idea of preserving tracts of wilderness from the depredations of human influence for the enjoyment of nature has been passed down from an aristocratic system of English commons created for wealthy elites and has now transformed into the accepted model of conservation (Neumann, 1998).

With the current push for biodiversity conservation, it should be recognized that this idea is yet again another hegemonic construct. Escobar (1998) argues that our valuation of biodiversity needs to shift from this fixation on pristine conditions to recognition of the value of human-nature interactive systems in a culturally rich setting. But instead, the discourse on biodiversity has refused to recognize the value of these systems and the gap between indigenous/local concept of nature widens from that of the conservationists (Alcorn, 2005; Fairhead & Leach, 2001). The question is whether we can find a common understanding between the western concept of separation of humankind and nature and the local view of nature as an integral part of livelihoods and culture. Within West Africa, forests are often seen as a resource pool at best and an impediment to agriculture at worst.

For some of the strict conservationists, forests represent a very black and white issue. Every aspect of their existence and the untainted maintenance of its wildness are moral obligations for them. The forest valuation differences between conservationists and locals is a significant impediment to the push for integrated community conservation (Gibson, 2001). While the current *modus operandi* of strict conservationists is to promote a mainstream western model of hands-off management, sociologists argue for the incorporation of compensatory mechanisms for traditional ecological knowledge as a way to balance the valuation playing field (Igoe, 2004). It is therefore important for forestry projects to identify and integrate local forest values into the management schemes through promotion of forest uses that are valuable to both the community and the conservation movement.

**Is it truly participatory? Partnerships vs. patronage relationships**

With this shift to a more participatory approach to both conservation and development, we must ask ourselves whether this is being done in a truly participatory manner. Mac Chapin's WorldWatch article "A Challenge to Conservationists" (2004) brought up this question in his penetrating look at the fusion of conservation and development in the third world. In his analysis, he accused the Big Three PVOs (TNC, WWF, and CI) of implementing conservation projects with little or no involvement of the indigenous communities. In their defense, TNC claimed to have helped the Mapuche indigenous peoples recover their land, WWF claims that they incorporate indigenous needs as exemplified by their work with the Mapuche to strengthen their sustainable forest use initiatives, and CI responded that they used sacred animals as campaigning tools for their Ghana biodiversity campaign (Flavin, 2005). However, are these demonstrative of actual participatory measures or is their participation merely window dressing to assuage the critics?

Janis Alcorn (2005) claims that the institutional design of conservation programs exacerbates rather than improves the connection between locals and PVOs/governments. In the current system of participatory conservation, Alcorn says that Big Conservation (BINGOs) enter into community negotiations as well-funded, politically powerful organizations, whereas Alcorn's Little Conservation (communities) are economically and politically weak (Alcorn, 2005). This discrepancy leads to an inequitable outcome from the outset of participatory ventures if it is not addressed. The traditional conservation strategies and techniques for management of resources on the micro-level are discarded as ineffectual, petty or antiquated. Westerners again come into this situation with a preconceived bias against what locals have to offer and the efforts of the Little Conservation are brushed aside in favor of high-tech, sophisticated western concepts and approaches (Alcorn, 2005).

To bridge the gap between the differing interests and values of the community and conservationists, a more integrative participation must be sought. Locals need to be given the voice to participate. For this to happen there needs to be an open dialogue between locals, their government and the PVOs (Brechin, Wilshusen, Fortwangler, & West, 2002). Unfortunately, in many instances of supposed community-based programs, the state manipulates this façade to exert coercive pressures on the people and the forest resources in the name of cooperative conservation (Peluso, 1993b). Fairhead and Leach (2001) state that biodiversity conservation is often achieved to the detriment of participation; that, conversely, participatory goals can harm biodiversity and that many times participation is only pursued when it reaffirms the PVOs' science and policy. This form of participation fails to incorporate the views and input of the locals and thus cannot be called true partnership, but rather hegemonic paternalism.

**Tenure leads to sustainable resource use**

Within the current discourse on community based natural resource management, there is one thing that the experts in the field agree on and that is that tenure is a necessity to effective resource management programs (see among others: Barbier, Sanchez, Thomas, & Wagner, 1997; Bassett, 1993; Bewket, 2005; Bohn & Deacon, 2000; Bruce, 1993; Ellsworth, 2002; Hafner, 2005; Mendelsohn, 1994; Poffenberger, 1990). While there is little to no discussion on the positive correlation of ownership to sustainable resource use, there is still discussion on whether or not tenure insecurity is directly responsible for deforestation.

A study by Mendelsohn (1994) looked at the affect of tenure on deforestation through an economic perspective. His analysis concluded that deforestation was directly attributed to lack of property rights. This author believes Mendelsohn's argument to be an extremely oversimplified attempt at establishing causality without taking into account complex and subjective factors such as attitudes, non-market valuations and cultural importance. By approaching it through a purely economic lens, you omit some invaluable considerations that are nearly impossible to assign a numerical value to. Bohn and Deacon's (2000) study also validated the hypothesis that deforestation follows tenure insecurity but yet again their variables were incomplete. Although the relationship between tenure and deforestation seems logically correlated, its absolute assumption necessitates caution.

One of the leading experts on land tenure, John Bruce (1993), admits that this causal relationship is not clear enough to declare that insecure land tenure leads to non-investment in land and environmental degradation. Many others seem to take this connection for granted, however, and although some authors such as Bassett (1993) believe that tenure reform is not the cure-all, most believe it to be directly responsible for deforestation and therefore the route to alleviating it (Bewket, 2005; Cornista & Escueta, 2005; Gauld, 2000; Hafner, 2005; Poffenberger, 1990; Tucker & Southworth, 2005; L. Wily, 1999, 2004; Zewdie, 2004).

Through a comprehensive review of the literature, it seems foolish to deny the connection between tenure and resource use. The next step then is to analyze what kinds of tenure security lead to sustainable resource use. The fault for many failed community-based forest management projects has been attributed to tenure reform that: gives usufruct rights but not rights to sell (Bruce, 1998b); fails to build on local tenure systems' strengths (Bassett, 1993) and; may give limited use rights but not the authority to manage forests, leaving locals marginalized and uninspired to participate in conservation (L. Wily, 2004). Later in this literature review, we will discuss the strengths of integrating traditional

tenure arrangements into community forestry programs to adapt to local political, social and geographic conditions.

One last discussion worth addressing is the role of private property in tropical forest conservation. This form of tenure change takes a capitalist approach on conservation and champions the idea that with private ownership of land people will be more inclined to conserve their resources for the future benefits of their family. Unfortunately this sustainable-use mentality rarely has appeared in past transitions to private property even in countries such as the U.S. (Terborgh, 1999). So whereas tenure insecurity over trees and land decreases investment in land and makes locals think in short-term (Bewket, 2005), the shift to a private ownership system engenders the same response. Circumventing these setbacks in shortsightedness, communal leases offer a way to bequeath ownership and rights but avoid the dangers of exploitation for short-term profit so dominant in private property or common property arrangements. These community leases have succeeded in improving tenure security and forest resources (Poffenberger, 1990).

**Common-pool resources: public, communal, state and private property arrangements**

No discussion on global deforestation and forest management would be complete without bringing up the issue of common property resources. The idea that common pool resources (CPRs) will be exploited to the detriment of all in Hardin's (1968) Tragedy of the Commons is a very familiar argument to most. In the absence of mechanisms to regulate a valuable resource, the argument states, users will have no incentive for conservation and hence overexploitation will occur. Each user will benefit from extracting each additional unit of goods from the forest, while the cost of that extraction will be borne by all. In the case of forests, the costs of deforestation have even greater impact as the loss of trees exacerbates climate change through the release of carbon and the loss of carbon sinks. Additionally tropical deforestation many times exacerbates already highly pressured agricultural systems through the increase of soil erosion, lack of water retention and decline of beneficial micro-climatic environments created by forests.

There are four basic CPR regimes: open access, communal, state and private (see among others Burger, Ostrom, Norgaard, Policansky, & Goldstein, 2001; Feeny, Berkes, McCay, & Acheson, 1990; National Research Council, 1986). In the open access/public system the forests are maintained as an open access resource for all and there is often little to no regulation. State controlled parks are the next step and an example of attempts to restrict access, but the difference between state and public forests in terms of resource degradation is often hard to see. With the aforementioned limited state capacity for regulation, forests have followed a history of decline and are often referred to as "paper" parks due to their de facto lack of regulation (Terborgh, 1999). Some see state-controlled parks as very effective in forest management schemes and advocate the retention of these systems (Bruner, Gullison, Rice, & da Fonseca, 2001). The next two property arrangements are communal and private and may offer greater hope for curbing deforestation trends.

Private property arrangements for forests are often problematic. The temptation to exploit the resource for short-term gain and then convert or sell off the land is often great in developing nations due to intense commercial interests in timber and the need for agricultural production. In communal management regimes, the idea is that forests can benefit from the monitoring and regulation of private ownership, but without the threat of exploitation by individuals so common in private property arrangements. African regions are witnessing an internal shift in common property ownership from state to the rural populace (L. A. Wily, 2001). The shift in property arrangements and tenure for the

forests is based mainly upon the need for an attitude shift in resource use and conservation. On the one hand, conservationists hope for preservation of the forests while locals are pressed for the need to gain benefits from the forests. To effectively work Gibson (2001) claims that common property resources must be in a state of scarcity and that the community must be dependent on the resource for its livelihood. This will impart an attitude shift towards one of conservation and regulation.

Whether a CPR is public or private, its success is dependant on monitoring, enforcement and other institutional regimes and that, in the absence of these, will make the CPRs de facto open-access and thus degradable (Banana & Gombya-Ssembajjwe, 2000). The exclusivity of resource access is paramount to a successful natural resource management scheme, especially with community forestry programs (see among others Burger et al., 2001; Cornista & Escueta, 2005; Gibson, 2001; Gibson, McKean, & Ostrom, 2000; Ostrom, 1990). Without the authority and capacity to exclude others and regulate communal members, CPRs will be ineffective. In addition to these conditions, Elinor Ostrom (1990, p. 90; 2001) outlines a set of design principles for robust, self-governed common-pool resource institutions. These principles are detailed in Table 2 and many of these principles will be highlighted for their applicability to the community forest institutions in The Gambia. Some of the more important themes to focus on from Ostrom's principles are the clearly defined boundaries, monitoring, graduated sanctions and conflict-resolution mechanisms.

**Table 2.** Design Principles Illustrated by Long-enduring Common-Pool Resource Institutions (source: Ostrom, 2001)

| | |
|---|---|
| Clearly Defined Boundaries | Individuals or households with rights to withdraw resource units from the common-pool resource, and the boundaries of the common-pool resource itself, are clearly defined |
| Congruence | A. The distribution of benefits from appropriation rules is roughly proportionate to the costs imposed by provision rules.<br>B. Appropriation rules restricting time, place, technology, and quantity of resource units are related to local conditions |
| Collective-Choice Arrangements | Most individuals affected by operational rules can participate in modifying operational rules |
| Monitoring | Monitors, who actively audit common-pool resource conditions and appropriator behavior; are accountable to the appropriators or are the appropriators themselves. |
| Graduated Sanctions | Appropriators who violate operational rules are likely to receive graduated sanctions (depending on the seriousness and context of the offense) from other appropriators, from officials accountable to these appropriators, or from both. |
| Conflict-Resolution Mechanisms | Appropriators and their officials have rapid access to low-cost, local arenas to resolve conflict among appropriators or between appropriators and officials |
| Minimal Recognition of Rights to Organize | The rights of appropriators to devise their own institutions are not challenged by external governmental authorities |
| Nested Enterprises | Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises. |

Further research is needed on different tenurial systems and their relationship to the establishment of CPR ownership schemes. One research study by Lepp & Holland (2006) found that community attitudes in Uganda were more positive towards a community-controlled park area versus a state-

controlled park indicating that local resource exploitation would be less in the communal forest, based on the assumption that attitudes will influence resource use patterns. There is another camp, however, that believes that giving tenure to small farmers will not work as it is in their interests to deforest and therefore we need to simply pay off the farmers to conserve the forests (Simpson, 2004). Finally there are those that believe that whatever system is used (common or private) as long as it is stable it will produce sustainable resource use, yet they believe there still remains a need for 'special conservation zones' that precludes any extractive use (Mendelsohn & Balick, 1995).

**Decentralization, devolution and the state**

With much of the tropical deforestation rhetoric revolving around state institutions and the rural poor it is not surprising that there emerged a discursive focus on decentralization and devolution of power to the community level. Whether or not one believes in a top-down redistribution of decision-making and power or advocates a reaffirmation of an authoritarian rule by the state, one cannot ignore the importance of addressing this balance of power issue. Terborgh (1999) and Brockington's (2002) stance on the need for the state, and even outside agencies, to maintain control of parks and keep them out of the hands of communities seems clear, even though the success of that approach has yet to be determined. The popular view is that this hegemonic, authoritative state rule is inappropriate and that power should be devolved to the lowest level to empower the weak and marginalized.

In the face of strong evidence by both sides concerning the inability of communities or states to manage forests in a sustainable manner, we must maintain perspective. When in an environment of authoritarian policy, community resource management becomes inordinately difficult (Wilshusen & Murguia, 2003). Yet the CAMPFIRE program in Zimbabwe demonstrates that despite a significant amount of devolution of power by the government, the blame for the failure of communities to realize their potential was attributed to an incomplete devolution of power (Murphree, 2005). Brockington (2002; 2004) often uses the example of Mkomazi Game Reserve in Tanzania to back up his argument that communities are *not* needed for successful conservation even in the presence of local opposition. Yet Western's (1994) example of the Amboseli National Park in Kenya, where local Maasai, discontent with their exclusion from the national park, committed widespread slaughter of the wildlife in retaliation gives contradictory evidence. While there may seem to be situations where the exclusion of communities from forests would preserve forests, the majority of literature seems to suggest the opposite with examples of the exclusion of communities resulting in retaliatory sabotaging and exploitation of the resources (Kirstein, 2000; Peluso, 1993b; Sonko et al., 2001; USAID, 2002).

The right balance to decentralization and devolution thus necessitates an analysis of the situation and an understanding of the rural poor perspective (Chambers, 1983). Tenure can be given, extractive livelihoods allowed or encouraged, but communities seem to respond best to rights not livelihoods (Alcorn, 2005). Even when given use rights, but not the authority to manage forests, locals will balk at the task at managing them and remain uninspired towards conservation (L. Wily, 2004). Moreover, the opportunity for an open dialogue between state and communities as well as rights and social justice will produce an environment much more conducive for sustainable use (Brechin et al., 2002). It is a tricky balancing act to cede the correct balance of rights and power to the communities in order to attain the crucial shift in attitude for successful forest management.

Devolving *all* power and decentralizing decision-making to the communities however is rarely a viable option for two reasons. One is that states are extremely averse to allowing control of valuable forest resources to leave their hands. Secondly, impoverished communities would often be hard-pressed to ignore the temptation for quick cash from the clearing the forest. State involvement is essential and

although protected areas demand a significant amount of protection, the communities must still be involved (Wilshusen et al., 2002). Actual devolution of power is difficult to attain in developing nations in particular. The environment of corruption, poverty and nepotism encourages actions with very little actual devolution such as the bequeathing of tenure as a privilege rather than a right, insecure and revocable at the slightest whim of the government (Gauld, 2000; L. Wily, 2004). Empowerment and participation are unable to exist in that environment.

Although it seems easier to blame the failures of forest management on polarized issues or squarely at the feet of the state, the communities' culpability must always be considered. Jesse Ribot's (1999) balanced approach to community participation seems an ideal place to start as he advocates participatory approaches to natural resource management that include the state as a beneficial entity rather than the evil actor. Whereas some may feel that the state's role should solely be in an advisory capacity (L. Wily, 1999), others recognize the need for any strong organizational body to implement communal forest leases (Cornista & Escueta, 2005). This position could be filled by many agencies including community organizations, local or state government or even PVOs each with a degree of involvement commensurate with their ability to instill true participation and empowerment.

Decentralization and devolution are complex issues requiring a thorough examination of social, political and economic institutions and their influences on the local forest situation. This type of analysis is beyond the scope of this paper and we have addressed only those areas that remain important to a broad analysis of community forestry. The obvious impact of state's over harvesting of forests, land control incentives for forest clearing by peasants and illegal loggers and the need to award foresters and communities for sustainable practices are just some of the issues that contribute to the spectrum of economic and political factors (Peluso, 1993b). Economists' focus on the value that locals place on tenure often times fail to take into account the non-market values which are generated (Ellsworth, 2002). For community forestry to move ahead, all factors must be taken into consideration that influence decision-making and attitudes and that work towards participation in a dynamic, active resource management regime (Murphree, 2003).

**Adaptive tenure systems, complex systems & conglomeration of stakeholders and interests**

Within the confines of the complex and intricate environment of the community, the state and global pressures that have been discussed above, is the remaining need for an equally complex forest management institution. Adaptive management has been described by Berkes (2004) to be a deviation from western-centric models of forest and park management. He describes a system that incorporates incentives for multiple stakeholders and which takes into account the varied interests found in a heterogeneous community. The cookie-cutter mold for community forestry will no longer be acceptable as we encounter more and more failures from ill-suited management schemes. These schemes must be developed in a way that integrates the diversity of the communities, draws on the strengths of local institutions and which adapts to an ever-changing amalgamation of interests in a stochastic global environment.

A strong community voice (Gauld, 2000) and active participation (Murphree, 2003) are needed in order to effect this change. No longer should resource management focus on one aspect such as monetary compensation or tenure, but rather the distribution of equity and empowerment in a manner that allows for constant renewal of sustainable resource use tactics (Berkes, 2004). In a global environment of dynamic markets, fluctuating foreign aid and conditional loans, political regime changes and increased globalization it is dangerous not to embrace adaptability. This is especially true when you factor in the potential impact of a growing rural population on forest resources.

To ensure the continued participation of communities, it is important to encourage sustainable development whenever possible through incentives for local foresters and environmentally conscious communities (Peluso, 1993b). Reward those individuals and communities who are assisting in the sustainable use of the forests through their actions. Government planners and conservationists could continue to alienate through a protectionist approach or they could opt for a cooperative approach that keys in to ecology, social justice and local politics (Wilshusen et al., 2002). Decentralizing power to corrupt local governments or disempowered communities will fail to achieve successful forest management when they lack the capacity to overcome future corruptive influences. Devolution requires a cautious approach but one that still results in participation and not just consultation (Berkes, 2006). With the right system of checks, balances, transparency and incentives, communities are less likely to regress to unsustainable practices, but will work towards better resource management.

**Marginalization of actors: women and the poor**

Whilst taking into consideration the local socio-economic and political situation, the trick is to maintain awareness of the negative repercussions of development projects. Gender plays a crucial role in the successful resource management programs. Women are, for the most part, the gender most intimately connected to the harvesting, the planting and extraction of natural resources (Bruce, 1989). Their decision-making and their adoption of resource management institutions is vital to project success. Gender inequalities, however, are prevalent in the developing world and represent a major challenge to project implementation. In most developing countries women are rarely given tenure over land or trees despite their significant investment and ties to both (Bruce, 1989; Peluso, 1993b). These power relations must be recognized or inequity will be exacerbated by projects that may have been implemented with the best of intentions.

In many agroforestry programs throughout the Gambia, these considerations were not acknowledged and the projects were later found to have been used by men as a method to wrest control of land from women through the planting of trees (Carney, 1993; Schroeder, 1993, 1997). Fortunately, the trend has been towards the integration of women into community councils and management organizations, but more must be done to ensure the equal empowerment of the sexes. A project that distributes tenure and empowerment into the hands of the elites will fail at instituting ownership and true participation by alienating the poor and marginalized. Those same poor and marginalized groups are usually the ones that turn to unsustainable resource use practices when conditions fail to improve for them (Bruce, 1989). Just as the World Bank's privatization of farmland for small farmers and the conversion to a market-based crop system failed in many respects (Payer, 1979), so can the indiscriminant construction of forest management institutions cause further widening of inequality and marginalization.

**Literature review conclusion**

This literature review serves to highlight most of the major considerations surrounding the debates on community forestry, tenure and gender rights. Keeping in mind the dual goals of conservation and sustainable management, I analyzed various setbacks and improvements in forest management institutions as development practitioners and governments worked towards these goals. Reviewing the history of ICDPs in the developing world, I showed the conflicting results of projects, which may have succeeded in addressing either conservation or rural development, but rarely both. The ICDP experience did however help to refine forest management approaches to address the goals of community development and resource conservation through a more participatory approach. It was not until the blame for deforestation shifted away from the rural poor though, that governments and development agencies were able to instill trust and confidence in the community's management of

their forest resources. Along with this confidence, however, was needed an educated wariness of local intentions towards resources in the face of abject poverty and economic temptations.

In my analysis of the community, I brought up Agrawal and Gibson's (1999) argument insisting on the importance of identifying the heterogeneity of community composition. This includes looking at communities as a conglomeration of varied interests, needs, norms and individuals to design a more inclusive approach to avoid elitism, inequality and continued marginalization. Furthermore, the needs and expectations of outside agencies, as compared to the communities', must be borne in mind to avoid the perpetuation of the elitist system of wilderness conservation, which works to the detriment of dependent forest communities (Neumann, 1998). By recognizing the different values that the communities and outside actors place on forests, it becomes easier to adapt a more integrated approach (Gibson, 2001). Drawing from the warnings of Chapin (2004) regarding the imposition of conservation values and goals on communities allows for a bridging of interests among governments, locals and PVOs (Alcorn, 2005; Brechin et al., 2002).

Participation is not an easy objective to achieve when faced with communities that may destroy their forest resources (Western et al., 1994) and with those that have been labeled as exploiters when, in actuality, they have been conserving their forests (Fairhead & Leach, 1996). The question I ask is "how we can provide the incentives to encourage participation and ownership of sustainable forest management and conservation?" Tenure is indubitably linked to sustainable resource use (see among others: Barbier et al., 1997; Bassett, 1993; Bruce, 1993; Mendelsohn, 1994; Poffenberger, 1990), yet arguments abound over whether ownership and market forces will ensure conservation. John Bruce (1993) states that tenure reform is an important step in providing impetus for community integration into resource management projects. In this paper, I promote the granting of limited communal usufruct rights for forest products alongside a measured amount of state oversight and, if needed, PVO involvement.

Discussions on forests must mention Hardin's (1968) tragedy of the commons argument which states that when individuals have access to a resources that will directly benefit them, but whose costs will be borne by the group will over exploit those resources to the detriment of all. Although this argument has its validity in certain situations, communal forest tenure systems offer an alternative to this exploitation trap. Elinor Ostrom's (1990; 2001) set of design principles for enduring common-pool resource institutions offers feasible solutions to this predicament. The devolution of tenure to communities as a whole sidesteps many of the pitfalls of individual overexploitation for selfish gain. Communal losses are unacceptable in a properly functioning common-pool resource institution. Despite the arguments of Brockington (2002) and Terborgh (1999) emphasizing the need for authoritarian state involvement, many authors promote a more complete devolution of management power to the community level (Murphree, 2005; Peluso, 1993a; Wilshusen & Murguia, 2003). A more holistic approach encourages state involvement and more integrated local government participation resulting in higher local participation (Ribot, 1998).

Adaptive management strategies seek to draw from the heterogeneity of communities and individualize incentives and compensatory mechanisms to each party. However the focus of this participatory approach is not financial compensation, but rather increased opportunities for participation in the actual decision-making and management of the forests (Berkes, 2004). Not only will it be necessary to give compensation to participants in an empowering way, but the institutions will also need to retain the resiliency and robustness to compensate for changing community compositions and power dynamics. In this paper's focus on the integration of customary and traditional practices into forest

management institutions, one must exercise caution in the acceptance of *all* customary and traditional practices. Many aspects of customary law fail to give equality to certain community groups exacerbating inequality and perpetuating elitism. In particular, women are neglected in the political arena, yet with the introduction of novel forest tenure institutions, the opportunity arises to begin this process in an egalitarian manner.

**Research Methodology**

In order to research issues surrounding community forestry, tenure and institutions, I derived my knowledge from a comprehensive review of published material and website information. The information for the case study analysis of community forestry issues in The Gambia originates from studies on tenure, resource management issues and Gambian community forestry experiences from a variety of sources. In addition to the literary research, I incorporate my personal experience of over two years of forestry experience in the Sene-Gambia region to support various conclusions, mainly relating to cultural and gender practices.

In the discussions concerning tenure issues in The Gambia, I relied heavily upon the Land Tenure Center's report by Mark Schoonmaker Freudenberger (2000) "Tenure and Natural Resources in The Gambia: Summary of Research Findings and Policy Options." This report details the tenure issues occurring within the country and provides in-depth analyses of both historical and recent cultural practices and customary land tenure arrangements. Another invaluable resource has been Foday Bojang and Dominique Reed's (1998) report "Community Forest Ownership: Key to Sustainable Forest Resource Management. The Gambian Experience" from the International Workshop on: Community Based Natural Resource Management (CBNRM).

Other key sources were Schroeder's (1993; 1997; 1999) and Carney's (1993) writings on gender issues as they have related to agricultural and natural resource management. Sonko, Samateh, Camara and Beck's (2001) report "Why don't they come and discuss together? Community-initiated stakeholder co-ordination on forest fire management in rural Gambia" from the FAO & FireFight South East Asia's conference *Communities in Flames: Proceedings of an International Conference on Community Involvement in Fire Management* was equally valuable in providing information concerning internal mechanisms for conflict resolution and forest management. Other sources, cited in the case study section, also provided supporting data and information for discussion on related forestry and rural development issues in The Gambia or West Africa in general.

The research methods for this paper also include acquisition of GIS data for analysis of forest cover levels in the Kiang West District. I obtained these raw imagery data from the Global Land Cover Facility, University of Maryland to compare two multi-spectral vegetative cover data sets from two temporal periods, 1988 and 2000, in order to compare forest cover before and after the adoption and integration of community forestry projects in the Kiang West District.

I decided to omit these geographic information system (GIS) data owing to accuracy and applicability problems. The data were difficult to isolate for forest cover as opposed to other vegetative cover using a soil-adjusted vegetative index (SAVI) (Huete, 1988) due to lack of groundtruthed spectral signature data for forest cover. Further research to validate the data could have possibly contributed to this discussion and therefore this omission represents a potential gap to be filled in future monitoring and evaluation of community forestry projects.

## Case Study Analysis of Forest Management Practices and Tenure in The Gambia: Communities and the Forests of the Kiang West District

This section will look at community forestry (CF) and forest management techniques as a balm to deforestation and the use of land tenure for improving community participation and empowerment. I will evaluate the success of a Gambian CF project in achieving ownership and equitable participation by communities in the sustainable management of its forests and extrapolate on the potential for success of the Gambian CF system overall. I have chosen The Gambia as a case study as I have over two years of forestry and agroforestry work experience in this region of West Africa. My time in West Africa allowed me to become intimately familiar with the cultural practices, customs and language of the dominant ethnic group in The Gambia, the Mandinka. The Gambia is one of the smallest countries in Africa and is an enclave of Senegal, sharing all of its terrestrial borders with this larger country. While The Gambia has a total land area of only 10,000 square kilometers, 47% of that (4,710 square kilometers) is classified as forest (World Bank, 2006).

The Gambia is a former British colony that established its independence in 1965. The Gambia River and its watershed provide most of the country's population with agricultural and livelihood opportunities. The natural resources of The Gambia are vital to the well-being of the population and support the primarily agrarian economy. The country has 73.9% of its 1.64 million people living in rural areas (FAO, 2006). With about 75% of its population depending on crops and livestock for their livelihood, their tie to the existing soils, water, land and natural environment is crucial to their survival (CIA, 2007). However, with a life expectancy of only 54 years and a GNI per capita of only US$290, The Gambia remains one of the poorest countries in the world (World Bank, 2006). Much of the culture is also shaped by the religion of Islam, which is practiced by 90% of the population (CIA, 2007).

### Forestry in The Gambia

The establishment of the Gambian Forestry Service in 1950 started a movement of consolidation of the country's natural resources into the hands of the state. Just as in many other tropical countries around the world, the government of The Gambia focused on reinforcing their power and claim over their forests. The Forest Act of 1977 gave jurisdiction of forests to the Minister of the Forestry Department and Natural Resources and Environment to delineate and control access to forests. This Act, in conjunction with the Wildlife Conservation Act of 1977, placed innumerable *de jure* restrictions on the actions and livelihoods of much of the rural population and resulted in feelings of alienation and resentment towards the state (Bojang & Reed, 1998; Freudenberger, 2000). The Forest Regulations of 1978 further exacerbated the situation with the legitimization of these expropriations of rights and ultimately led to the adoption of destructive forest practices by the rural peoples as a form of retaliation (USAID, 2002).

Media attention focused on irreversible loss of forest cover during the 1980's and 1990's and much of the blame was placed on the rural people. In 1980, a survey by GGFP (Gambian-German Forestry Project) concluded that deforestation was the result of unsustainable forest resource use by the Gambian locals (Schroeder, 1999). In a 1996 World Bank assessment on energy demands in West Africa, The Gambia is described as having the highest potential deforestation rates in the study region owing to an expanding agricultural frontier and the accompanying demand for fuelwood (World Bank, 1996). In many aspects of development work however, erroneous assumptions and causal relationships can misdirect efforts.

The environmental crisis that was forecast in the 1970s has not come to pass in The Gambia and although natural resources are in a state of decline, fuelwood and population pressures did not have as significant an impact as originally predicted (USAID, 2002). Some believe that fuelwood demand is not the primary culprit of permanent deforestation (Ribot, 1999) and that, despite population growth, rural peoples have often times been responsible for the increase in forest cover when left to manage forest resources on their own (Fairhead & Leach, 1996). This projected crisis did however contribute to the large-scale push for reforestation programs in The Gambia in the 1980's.

In 1980, the Gambian government, along with a German development agency, GTZ, started the Gambian-German Forestry Project (GGFP) to address management and conservation of the country's remaining forested land. The GGFP would later become one of the largest contributors to the Gambian Forestry Service and would help them to draft the Gambian Forest Management Concept (GFMC) in 1994/1995 and the community forestry idea of 1991. It was during the late 1980's that the Gambian government recognized that afforestation and plantation forestry were inadequate to the task of maintaining both forest cover and biodiversity and they instead focused on forest regeneration and protection of existing forest resources (Schroeder, 1999). With this discovery came the subsequent revelation that the government did not have the capacity to manage the forests and that they must change from a policy of regulation to empowerment. The Forest Policy of 1995 therefore shifted legislation to include communities and the private sector in the management of the forests (USAID, 2002).

**The Realities of Forest Cover in The Gambia**

The Gambia showed a 0.4% increase in forest cover[1] between 1990 and 2005 with an estimated 100% of forested lands being under public ownership[2] (FAO, 2006). This positive change is in contrast to neighboring Senegal's -0.5% and Guinea's -0.7% change in forest cover, while the average change in western and central Africa is -0.6% (FAO, 2006). With statistics such as these, it is hard to recognize the danger threatening the forests of The Gambia. What the statistics cannot show is that although total forest cover may appear to be growing, there could be a loss of those forest ecosystems that harbor the greatest amount of biodiversity. Woodlot production, plantations and heavily managed forests cannot replace the invaluable closed natural woodland forests or minimally disturbed savanna woodlands. Therefore, despite the fact that 47% of Gambia is classified as forest, 39.6% of the land is actually tree and shrub savanna and savannah woodland and only 1.1% consists of closed woodlands, with the remaining 5-6% forest cover found in the mangroves[3] (The Gambia, 2000). Within the classification of forests, it is therefore important to focus on forest areas that have rich biodiversity and those that contribute to the general forest cover of the country and alleviate forest product pressures. The term 'deforestation' often oversimplifies the complex nature of natural forest loss and replacement through plantations and natural regeneration and gives only a net loss of forest cover, which fails to take into account the changing forest type composition.

[1] According to the FAO Global Forest Resources Assessment 2005, forest cover is measured by subtracting land deforested for agriculture or other purposes and from natural disasters and adding forests gained from afforestation and natural regeneration of forests to the total forest cover.

[2] FAO only used two classifications of ownership: public OR private. Thus communal ownership arrangements are included in the public ownership category along with state-managed and state-owned, community-managed forests.

[3] The Gambian National Environment Agency (NEA) defines closed woodland as having more than 60% crown cover, woodland savanna as having 20-60% crown cover and tree and shrub savanna as having crown cover of between 2 and 20% (Sillah, 1999). Interestingly, by comparing the FAO statistic of 47% forest cover in The Gambia with the vegetation classes, it becomes apparent that tree and shrub savanna with as little as 3% forest cover would be included in the 47% total forest cover statistic for the country.

The Gambian government has made a commitment to keep 30% of land under forest cover and have 75% of that managed by communities indicating a huge commitment to decentralization of forest management in the country[4] (The Gambia, 2000). The Gambian government has approached that goal through partnerships with USAID, GGFP and other development organizations to help institute forest management projects throughout the country. These forestry projects have manifested in the form of several different management schemes ranging from protected, off-limits forest parks and reserves to individually owned or community forests (see Table 3). Alongside these natural forest management schemes are projects such as USAID's Gambia Forestry Project of 1979-86 which focused on alleviating the aforementioned crisis scenario of fuelwood through creation of fuelwood woodlots (Church & Laarman, 1996b).

**Table 3.** Gambian Forest Management Strategies & Community Involvement (source: Schindele, 2001, p. 7)

| **Management Option** | **Forest Status** | **Degree of [community] involvement** |
|---|---|---|
| State management | Forest Park<br>Forest Reserve | Minor |
| Joint forest park management (JFPM) | Forest Park | Consultative and co-operative, sharing of benefits and tasks, access to forest products based on mutually agreed conditions (e.g. cattle browsing, etc.). |
| Community controlled state forest management<br>(CCSF) | Forest Reserve | Management function, but directed by FD |
| Community forestry<br>(CF) | Community Forest | Decisive |
| Private forest management | Private Forest | Decisive |

Unfortunately, what USAID discovered is that villagers wanted fruit trees and vegetables as opposed to the timber and fuelwood species, *Gmelina arborea*, which their project was trying to promote (Church & Laarman, 1996b). This $1.6 million USAID 'farm and community forestry' project "had virtually no success" in The Gambia (Church & Laarman, 1996a, p. 7). This failure is a common occurrence in tropical forestry work in developing nations where the participants are more worried about food security than the pressing environmental agendas of the west. Additional focus should be placed on market based opportunity generation. John W. Bruce (1993, p. 36) states that "African farmers often stand with one foot in subsistence and one in the market", while Tania Li (2001, p. 175) takes the idea a step further by explaining that "...conservation efforts that are consistent with the market-related economic strategies of resource users are more likely to be effective than those that overlook them, or bury them in a rhetoric of subsistence."

One of the more influential players in the forestry sector in The Gambia has been the German led GGFP, which has been directly involved in the establishment of forest parks and national parks

[4] According to the Gambian National Forestry Action Plan, the 75% of community-managed forests will include forests that are owned and managed by communities as well as those forests that are owned by the state yet placed under the management of the communities.

throughout the country. The GGFP also initiated the first CF in the country. Yet GGFP approaches have also come under fire for hiring too many staff and thus working under the yoke of budget restrictions and retarding capacity to initiate good community based forest management projects (Schroeder, 1999). Although room for improvement is ever-present in forestry programs, the successes seem to outstrip the failures in moving the country closer towards its goal of having 75% of its forests under community management. Later in this chapter, GGFP's involvement in forest management and community participation in the Kiang West District will be examined.

**Gambian Forest and Land Tenure**

> The literature on land tenure in Africa hypothesizes that increased agricultural productivity and sustainable management of natural resources are facilitated through a process of strengthening of individuals and/or community rights to the land.
>
> - Mark Schoonmaker Freudenberger (2000, p. 7)

The Gambia works on the same system of state-controlled forestlands that much of West Africa employs. The state took control of forest resources as far back as 1938 in the colonial system, removing forest control from the hands of village chiefs, or *alkalolu*, from which they have traditionally been held. With this shift in control of forest resources, a sense of alienation arose within the communities and a lack of investiture in the future of their forest resources. The withdrawal of community stewardship and resultant deforestation became one of the main drivers for decentralization and devolution of forest control to the community level. Within The Gambia in particular, there has been a recognition that investments of labor and energy will not take place without tenure security, yet even today the government is reluctant to cede those rights (Church & Laarman, 1996b). It is through the efforts of forward-thinking government officials and outside agencies that The Gambia has pushed this agenda further and made the devolution of rights and securing of tenure more of a reality.

The whole concept of land registration is a foreign concept to the traditional tenure arrangements of Africa and yet many of the African nations still continue to work towards this goal (Dickerman, 1989). Land tenure is being shifted to one of modern, documented, state-controlled entitlement. What is unique about The Gambia is their retention of customary and traditional tenure arrangements; rights that are recognized by the law. Land rights are dictated by class-based inheritance, settlement claims and through claims affirmed by the *alkalolu* in flexible, verbal arrangement that maintain their adaptability within stochastic rural populations and agricultural demands. In his report, *Tenure and Natural Resources in The Gambia*, Freudenberger states that "[i]n contrast to other African countries, the citizens of rural Gambia enjoy considerable tenure security." (2000, p. 4), but then he follows up that statement by concluding that "[t]enure insecurity in the commons is often high in The Gambia." (2000, p. 6). This is especially important to note as the focus of this paper is on forest resources that represent *de facto* commons in The Gambia despite the existence of exclusionary laws and regulations.

In 1946, Gambia's Land Provinces Act gave land management decisions over to the *seyfolu* (district chiefs) at the district level and to *alkalolu* at the local (village) level and was later reaffirmed in the State Lands Act of 1990. While this undermined the authority of *alkalolu* to make some resource management decisions, much of the customary system remained in place. With the implementation of the 1977 Forest Act, the forest resource rights were then fully usurped from the communities in a state bid for power. Not all was lost to the communities as the Forest Act stipulated the option for the Minister of Forestry Department and Natural Resources and Environment to collaborate with communities in forest co-management (Freudenberger, 2000). This inclusion of communities was later cemented in the GGFP's GFMC and the 1998 Forest Act cementing the role of locals through CF.

Inclusion of the communities is integral to forest management and tenure is one of the most important methods of encouraging participation. Natural resource problems within the commons, including the decline of forest products like bamboo, rhun palm, wild game and thatch grasses, is seen as being a result of insecure tenure rights in Gambian forests (Freudenberger, 2000). There was no incentive for communities surrounding state-controlled forests to conserve their resources. One way to address this problem is to give the communities access to the benefits of the forest in exchange for maintenance and enforcement of forest resources. The role that tenure plays can vary dramatically with the state's approach of either working with customary tenure arrangements or in imposing foreign systems of ownership.

> One of the great strengths observed in customary tenure systems is flexibility and adaptability to changing circumstances
>
> -Mark Schoonmaker Freudenberger (2000, p. 2)

Customary tenure systems in Africa are not given enough credit for securing land ownership rights and having the capacity to manage resources in a sustainable manner (Dickerman, 1989). The Gambia's mixture of Islamic, customary and legal tenure arrangements make for a complex and strong system, but one that is also not without problems. Due to this conglomeration of tenure arrangements there are unclear discrepancies among their jurisdictional overlap (Freudenberger, 2000). Rights or conflicts that occur within the framework of one system may be contradicted within another. Often disputes are resolved by elders, *alkalolu*, *seyfolu* or *imams*[5] (Muslim religious leaders) before reaching the district court system. Despite the fact that the state may have ownership rights to land, customary jurisdiction still regulates many disputes that do not make it to the state government level. Customary tenure systems draw their strength from the fact that they are attuned to the vulnerable classes, the management of risk and the specific socio-economic environments that make up the village dynamic (Bruce, 1993). Examples of customary tenure arrangements will be explained in the following sections.

Outside involvement in local land management places pressures on customary tenure and brings to light its weaknesses and strengths. For example, government planners that come in to communities to implement irrigation schemes will often disrupt customary tenure systems through a reallocation of land. Depending on the success of the project, the communities may end up returning to their customary practices following the completion of the project (Freudenberger, 2000). This return to customary arrangements and traditional conflict resolution was also found in Gambian villages I visited which refused to go through the modern legal channels and instead resolved their disputes through customary means. In many cases, villagers that broke bans on fires or harvested forest products illegally were dealt with through an informal chastisement and labor fine as opposed to a state-mandated monetary fine that might never be collected from destitute villagers. Often the strengths of peer enforced social norms surpass the ability of legal regulations to alter behavioral patterns.

[5] *Imams* are Muslim religious leaders that are very intimately involved in the political machinations of village life, as their sphere of influence can be greater than that of the village chiefs'. This is due to their spiritual leadership and advisory role in a plethora of matters from marital disputes to land and resource use issues.

**The Start of Gambian Community Forestry**

In 1991, the first Gambian community was given communal rights to manage a state forest. As of 2002, CF is present in more than 500 communities on 25,000ha of forest land (Sonko, Samateh, Camara, & Beck, 2002, p. 104). Stemming from selfish motivations, the state initiated CF as a way to devolve responsibility but maintain managerial control (Schroeder, 1999). The initial goals of CF seemed less about empowerment and rural development and more about reducing costs of preserving forest resources for the state.

During state forest management, rural perceptions of forests were indifferent or negative as many rural farmers viewed forest as belonging entirely to the government and therefore forbidden fruit or illicit sources of products. The challenge was to change the perceptions of the local communities to see the forest as a potential resource for the mutual benefit of both the state and their families. Thus in the late 1990's the government of The Gambia and development organizations collaborated in order to address the communities' needs for perceived benefits. The result was the shift in Gambian government policy to adopting a nationwide CF program culminating in the 1998 Forest Legislation (Bojang, 1999).

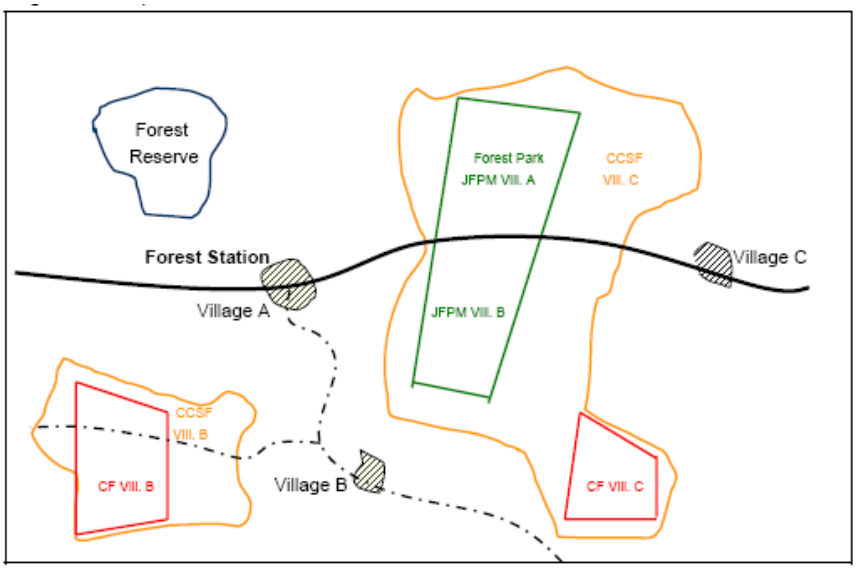
The secondary benefits of community forests seem small when compared to the high value of the timber resources as a whole. When viewing the forest resources from a purely economic perspective the value of medicinal products, building materials, game meat, and other non-timber forest products (NTFPs) pale in comparison to the value of the exotic hardwood species. For the villagers, however, the benefits of access to forest products seem to be worth it. Applications from communities for new community forests as well as for expansion of existing community forests have been increasing dramatically (Bojang & Reed, 1998). The GGFP and the government of Gambia sought to purposefully steer away from direct compensation for forest protection and maintenance activities in their forestry programs. The rationale for this was that the villagers should not receive direct compensation, as that would place an outsiders' value on their forest management activities as opposed to a locally perceived value. "Actually, the absence of compensation strengthens [the communities'] sense of ownership and creates strong ties between villages and their forest" (Bojang & Reed, 1998, p. 7).

Communities gain community forest access only after following a process of application and conditionality. The process for CF (community forest) status consists of an application, a preliminary phase and final granting. Communities must create a forest committee composed of men, women and youth and based on existing authoritative structures and then submit an application for delineated forest areas (Bojang & Reed, 1998; Schroeder, 1999). The committees will then draft up a Preliminary Forest Management Agreement (PCFMA) which requires them to perform maintenance and protection services for the Forestry Department for up to three years while receiving little to no benefits from the forests (Schroeder, 1999).

Following successful completion of the PCFMA, the Forestry Department will then enter into a Community Forest Management Agreement (CFMA) with the village. Communities have to manage the forests through a relatively simple management plan drafted by the Forestry Department with input from the communities. Traditional leaders, village chiefs, are usually made the customary owner(s) in a communal ownership system based on pre-existing institutions and the forests are turned over to the communities on 99 year leases (Bojang & Reed, 1998). Some obligations for the communities are to set up firebreaks and greenbelts, follow the management plan for timber harvesting usually consisting of harvesting cleared trees for firebreaks or culling, and replanting ten seedlings for every tree felled.

This system was detailed in the Gambian Forest Management Concept (GFMC) which was created with cooperation from the Gambian Forestry Department and the German development agency, GTZ (Schindele, 2001). Within the broad scheme of forest management in the country, CF filled one role of many. The grander scheme envisioned within the GFMC was one of integration and decentralization of forest management to a local level. Forest Stations would be centrally located to provide technical assistance and advice to surrounding community forests as well as to serve in an enforcing capacity for the nearby forest parks and forest reserves (see Figure 1). This diversity in management schemes is useful for creating buffer areas around less patrolled forest park and reserves areas through the establishment of adjacent community forests.

**Figure 1**. Example of forest station nucleus with CF and JFPM (Schindele, 2001)




With a much greater labor pool, the idea was that communities would be able to monitor and enforce forest regulations much better than the understaffed Forestry Department. The government was also hoping to curb the extremely destructive bush fires commonly perpetrated by rural farmers, hunters and pastoralists. What was in it for the communities then? Whereas the use rights *were* limited, they did still encompass substantial rights for a variety of forest products. In an FAO study on Gambian forest products, fuelwood, timber and honey, three products obtainable in community forests, were found to be the most profitable (Thoma & Camara, 2005). The CFMA gave communities the ability to set prices on these and other forest products as defined by their management plan for different groups: resident participating community members; non-resident participating members; and non-participating individuals (Schindele, 2001).

Communities are also required to set up a community forestry fund from which 40% of profits must go to forestry-related activities and then the remaining funds can go to community development (The Gambia, 1998a). By allocating 40% of the fund towards forest management activities, the state further decentralizes forest management and significantly reduces state funding of forest maintenance costs. One criticism of this GGFP-community forest system, however, is that the rigid structure of CFMAs rob the communities of their creative potential for management and marketing (Schroeder, 1999). Although this critique is well founded, a strong state presence and regulatory approach is necessary for compliance and risk management. Despite this initial strong regulatory approach, the state must recognize the importance of a continued devolution and decentralization to communities to inspire positive, sustainable local action. The following section will analyze community forest management in the specific regions of the Kiang West District focusing on the villages of Dumbutu and Batelling.

**Forests in the Kiang West District**

The Lower River Division (LRD), which contains the Kiang West District, consists of 45.0% tree and shrub savanna or savanna woodland[6] (The Gambia, 2000). This savanna classification covers the forested lands that communities within the Kiang West District are managing (GTZ, 2002). As in other areas of the country, the Kiang West District has a history of state expropriation of forest lands which has spurred resentment and illegal exploitation of the national parks (Kirstein, 2000; Sonko et al., 2002). Additionally, the fires that represent such a threat to the forests in The Gambia are especially severe in the LRD as it is located in the transition zone of the hot, dry eastern climate and with the temperate, humid western climate. Tall, savanna grasses thus dominate the landscape offering tinder for fires when dry (Thoma & Camara, 2005). The proximity of the Kiang West District to the capital city, Banjul, also puts enormous pressures on the forests to supply the illegal fuelwood trade.

The Kiang West National Park (KWNP) covers 2,600 hectares and is surrounded by three similarly state-controlled forest parks. The KWNP is a forest reserve (refer to Table 1) which grants no tenure rights to communities, while the surrounding forest parks give only conciliatory use rights to nearby communities for grazing or medicinal harvesting. In contrast, the community forest gives more secure tenure through a granting of both management and use rights through the CFMA and the 99-year lease. The KWNP was traditionally a vast resource for the surrounding communities and the loss of open access created pressures on fuelwood, grazing, building materials and hunting. In addition, the ban on hunting created a significant problem in the form of crop-raiding bush pigs. Without hunting, the bush pig populations were developing into a severe pest problem. As the KWNP was a state-controlled and regulated Forest Reserve, there was minimal community involvement as opposed to the nearby Nganing-Koi forest, which became a community forest for the village of Batelling.

> The KWNP is a case in point for other nature parks and reserves that have restricted access by the local population, offering (at best) financial compensation to them for being deprived of any benefits. This is especially grave in a case like Batelling where subsistence livelihoods depend on the supply of local natural products and where inefficient (yet exclusive) management of these "protected" areas by state agencies can lead to detrimental events - such as forest fires - and severe hardship for the community.
>
> - K. Sonko, S. Samateh, K. Camara and C. Beck (2002, p. 110).

The village of Batelling created a Forest Committee that included youth and women representatives, the *alkalo* and the *imam*, and which applied for community forest status. In 1995, Nganing-Koi Park was given over to the village through the PCFMA and they subsequently received full rights in 1999. Nganing-Koi is adjacent to the KNWP, which has acted as a buffer for poaching and timber harvesting access as well as subjecting the park to increased fire hazards from the less well-maintained KNWP. Batelling now has the second largest CF in Gambia and it is the largest CF managed by a single village with 800ha under control (Sonko et al., 2002). The success of Batelling in fire management of Nganing-Koi will be examined in the context of their synergy of customary and modern legal systems.

[6] The LRD consists of 0.5% closed woodland 10% savannah woodland, 35% tree and shrub savannah with the same canopy classifications as discussed in footnote 3.

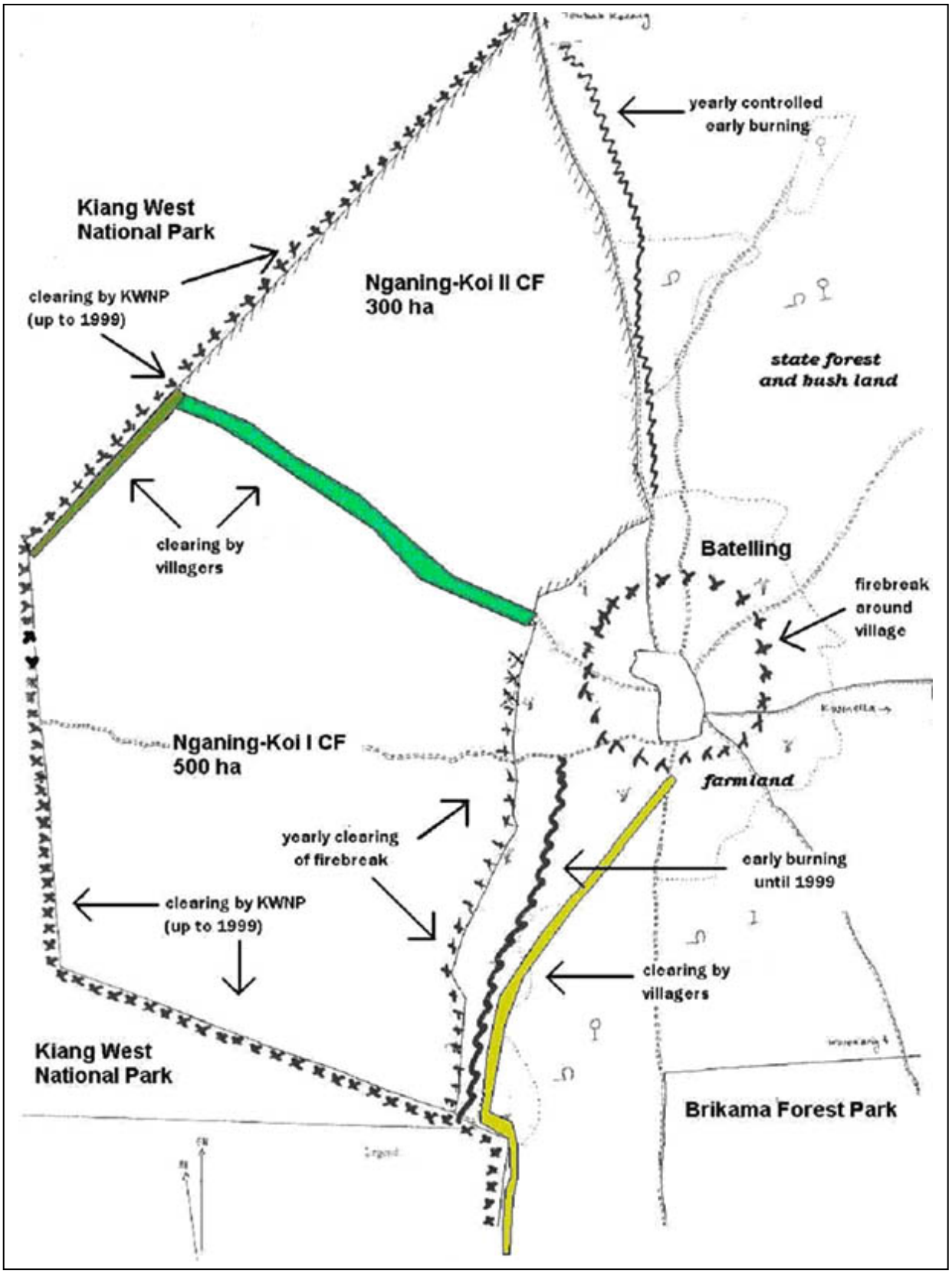
**Finding the Balance between Customary and State-Imposed Tenure Regimes**

Customary tenure systems have the advantage of being time-tested and locally accepted. As opposed to state-imposed tenure systems which many times comes from western notions of property management and rights, customary tenure systems have adapted from systems established in the dynamic environment of poverty, subsistence farming and community living that make up most of the developing world. Particular attention should still be given to the failures of customary tenure arrangements to compensate for short-term decision-making resulting from increased population pressures, an expanding agricultural frontier and market pressures for goods such as timber and bushmeat. Yet the resiliency and robustness of customary institutions must be utilized as much as possible to maximize the efficiency of forest management regimes. The following examples illustrate several mechanisms that have incorporated both customary and imposed tenure and management regimes in the Gambian case study.

The requirements for fire management of CF's, private forests and forest parks are outlined in the 1998 Forest Regulations (The Gambia, 1998b). While these requirements may be a *de jure* reality, the actual implementation of successful management strategies fully requires the cooperation and participation of the communities. In the case of Batelling the participation and ownership of this regulation has been admirable. Utilizing four volunteers to patrol for illegal activities such as setting fires, harvesting timber and poaching, this monitoring alongside an effective system of fines has proved invaluable to their fire prevention (Sonko et al., 2002). "The success of Batelling's forest management, particularly their fire prevention activities, clinched them two prestigious prizes: in 1997, the first divisional prize from the National Environment Agency, and in 1999, the national award of CILSS (Permanent Inter-State Committee for Drought Control in the Sahel). The prize money amounted to 20,000 Dalasis (about US$1,300)" (Sonko et al., 2002, p. 107).

This is in direct contrast to the nearby village of Dumbutu which borders the KWNP and as a result of firewood pressures, grazing restrictions and bush pig harassment has engaged in retaliatory activities such as setting fires and poaching (Bruce, 1998a). Customary regimes which would otherwise have regulated these illicit activities were discarded when use rights and tenure over the forests was taken from the communities. Without the access to forest benefits and without ownership and investment in the sustaining of the forest, the community was forced into activities that reinforced the image of rural farmers as incompetent natural resource managers. With the benefit of more secure tenure, Batelling demonstrated better management of their CF than the adjacent state-controlled KWNP whose neglected firebreaks actually resulted in the burning of Nganing-Koi from fires originating in KWNP. Batelling once again showed their initiative and called a meeting of all the stakeholders of the KWNP (Forestry Service, surrounding villages, and KWNP management) to discuss fire management. This was an example of community (not state) led initiative drawing from customary conflict resolution mechanisms.

**Figure 2.** Fire Management of Nganing-Koi Community Forest and Village of Batelling and KWNP (source: Sonko, Samateh, Camara, & Beck, 2001)



Gambia's hosting of the 1999 international workshop on community forestry in Africa is indicative of their successful programming of community forestry. This success of community forestry in The Gambia has been attributed, to some extent, to the PVOs who have helped initiate these participatory forest management strategies (Bojang, 1999). Whereas The Gambia has been a leader in Africa for its devolution of rights and tenure to the communities in its CF program, there are still major setbacks stemming from the state level. The Market Analysis and Development (MA&D) methodology was created by FAO for forest product enterprises and thus approaches forest conservation from an economic basis. The MA&D concluded that poor enforcement by the state resulted in unfair competition with legal community forest products (Thoma & Camara, 2005).

The MA&D concluded that poor enforcement by the state resulted in unfair external competition with legal community forest products (Thoma & Camara, 2005). Forest products produced in a legal and sustainable fashion by the CF communities were unable to compete with the illegal goods flooding the market from inadequate state regulation. This is but one example of how gaps in a statewide administration of forest policy and institutional forestry regimes can weaken participatory natural resource management. On the other hand, this example only serves to reinforce the need for a strong state presence in CF. Seemingly benign empowerment schemes often fail to produce the desired result without the backing of legislative safeguards and protective mechanisms from the state level.

The adaptability of customary institutions to emerging conflict areas can be analyzed with respect to a Peace Committee in the Kiang West District. In an FAO study by Sonko and Beck (2003) a Peace Committee, represented by *alkalolu* from six different villages, was created to resolve regional conflicts with regards to community forest disputes. Although the conflict resolution mechanism is outlined in the Forest Act of 1998, there is still considerable flexibility with how disputes are resolved. In the beginning of this dispute involving two villages arguing over a community forest boundary, a respected local elder, then living in his village of origin, was called in to mediate the dispute (Sonko & Beck, 2003) When this failed to achieve the desired reconciliation, the *seyfo* resorted to using the Peace Committee to mediate the dispute. Although the dispute was not definitely resolved, this use of alternative methods of customary resource conflict mechanisms is an excellent example of integrating customary and legal frameworks for community forests.

An overview report on the International Workshop on Community Forestry in Africa (Bojang, 1999, p. 12), held in Banjul, The Gambia in 1999, states that "[w]herever possible, existing traditional institutions are used in planning, organization, implementation and benefit sharing at the community level (e.g. the Gambia)." Following traditional practices such as resorting to the wisdom of elders is a common occurrence in The Gambia as exemplified by a Mandinka proverb that states *"Keeba siring ka men jee, dinding looring buka wo jee noo"*, translated as "A seated elder can see what a standing youth fails to see."

In examining the integration of customary and traditional practices, I concluded that the Batelling case study demonstrated success in building or reinforcing existing institutions to encourage increased ownership and participation by the communities as evinced by their community-led conflict resolution efforts. Customary systems are not, however, without their weaknesses and this is especially true with respect to women rights. The lack of secure and fair women's rights to land and resources underscores the need for caution when deciding between state-imposed requirements and customary or traditional systems.

**Women, Tenure and Forestry: The Role of Gender in The Gambia**

Women's tenure rights in Africa, in general, are very undeveloped and lacking (Dickerman, 1989). The novelty of forest tenure institutions and norms does however offer a good starting point for incorporation of women into forest management. In The Gambia, tenure arrangements are complicated and disempowering for women due to the Gambian patrilineal property system. Claims to land for women are often dependent on the status of the women's husband or other male relatives (Freudenberger, 2000). The male community members are expected to provide and manage the land aspects of community life and provide land for the women when they require it for food production, yet the ultimate power resides in the hands of the males. Women receive the most marginal agricultural lands for cultivation, are given manure only after men's fields have received it first and they often have difficulty obtaining agricultural implements in the village setting (Freudenberger, 2000). This inequality in land ownership rights, while possibly being effective in historical periods of low land pressures, is now the cause for recurring land disputes between the genders. Disputes have been well researched and documented in wetlands areas (Carney, 1993; Schroeder, 1993, 1997).

Women typically farm rice in the Gambian division of labor while men prepare land, farm and harvest. Often women also participate in weeding and agricultural field crop maintenance in addition to household duties of food preparation and vegetable gardening. When development organizations enter communities to implement agricultural and environmental development projects, women often are relegated to the role of an unpaid labor pool (Carney, 1993; Schroeder, 1993, 1997). Men are worked with as the landowners and decision-makers of projects and even when projects target women, the benefits of the projects are many times expropriated by males. Examples of this are when males slowly take over the usufruct rights to garden lands through donor-sponsored agroforestry extension projects where males expropriate land when systems transform from women-held wetlands to traditionally male-managed forestry systems (Schroeder, 1993, 1997). Irrigation schemes done in communal wetland areas where women had historically controlled the land result in men taking over control of labor and land (Carney, 1993).

This gradual erosion of customary women's rights to land has not been without opposition. Women have challenged legal and customary rights to ownership of land through creation of women's groups to gain access to land and through other legal schemes to cement their rights to land (Gray & Kevane, 1999). Yet land tenure has continued to be a male-dominated arena with very little ground taken by women. Despite women's entitlement of land from their husbands through customary law, they lack entitlement or tenure through modern law (Bruce, 1998a). This lack of recognition of women's rights to land, and male claims to projects or lands, which incorporate trees, bodes ill for the progression of women's tenure for agricultural lands and even for forests. The major contributors to agricultural labor and management however are often women whose direct link to natural resources should necessitate their inclusion in land and natural resources decision-making (Bruce, 1989).

Forest tenure is an area that is relatively new to communities with regards to ownership and management issues. Communal forest ownership allows the opportunity for women to be included in forest resource management as customary forest tenure is not well defined. To take advantage of the lack of enduring cultural biases towards women involvement in forests, female inclusion needs to be emphasized during forest committee formation. The GFMC attempts to address this need by requiring the inclusion of women in forest committees (Schindele, 2001). Of the approximately 33 members of the Nganing-Koi forest committee, one woman serves as treasurer, three as women representatives and seven women as committee members (Sonko et al., 2001). Taken together, women represent

approximately 33% of this forest management institution in a relatively impressive show of gender incorporation in the patriarchal Gambian society.

Further inclusion of women in resource management institutions must be encouraged and supported during PVO supported projects and through continued state-mandated legislation. Insecure land tenure for women and visiting, or "stranger", farmers actually discourages them from planting trees on lands as that would indicate an attempt to make a permanent claim to the land (Bruce, 1998a). This exemplifies the ideology of customary land tenure and highlights the need for a reconsideration of the value of certain harmful customary norms. Outdated customary practices, which view reforestation and afforestation as a taboo activities serve only to exacerbate local deforestation. Forest management is not solely the bailiwick of men and the elite, as each community member has an equal stake in the preservation of community forest resources. Gaining voice in forest resource management should be a priority for the female cohort who is so intimately connected to the forests through fuelwood harvesting, oyster gathering and medicinal products acquisition.

**The Gambian experience with community forestry**

The choice of The Gambia and the Nganing-Koi community forest was made due to the relevance of customary institutions and the applicability of gender and tenure issues in this specific case study. The Gambia's recognition of customary and traditional law provided an optimal foundation for incorporation of customary practices into countrywide forest management practices. With the primary role of GTZ in the formation of the 1998 Forest Act and the creation of GGFP, this case study also offered an excellent demonstration of the important role that PVOs could play in the creation of CF systems. Community forestry was implemented with major assistance by GTZ, but in such a way as to eliminate dependence on the PVO, instead relying on the establishment of government organizations and strong community-based organizations. An integral lesson to be drawn from the Gambian study is that the creation of the GFMC helped solidify forest policy as well as provide a secure and legally sound tenure and rights policy for the communities. This framework will be invaluable in allowing The Gambia to achieve their ambitious, yet feasible, goals of placing 75% of forests under community administration.

Peer-enforced social norms and customary dispute resolution systems proved stronger and more effective in certain forest management decisions. Alkalolu, seyfolu and imams served as pre-established administrators while the GFMC required further participation and involvement from women and youth. Through their system of incentives through usufruct rights to specified forest products and portioning of forest profits to administrative and community development project costs, the community was persuaded to act in the best interests of both the community and their surrounding forests. Retaliatory acts of sabotage or destructive behavior towards nearby forests occurred in the absence of these incentives, further strengthening the need for compensatory mechanisms.

The village of Batelling represents a successful adoption of community forestry for several reasons. As opposed to the village of Dumbutu, which was disempowered due to the usurping of forest control from the community by the state, Batelling enjoyed a relative increase in forest protection from illegal timber harvesting, poaching and fires. Community ownership of the forest resources and their management, improved community involvement and participation in the decision-making process and increased forest conservation all resulted from the community forestry system of Batelling versus the state-controlled national park bordering Dumbutu. Multiple factors were responsible for this successful program including the role of increased tenure security, more widespread involvement of community members and the restructuring of CF institutions.

When utilizing this case study it is important to recognize the endemic forest composition and classification of Gambian forests before applying the model to other countries' unique arboreal, cultural and political conditions. Forests in The Gambia are quite different from tropical forests found in Cameroon, Congo and Nigeria for example. Furthermore, the traditional and customary institutions found in those countries may differ drastically and offer a completely different set of opportunities for incorporation into their forest management schemes. One consideration that is prevalent in the literature on The Gambia, as well as Africa in general, is the importance of including women, poor and other marginalized actors into the forest management process and creating a robust, gender-inclusive system when traditional systems fail to provide one (Bruce, 1989; Dickerman, 1989; Freudenberger, 2000). This latter point will prove the most difficult to achieve both in The Gambia and worldwide. Yet The Gambia's successful CF adoption statistics of more than 500 communities on 25,000ha of forest land provides optimistic direction for African forest management (Sonko et al., 2002, p. 104).

> I went to Senegal, Mali and Mauritania and saw desert, fewer trees, dust with dry wind and direct heat from the sun – we don't want that to come to the Gambia! We know that we inherited the forest from our forefathers and we should give it to our sons and grandsons of tomorrow.
>
> -Pa Kebba Sanyang (excerpt from Gambian villager's perspective on CF)(1999, p. 56)

## Analysis of Community Forestry, Tenure Arrangements and Adaptive Approaches to Both

### What are the goals of community forestry and tenure reform?

Looking at the history of both failed community based forest management systems and successful programs it is difficult to ascertain the appropriate prescription for decentralized forest management approaches. State governments, PVOs and communities must be able to answer the question of what the goals and objectives of such approaches will be. The questions below are examples of some of these preliminary considerations to be highlighted in the early stages of community forestry.

- Will communities gain the requisite combination of benefits and services that would justify their ownership and involvement in the forest management process?
- What level of devolution and decentralization from the state to the community level will facilitate adoption of community forests?
- What customs, norms and tenure arrangements are already in place and possible for incorporation into a new institutional framework and management regime?
- Are sufficiently adaptive and resilient institutions in place for managing the forest resources?
- Will PVOs work to bridge the gap between state governments and communities?
    - Is their role then one of a mediator and facilitator and how much involvement should they undertake in order to avoid the usurping of ownership in these supposedly community-based institutions?
- Lastly, will *all* community members and stakeholders be identified, included and empowered to achieve the dual goals of conservation and sustainable management?

All of these questions must be addressed before the initiation of community-based forest management institution building to clarify positions, reduce incongruencies in needs and expectations and result in the adoption of successful CF. Circulating within and among these questions is the omnipresent issue of tenure as a tool for achieving ownership and creating incentives to change behavioral patterns. If governments decide to alter tenure arrangements, caution should be exercised with respect to the outcomes and repercussions of the changes. Is a shift from customary tenure institutions necessary to reshape resource consumption patterns? Will social inequality be exacerbated by a shift in tenure and who will be the main actors? PVOs have an important role in coordinating with the state and communities as a third party in order to bring perspective on all of these issues.

Prior to entering into policy formation, it is necessary for all actors to understand the aims of the others and to work at dispelling generalizations and preconceptions that can be detrimental to the process. Communities will be reluctant to work with states that they believe are only exploiting their time and energy for the economic benefits of a distant central government. States, at the same time, need to recognize the value of local customs, needs and abilities as they relate to forest management. Viewing the rural farmers and forest-dwelling communities as backwards and ignorant will only serve to undermine the participatory nature of the agreements and create resentment and retaliation (Alcorn, 2005). This prejudice against rural knowledge might favor approaches that fail to incorporate valuable local institutions that might otherwise be integral to the sustainability of the project.

**Recommendations/focus areas:**
Following this analysis and research of the Gambian CF case study and the review of the community forestry and forest tenure security, I created recommendations for areas upon which to focus attention. The following recommendations are thus areas that require additional attention when designing and implementing CF programs in developing countries. The following five areas of focus represent a partial list of issues to consider and the recommendations suggest alternative methods for achieving success in CF programs.

**1) Instituting flexible forest management and tenure systems using customary practices**
One of the greatest ongoing debates in analyzing tenure practices as they relate to forest management systems is whether to work with existing institutions, which are generally labeled traditional or indigenous, or to create new institutions that will override the existing ones (Arnold, 1998). There is no black or white answer to this dilemma. Existing tenure institutions vary drastically from continent to continent, state to state and even community to community. As opposed to many state-imposed tenure institutions and regimes, existing tenure institutions seem to be composed of interconnected and unique regulations and mechanisms that work effectively within their specific geographic, cultural and social settings.

The decision to work within existing forest tenure institutions is thus a difficult one to make. Preference needs to be given towards approaches that identify viable and efficacious local regulatory mechanisms and conflict mediation techniques that have proven to work within each community and locality. In the Gambian case study, there is evidence that the government's legal recognition of customary law has enabled the Gambian government to implement a more holistic approach to local governance and institution building. Taboo forest activities such as harvesting fruit from a tree under *tongo* (prohibition) and sacred land designations are examples of customary practices that are region-specific, culturally imbedded and which have proven effective at mitigating forest resource exploitation. In The Gambia *alkalolu* are in charge of receiving claims for land and distributing land to village members as well as resolving land disputes (Freudenberger, 2000). Their ingrained authority has worked to facilitate peaceful land transactions for generations. Thus reinforcing the authority of the *alkalolu* and *seyfolu* would also help to strengthen institutional resiliency by embedding forest management in an accepted adaptive system.

Customary forest management institutions should not however be unconditionally relied upon to handle all resource management issues, especially ones that are more recent and out of the scope of traditional familiarity. This is a very difficult issue to reconcile, as many communities living within the vicinity of forests have historically been able to extract resources in a sustainable manner and in the absence of a heavy forest management regime. With the onset of greater population pressures and urban demand for forest products, however, the pressures on forests have many times surpassed the abilities of local institutions to manage. In addition, pressure from outside agencies such as wildlife poachers or charcoal producers seeking to extract forest resources also place great stress on normally functional management regimes. In the USAID Gambia Forestry project undertaken in 1979-86, woodlot production failed to be sustainably managed by communities as the maintenance and distribution of benefits of this novel source of forest products was not clearly outlined and integrated into the existing resource management institutions (Church & Laarman, 1996a). This highlights the importance of recognizing the gaps in customary resource management institutions and accommodating them through institutional reinforcement.

Constantly changing pressure on forest resources is one of the biggest threats to tenure and forest management practices. Yet one observation of customary tenure has been that its ability to adapt to evolving conditions is one of its greatest strengths (Freudenberger, 2000). John W. Bruce, in *Do Indigenous Tenure Systems Constrain Agricultural Development?* (1993, p. 35), states that "[m]ost African farmers cultivate their holdings under indigenous tenure systems. These systems are frequently referred to as "customary" or "traditional," a misleading practice because they change and evolve quite rapidly; often an important customary rule turns out to be only a generation old." This statement steers our understanding of customary (or indigenous in his terminology) institutions away from the misconception that traditional or customary classifications imply static and inflexible systems.

Tenure and management systems based solely on a rigid, one-size fits all approach are destined for failure. Customary tenure systems vary significantly from region to region and community to community for a reason. Each locality has its own composition of cultural practices, ceremonies and interests and each must find a balance of regulation, incentives and governance for its management of distinct resources. Not all traditional resource management strategies will be sustainable and feasible for retention in the forest management program (Kleymeyer, 1994). For that reason planning and governance must follow a decision-making process that focuses on education and learning, adaptability and customizing the pluralism in tenure and management (Armitage, 2003). Instead of creating forest management, agricultural practices and tenure institutions from scratch, priority should be given to integrating those beneficial indigenous practices into revamped institutions and phasing out those practices detrimental to the sustainable use and conservation of forests.

**2) Gaining rights, a voice and livelihoods**

Current criticism of forest management strategies that exclude communities has focused on the loss of community livelihoods from the expropriation of traditionally accessed forest resources (Alcorn, 2005; Armitage, 2003; Chambers & Conway, 1992; Murphree, 2003). Activities such as fuelwood gathering, hunting, grazing, small-scale logging and others have been lost to communities following state-imposed forest access restrictions. Moreover, while the loss of forest access and livelihoods does have an incredibly negative impact on the well-being of communities, the replacement of those livelihoods or the creation of alternative livelihoods is not a panacea for community development. Although communities lament the loss of those activities that they had traditionally relied upon to supplement diets and incomes, the loss of their rights to the forests is an even greater obstacle to their development and participation in forest management projects. Rights to use and manage the forests are often much more valuable to the communities; more empowering and enticing as an incentive to participate in forest management schemes than livelihood replacement (Alcorn, 2005). This is not to underscore the importance of offering sustainable livelihoods, but rather to shift the emphasis from livelihoods onto rights as the precursor for successful CF.

In this respect, we see the use of forest tenure as a catalyst for empowering the communities and encouraging ownership of the community forest project. Communities that are given the rights to forests, whether they be purely extractive, use rights or management rights, will demonstrate greater initiative in managing their forests sustainably. Even more empowering and beneficial to the adoption of sustainable forest management is giving the communities a voice in the decision-making process of the management. By giving communities decision-making powers on how and when to harvest, who to exclude and how to protect their resources, the transference of long-term planning is instilled. This seems to be only common sense as the communities are the ones with whom the capacity to monitor and protect the forests lays. When viewed in terms of vulnerability of forest systems to open access

exploitation it is evident that forest communities should be given clear and defined tenure, more so even than that of farmlands and urban areas. Tenure must be placed with those stakeholders that are present, as ownership by absentee stakeholders leads to devaluation of forest products and short-term management.

In an interesting example of the importance of tenure, Bruce (1993) describes how smallholder farmers only expressed interest in private land titles in order to protect themselves from the threat of state expropriation of their land. Insecure tenure and the threat of state expropriation create an atmosphere of mistrust and discourage long-term investment in land by impoverished farmers. Secure tenure, then, nullifies this uncertainty and allows communities to focus their efforts on sustainable plans and strategies. With this condition of secure tenure guaranteed, livelihoods can then be addressed to inter-reinforce tenure issues. Chambers and Conway (1992) in their report, *Sustainable Rural Livelihoods*, address the question of what types of livelihoods must be encouraged. In their definition of an environmentally and socially sustainable livelihood they specify that which "maintains or enhances the local and global assets on which livelihoods depend and has net beneficial effects on other livelihoods … [and] which can cope with and recover from stress and shocks, and provide for future generations" (Chambers & Conway, 1992, p. 1). Integrating local skills and knowledge into sustainable livelihood formation is a crucial key to adoption.

**3) Whose empowerment? Marginalized community members: women and the poor**

Attempts to devolve authority and decision-making processes to the community level are rarely implemented with ill intentions. Most forestry decentralization projects seek to empower the communities through a distribution of rights and authority, use and management. Yet the question that all development and conservation experts must ask themselves when attempting to design these projects is "to whom will the power devolve to?" Who will become empowered by this decentralization and devolution? It has been shown that communities are, for the most part, composed of disparate interests, needs and norms (Agrawal & Gibson, 2001). So then, priority must be given to identify those disparate actors and evaluate where the power will be distributed within the community and region.

Decentralizing power from the government level to the community level is inadequate in and of itself when communities inherently have their own inequity in power and interests, representation and voice. By decentralizing power and decision-making to the community level and into the hands of local elites the problems or corruption and exploitation can be sometimes be exacerbated. The same holds true with devolving regulation power to local governments whose distance from the central government may encourage power consolidation into the hands of a few. Where many forest management planners go wrong is in their assumption that decentralization and bequeathing of management rights to communities will result in sustainable management and community development.

> Contrary to the common view, local participation was often inequitable because of compulsory labour, contributions in kind exacted by force, regressive levels of contributions, and the capture of benefits by local leaders and elites.
>
> -Robert Chambers in *Ideas for Development* (2005, p. 86)

> Another common weakness occurs when local institutions are not able to cope with the complexities arising from conflicting claims on the resource from within increasingly

> fractured user communities, and from competing demands on and interests in the resource from external stakeholders. Again, this is likely to result in control being captured by minority interests.
>
> -J.E.M. Arnold in *25 Years of Community Forestry* (2001, p. 105)

Despite similarity in many cultural norms, The Gambia is a country made up of more than five distinct ethnic groups (CIA, 2007). The composition of many villages is thus a mixture of ethnic groups and livelihoods. Pastoralists live with agriculturalists and Wolof with Mandinka and while it is true that communities are generally made up of different backgrounds and identities whom share very little in the way of shared norms and values (Young, 1999), finding common ground is not impossible. Instead of treating communities as groups unified in goals and needs it must be recognized that varied stakeholders, social classes, economic interests and needs exist within even a small village (Agrawal & Gibson, 1999). The mythic community is a generalization that has done more harm to forest management projects than good as it was predicated on the notion that communities would work towards a common goal and agree on the management of their forest resources. Without taking into account the heterogeneity of the community, development projects run the risk of inappropriate forest tenure systems and suboptimal management.

The losers in an ill-planned decentralization project are predominantly women and the poorest of the community (Bruce, 1989). These marginalized groups often times find their situations growing increasingly more desperate as their lands and their rights are curtailed further for the benefit of the collective community. These same groups are often with little or no voice in the decision-making process, many times because women are occupied with domestic activities and the poor struggle in the fields while the elites have more free time to participate in meetings and engage in management decisions. In these situations the marginalized are often weakened further by flat forest taxes that disproportionately affects the poorest in the communities (Chambers, 2005). The Gambian case study examples of wetland area conversions from female use and ownership to male ownership underscores the dangers of unintended consequences and exacerbation of social inequity from seemingly well-intentioned development projects (Carney, 1993; Schroeder, 1993, 1997).

Within community based natural resource management in particular, gender is a huge consideration as females are often more intimately tied to forest resources (Bruce, 1989; Meinzen-Dick & Zwarteveen, 2001). Yet traditional and modern tenure arrangements have failed in many respects to incorporate more equitable solutions. Women have been challenging legal and customary restraints to land title by uniting in women's groups, marrying woman-to-woman and making mother-son partnerships (Gray & Kevane, 1999). Proactive movements for the securing of women's tenure rights have been demonstrated through the appealing of women's groups to PVOs for assistance in delineating land in The Gambia (Schroeder, 1997). Moreover, the introduction of modern land registration has resulted in the loss of rights from traditionally recognized, or at the very least informal, rights over land (Dickerman, 1989). Due to the overwhelming impact of women's fuelwood gathering and forest product extraction activities in which they undertake day after day, applying a more equitable distribution of tenure must then be viewed as a necessity.

Utilizing customary tenure and authoritative structures subsequently becomes problematic when viewed in the context of the complex and enduring social and political structure of the community. Ignoring the effectiveness of community hierarchical structures is done at the risk of losing legitimacy. How can we accomplish an equitable distribution of power and authority, retain effective customary

practices and avoid sacrificing the empowerment of qualified, yet perhaps elitist, individuals? Chambers (2005, p. 94) describes this dilemma succinctly by stating that "conflict between the aims of good leadership and management on the one hand, and of distribution and equity on the other, is, however, likely to be a persistent feature which will remain difficult to overcome."

Again, this issue is not a black or white one. Empowerment and participation will need to be accomplished through a measure of compromise and sacrifice in the attainment of environmental, social and economic sustainability objectives. Change in well-established institutions and regimes will be met with opposition and reluctance by elites who refuse to relinquish authority. Notwithstanding that impediment, change can still be instituted by refusing to engage in restructuring which exacerbates marginalization, but rather instills a gradual shift to equity. With rights comes a voice and with voice comes the power to effect change on an ever-expanding scale.

**4) Local institution building for culpability, accountability, transparency not just government decentralization**

Institution building for forest management programs is many times a top-down approach of creating novel institutions to deal with the management, maintenance and enforcement of forest resource consumption and access. Community forestry projects are designed to incorporate the local communities in an institutional framework that encourages participation, ownership and decentralization yet many times conservation organizations use the definitions of involvement, community, partnership and decentralization too liberally (Alcorn, 2005). These objectives, while attractive in theory, are many times elusive or misrepresented in practice.

Forest management can hardly be called participatory when communities are relegated to an advisory role in the administration of forest resources. What is labeled partnerships can be found to be nothing more than paternalistic relationships that serve the interests of the international conservation PVOs or the state government more than the communities with whom the projects were meant to empower. The blame for failed community based resource management projects seems to be less with the community capabilities than with the lack of robust, adaptive and strong local institutions.

Similar to the correlation of tenure and investment in land for sustainable resource use, local institution building can promote the ability of the communities to manage forests and encourage long-term investments. Without strong institutions and the ability to make clear decisions, CF programs will not achieve the long-term sustainability that is desired. Having strength in the institutions will not always produce the desired results however. Those institutions must be created or revamped to promote sustainability but not without taking measure of equity issues and transparency.

There are several components to the creation or revamping of effective institutions in CF. There should be a concerted effort by all parties to incorporate beneficial customary institutions, norms and practices whenever possible. Customary conflict resolution mechanisms can be restructured to fit within the CF regimes without requiring the community to adopt foreign or culturally inappropriate systems. Secondly, communal forest management regimes must be structured to address many commonly identified themes as outlined by Ostrom's (2001) *Design Principles for Long-enduring Common Pool Resources* (see Table 2). Some of the more important themes to focus on from Ostrom's principles are the clearly defined boundaries, monitoring, graduated sanctions and conflict-resolution mechanisms

Some of the more important principles detailed by Ostrom are the need for clearly defined boundaries which is a necessary precursor to forest management in order to lessen territorial disputes. Within the case study example where multiple forests are adjacent to one another and to other communities, the CFMA process addressed this principle by setting clearly defined forest boundaries and requiring the affirmation of those boundaries by all affected communities.

Even with clearly defined boundaries, however there is still a need for conflict resolution mechanisms to address boundary and other disputes. Again, the Gambian example outlined several options ranging from cultural interventions with elders or *imams* to state administrated judiciary solutions utilizing the district *seyfo*, demonstrating the adaptive customary practices that provide robustness for the institutions. The ability of the communities to deal with their own problems as much as possible is a key factor as well. Local volunteers in Batelling filled a vital role in exclusion of outsiders from their communal forest resources and in fire protection services. Involving the community members in the administration and enforcement of the 'rules of the forest' helps to bolster confidence and ownership in the management program, clarify restrictions and expectations and increase participation.

Institutions will require adaptability in all aspects of their operation. Sanctions, fines and fees must be catered to the unique setting of each village's composition. Without this adaptive approach, regulations will be viewed as too lax or too severe and will encourage exploitation on both sides of the spectrum. Gambian use of customary punishments, which fit the nature of the infraction as well as the situation of the guilty parties, can circumvent the dangers of rigid systems. Current policy in Gambian forest law precludes this adaptability, but fortunately much of the regulation is done without state knowledge and thus community systems and appropriate responses prevail. This discrepancy in *de facto* regulation should be recognized more thoroughly to encourage this adaptability while also offering ways to identify and reinforce those weaker institutions that may be incapable of dealing with egregious infractions.

**5) PVO involvement and the role of local government**

Another way institutions can be diversified and created in a more enduring and robust manner is through collaboration with PVOs. Many PVOs have the specialized knowledge of institution building and should be taken advantage of during this formation process (Bojang, 1999). Techniques proven to work in similar situations can be brought to bear from the store of international PVO experiences. Yet PVOs must only be allowed to take the initiative when communities fail to develop strong organizational bodies (Cornista & Escueta, 2005). Institutional selection should be primarily focused on those bodies that originate and draw their strength from the community itself.

PVOs come into many development programs with their own agendas and seek to project their system of values and beliefs onto the communities (Alcorn, 2005). The recognition of their driving interests and the discursive invention of "biodiversity" by PVOs will help them adopt a more empathic approach to community development which strives to reconcile biodiversity conservation with political stakes (Escobar, 1998). The role of the PVO, as well as that of the government, should be seen as one of advisory and support rather than authoritative rule and oversight. Both PVOs and the local government have important roles to play though and the value of those roles should not be discounted. Serving as second party actors, the PVOs have the capacity, often absent in communities, to clearly define and bring legitimacy to tenure rights and to the negotiation table. The ability to clarify community claims, bring transparency and shed light on the government's success or failure forest management decentralization is one that powerful and less politically-influenced PVOs can bring to CF (White & Martin, 2002a).

Technical assistance is another area where PVOs can contribute to the capacity building of community forest management institutions. Proper forestry practices, reforestation and forest product extraction and processing are just some of the services that PVOs can offer communities. In some circumstances, PVOs may also feel the need to provide the start-up capital for management group formation, nursery establishment for reforestation requirements as required by the CFMA, or other financial needs. PVOs' status as third parties also makes them the ideal party to assist governments in monitoring of the CF programs to identify CF trends countrywide and evaluate the programmatic restructuring needs.

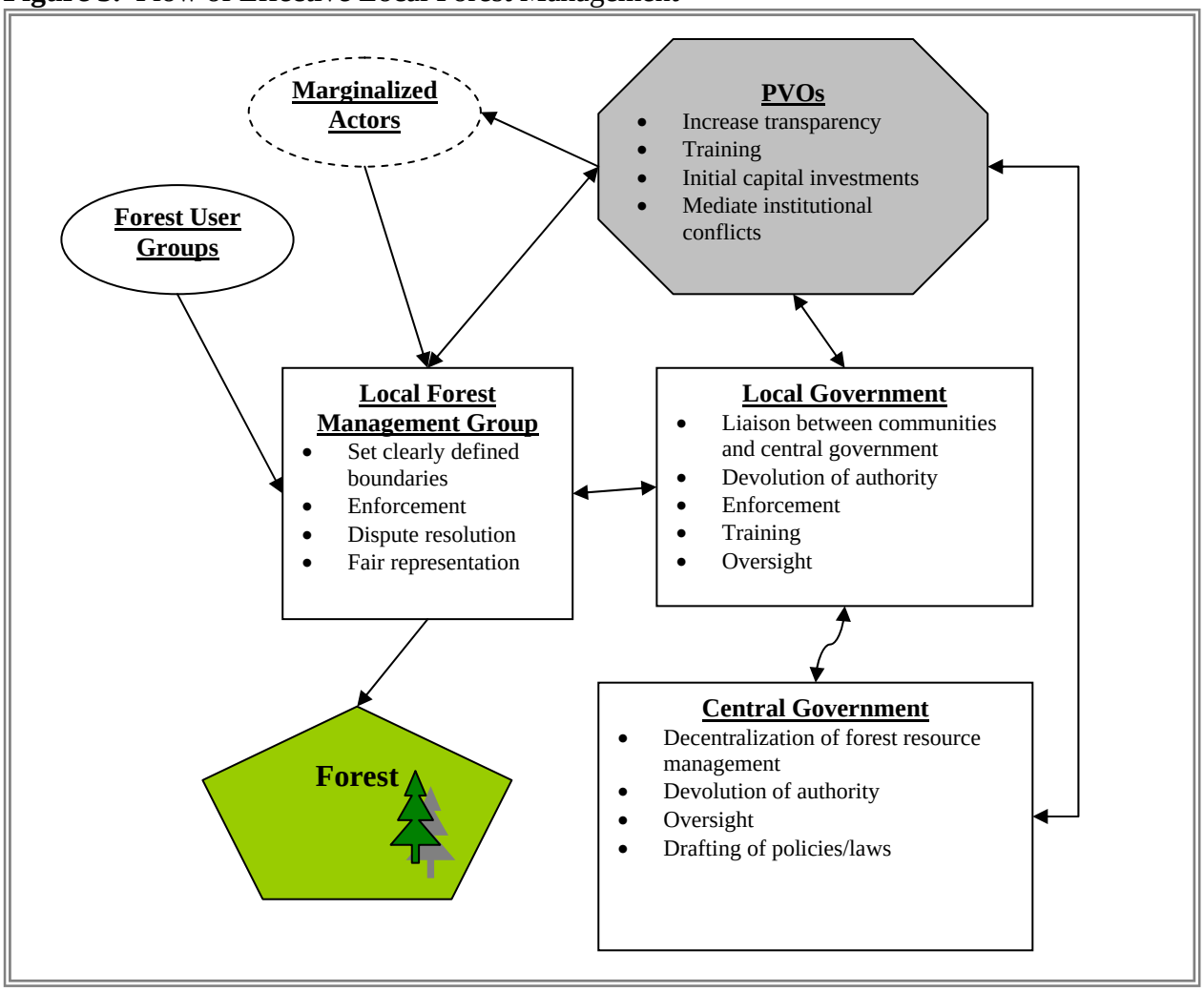
The involvement of GTZ in the formation of the Gambian forestry program especially with respect to the creation of the CF system is an excellent example of the great impact that external organizations can have on institution building. With the development of the GFMC, the GGFP was able to create structured institutions of forest management involving community representatives, local government officials all the way up to national policy makers. The legacy of involvement in this process was the GFMC and the CFMA system, and while it was important for GTZ to instill accountability and compliance at the government level during the formative years of CF, the institutions formed are now able to continue the process in perpetuity. PVO involvement can take many forms in CF programs from BINGO cooperation at the state level to small PVO local assistance with community groups at the grassroots level. Although the Gambian case study exemplified success with external organization cooperation predominantly at the state level, success is possible with involvement in any number of ways as long as strong enduring institutions are developed.

The trick is to empower communities, decentralize administration and devolve power without creating an ambience of conflict or opposition between the government and the communities. Local governments have the unique advantage of being both set in the local environs and yet representing the central government and its interests. Particularly in Africa, local governments are often responsible only to the central government and are understaffed, underbudgeted, working with little knowledge of local conditions and thus very removed from the needs of the communities. In order for the local governments to be effective they must be restructured to be accountable to the communities and the government instead of relying solely on forest committees, village chiefs and PVOs to represent the communities (Ribot, 1998). The shift in attitude from the community viewing the state as an enemy and repressor can be changed through the formation of a more receptive and involved local government.

Within all of these institutional changes or formations, there is danger of corruption, elitism and breakdown. To address this, a system of checks and balances must be created to ensure that the community bodies, the PVOs, private industry and the different state actors have the authority to monitor and maintain balance in their relations. Existing power relations between communities and the government have the opportunity to be equilibrated through the presence of PVOs, which act to bring transparency and accountability to all parties. The power of the PVO should also be held in check by the government and community to ensure that the agenda of the PVOs does not preempt the needs and interests of the country and its people. This system of checks and balances is outlined in Figure 3, describing the flow of authority, power and support among the various actors. In this model, the central government and that of the local government are similar in the mandate to decentralize power to the community level with increased transparency in that devolution of power through PVO involvement and monitoring. The PVO role in this model would be one of capacity building and start-up assistance with diminishing involvement as institutions grew in robustness. PVOs will ultimately fade from the system and existing institutions will provide the functions that PVO involvement

provided in the early stages. The local forest management group will then be left with the necessary structures and authority to enforce their management and resolve internal issues with full representation of all community members including marginalized groups.

**Figure 3.** Flow of Effective Local Forest Management




**Summary of recommendations:**

The first area is the restructuring of forest management institutions and tenure arrangements to incorporate customary and traditional practices. This will help to create institutional flexibility, resiliency and robustness in the dynamic tropical forest environments. The incorporation of community conflict resolution mechanisms in Batelling through their fire management strategy is one example of successful integration and strengthening. I then focus on improving rights and tenure security as a precursor to successful forest management and the development of sustainable livelihoods. The difference in tenure rights between Batelling and Dumbutu and the resultant disparity in forest stewardship underscore the importance of bequeathing of rights to communities. With the decentralization of forest management, I warn against the potential for inequity in power distribution and focus on addressing empowerment of marginalized groups to ameliorate inequality. Although the CFMA structure created a framework for involving youth and women and shows progress in the direction of equity, there remains a need for continued work towards the integration of marginalized groups into the decision-making process of Gambian community forests. The creation of strong

institutional structure is also critical for the communities' ability to adapt to changing pressures and respond to challenges as demonstrated by the CFMA's adherence to many of Ostrom's design principles for robust CPR institutions (Ostrom, 1990). In The Gambia, GTZ successfully built the capacity of Batelling, adhering to my recommendation for the role of PVOs and the local government to be supportive and empowering rather than restrictive or hindering. Finally, I created a figure describing the roles of the different actors and showing the power dynamics among them.

## Conclusion

Tropical forest management is one of the most difficult tasks facing developing nations' governments and conservation organizations. Forests are seen as a valuable resource for providing income and nutrition for the rural poor, yet the exploitation of the forests will ultimately lead to the worsening of their poverty. Increasing erosion, floods, droughts, desertification and falling soil fertility levels are just some of the problems attributed to deforestation. Unfortunately, the people that end up suffering from these worsening conditions are the rural poor and those living in the forest communities. They are the ones whose livelihoods are lost from logging or exclusion, and the ones who most intimately feel the negative environmental effects.

Most conservation organizations and developing nations' governments are seeing the need for community involvement. Failed exclusionary resource management tactics such as those described by Western and Wright (1994) and seemingly successful CF systems in The Gambia reinforce the need for local participation in the management of the forest resources. Accepting a participatory approach as an integral component, I then focused on analyzing exactly which elements of CF are failing and which need strengthening. Those elements that I felt warranted the most consideration were institutional-strengthening, incorporation of customary practices, appropriate involvement of outside actors and integration of marginalized community members. Within each of these areas, I looked at improving tenure security as a way to increase participation, solidify adherence to regimes and assure sustainability.

**Limitations encountered:**
Given that I could not visit each of the community forest sites and personally evaluate the subjective levels of ownership and participation of the CF programs, assumptions regarding the overall strength of the Gambian forestry program were made. However, it is recognized that to most effectively evaluate and restructure CF programs in different countries, it is preferable to perform on-site assessments of the perceived benefits and drawbacks of the programs. Throughout this paper I have stressed the importance of an adaptive approach that takes into account all of the various environmental, social, political and economic conditions surrounding the forests and communities in question. This adaptive approach calls for a more comprehensive analysis of the specific situations encountered in each community and therefore should only be used as a platform for identifying ways to increase participation and achieve the goals of conservation and sustainable forest management. An appropriate analysis requires constant monitoring and evaluation of these programs.

To adequately monitor and evaluate the success of CF programs, I also suggest performing a more detailed economic and biological analysis of changes from community forestry. As financial benefits and market valuation are always important when discussing natural resource management, especially in developing nations, I recommend a more comprehensive assessment of both the perceived and actual benefits and losses resulting from a shift to a CF system. I also encountered limitations in acquiring data on forest cover and biological inventories of the forest including flora and fauna counts to assess the change resulting from CF as compared to baseline data. Using existing GIS data in combination with groundtruthed data would provide a valuable means for conducting analysis of forest cover to supplement CF program evaluation. Measuring the criteria for success of ownership and participation as well as measuring the goals of conservation and sustainable forest management were thus hampered by the lack of these data and research.

**Global application:**
While in some ways, the dwindling tropical forest reserves require an immediate solution and thus a blueprint for forest management, the belief in the existence of a universal system is a recipe for disaster. For example, the same fire prevention strategies and cultural taboos from the Gambian case study might not be feasible in a different country. By focusing on the broad topics of forest management institutions and working with existing regimes and practices, there is a greater chance that the tailoring of appropriate CF strategies will result in increased community ownership. The trick is to identify those endemic and indigenous practices and structures that achieve the goals of conservation and sustainable forest management and to work those into the CF framework. Communal management of natural resources requires a complex approach and pluralism in analysis to be able to observe the unexpected and to create theory rather than have theory limit what is identified and encountered (Chambers, 1983). Flexibility and adaptability are, and will continue to be, the key to robust institutions.

Globalization and the fluctuating pressures resulting from global trade and an international market demand caution in selection of those rules and governing structures that will be incorporated into CF programs. Clearly, it would be foolhardy to believe that traditional institutions would have the necessary checks and balances ingrained in their structures when they are faced with the enormous pressures of exploitive mining, timber and medicinal mega-industries. In order for these significant pressures to be addressed, it is up to the state and PVO actors to reinforce the authority and resilience of the community forest institutions and guarantee that the communities will not be tempted by short-term profits that jeopardize the welfare of the forest resources. Again, this approach of partial, yet significant, statist regulation as promoted by Ribot (1998) is meant to augment and reinforce the authority and decision-making abilities of the community institutions without usurping or undermining the communities' capacity for management of the forests.

With many of the common-pool resource institutions, achieving a measure of robustness and resiliency to changing conditions and pressures is a crucial consideration (see among others Burger et al., 2001; Gibson et al., 2000; Ostrom, 1990, 2001). The institutional capacity of committees and decision-makers within communities as well as their ability to effectively cooperate with governments and PVOs will help ensure that forests are protected from forest predation through globalization. Identifying the key actors in forest management is crucial for the creation of the community forest governing structures (Agrawal & Gibson, 2001). By including those stakeholders with vested interests in the forest, the actions of the governing structures will be based on more extensive information enabling them to benefit, rather than be exploited, by outside forces. In many cases, this will entail inclusion of all actors from marginalized women and poor to regional logging companies who may have concessions or rights to parts of the forest. With this inclusion, however, there is a risk of domination by more powerful local and outside actors and thus both the PVOs and the state will need to maintain a presence, at least in the early stages, to promote an egalitarian environment.

**Moving forward:**
The Gambian case study was a good example of a successful CF program for several reasons. Batelling demonstrated a significant adoption and ownership of the CF program due in large part to the increased participation that the CFMA structure provided, the integration of customary and traditional practices in institutional building and the improved tenure security that they received from the community forest designation. The comparison to Dumbutu further provides evidence that exclusion of communities from management decisions and ownership rights leads to a more vulnerable forest. The vulnerability of these state-controlled forests to fires, illegal timber harvesting and exploitation

reinforces the need for more inclusive forest management strategies. Properly created community forests also offer additional benefits by addressing inequality issues, empowering communities and it has the potential for creating livelihood opportunities from forest resource management.

Community forestry has an optimistic future for tropical forest management in developing countries. Among the forest management strategies, it has the greatest potential for success owing to its more participatory and inclusive nature. The benefits and rights that governments are now ceding to communities promise to provide the sufficient incentive for sustainable management and conservation. Another advantage to this system is the novelty of the institutions. Whereas communities may have been managing their forest resources in some limited capacity, the institutions that are being created will be new to most. To capitalize on this, the development of these institutions must be initiated from the start in a more equitable manner to benefit all actors and distribute benefits equally. In order for equity to be present, forest management institutions must include marginalized groups in a manner that does not undermine the authority and legitimacy of the organizations. Drastic change in the elitist and sexist components of many developing nation societies will not happen overnight. As a Mandinka proverb states "*Domang, domang le ka noo wulu*" or "Little by little, capacity is born".

## References

**Agrawal, A. (2000). Small is Beautiful, but Is Larger Better? Forest-Management Institutions in the Kumaon Himalaya, India. In C. C. Gibson, M. A. McKean & E. Ostrom (Eds.),** ***People and Forests: Communities, Institutions and Governance*** **(pp. 57-85). Cambridge: The MIT Press.**

**Agrawal, A. (2005). Environmentality: Community, Intimate Government, and the Making of Environmental Subjects in Kumaon, India.** ***Current Anthropology, 46*****(2), 161-190.**

**Agrawal, A., & Gibson, C. C. (1999). Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation.** ***World Development, 27*****(4), 629-649.**

**Agrawal, A., & Gibson, C. C. (2001).** ***Communities and the Environment: Ethnicity, Gender, and the State in Community-Based Conservation*****. New Brunswick: Rutgers University Press.**

**Alcorn, J. B. (2005). Dances around the Fire: Conservation Organizations and Community-Based Natural Resource Management. In A. L. T. a. C. Z. J. Peter Brosius (Ed.),** ***Communities and Conservation: Histories and Politics of Community-Based Natural Resource Management*** **(pp. 37-68): Alta Mira Press.**

**Armitage, D. R. (2003). Traditional Agroecological Knowledge, Adaptive Management and the Socio-Politics of Conservation in Central Sulawesi, Indonesia.** ***Environmental Conservation, 30*****(1), 79-90.**

**Arnold, J. E. M. (1998).** ***Managing Forests as Common Property*****. Rome: FAO.**

**Arnold, J. E. M. (2001).** ***Forests and People: 25 years of Community Forestry*****. Rome, Italy: FAO.**

**Banana, A. Y., & Gombya-Ssembajjwe, W. (2000). Successful Forest Management: The importance of security of tenure and rule enforcement in Ugandan forests. In C. C. Gibson, M. A. McKean & E. Ostrom (Eds.),** ***People and Forests: Communities, Institutions and Governance*** **(pp. 87-98). Cambridge: The MIT Press.**

**Barbier, E. B., Sanchez, P. A., Thomas, R., & Wagner, A. (1997). The Economic Determinants of Land Degradation in Developing Countries [and Discussion].** ***Philosophical Transactions: Biological Sciences, 352*****(1356), 891-899.**

**Bassett, T. J. (1993). Introduction: The Land Question and Agricultural Transformation in Sub-Saharan Africa. In T. J. Bassett & D. E. Crummey (Eds.),** ***Land in African Agrarian Systems*** **(pp. 3-31). Madison: The University of Wisconsin Press.**

**Bassett, T. J., & Crummey, D. E. (Eds.). (1993).** ***Land in African Agrarian Systems*****. Madison: The University of Wisconsin Press.**

**Berkes, F. (2004). Rethinking Community-Based Conservation.** ***Conservation Biology, 18*****(3), 621-630.**

**Berkes, F. (2006).** ***The Problematique of Community-Based Conservation in a Multi-Level World.*** **Paper presented at the International Association for the Study of Common Property Global Conference.**

**Bewket, W. (2005). Biofuel Consumption, Household Level Tree Planting and its Implications for Environmental Management in the Northwestern Highlands of Ethiopia.** ***EASSRRR, XXI*****(1), 19-38.**

**Bohn, H., & Deacon, R. T. (2000). Ownership Risk, Investment, and the Use of Natural Resources.** ***The American Economic Review, 90*****(3), 526-549.**

**Bojang, F. (1999, April 26-30).** ***Overview of the International Workshop on Community Forestry in Africa.*** **Paper presented at the Participatory Forest Management: A Strategy for Sustainable Forest Management in Africa, Banjul, The Gambia.**

**Bojang, F., & Reed, D. (1998).** ***Community Forest Ownership: Key to Sustainable Forest Resource Management. The Gambian Experience*****. Paper presented at the International Workshop on: Community Based Natural Resource Management (CBNRM).**

**Brandon, K. E., & Wells, M. (1992). Planning for People and Parks: Design Dilemmas.** ***World Development, 20*****(4), 557-570.**

**Brechin, S. R., Wilshusen, P. R., Fortwangler, C. L., & West, P. C. (2002). Beyond the Square Wheel: Toward a More Comprehensive Understanding of Biodiversity Conservation as Social and Political Process.** ***Society and Natural Resources, 15*****(1), 41-64.**

**Brockington, D. (2002).** ***Fortress Conservation: The preservation of the Mkomazi Game Reserve, Tanzania*****. Bloomington: Indiana University Press.**

**Brockington, D. (2004). Community Conservation, Inequality and Injustice: Myths of Power in Protected Area Management.** ***Conservation & Society, 2*****(2), 411-432.**

**Brockington, D., Igoe, J., & Schmidt-Soltau, K. (2006). Conservation, Human Rights, and Poverty Reduction.** ***Conservation Biology, 20*****(1), 250-252.**

**Bruce, J. W. (1989).** ***Community Forestry: rapid appraisal of tree and land tenure. Community Forestry Note 5*****. Rome: FAO.**

**Bruce, J. W. (1993). Do Indigenous Tenure Systems Constrain Agricultural Development? In T. J. Bassett & D. E. Crummey (Eds.),** ***Land in African Agrarian Systems*** **(pp. 35-56). Madison: University of Wisconsin Press.**

**Bruce, J. W. (1998a).** ***Country Profiles of Land Tenure: Africa, 1996*****. Wisconsin: Land Tenure Center.**

**Bruce, J. W. (1998b). Review of Tenure Terminology.** ***Tenure Brief*****(1), 1-8.**

**Bruner, A. G., Gullison, R. E., Rice, R. E., & da Fonseca, G. A. B. (2001). Effectiveness of Parks in Protecting Tropical Biodiversity.** ***Science, 291*****(5501), 125-128.**

**Burger, J., Ostrom, E., Norgaard, R. B., Policansky, D., & Goldstein, B. D. (Eds.). (2001).** ***Protecting the Commons: A Framework for Resource Management in the Americas*****. Washington D.C.: Island Press.**

**Carney, J. (1993). Converting the Wetlands, Engendering the Environment: The Intersection of Gender with Agrarian Change in the Gambia.** ***Economic Geography, 69*****(4), 329-348.**

**Chambers, R. (1983).** ***Rural Development: Putting the Last First*****. New York: Pearson Prentice Hall.**

**Chambers, R. (2005).** ***Ideas for Development*****. London: Earthscan.**

**Chambers, R., & Conway, G. R. (1992).** ***Sustainable Rural Livelihoods: Practical Concepts for the 21st Century*****: IDS Discussion Paper.**

**Chapin, M. (2004, November/December 2004). A Challenge to Conservationists.** ***World Watch Magazine*****, 17-31.**

**Church, P. E., & Laarman, J. (1996a).** ***Forestry and the Environment: Assessment of USAID Support for Forest Stewardship.*** **Washington, DC: Center for Development Information and Evaluation, US Agency for International Development.**

**Church, P. E., & Laarman, J. (1996b).** ***Forestry and the Environment: An Assessment of USAID Support for Forest Stewardship*****. Washington DC: Center for Development Information and Evaluation U.S. Agency for International Development.**

**CIA. (2007, March 15, 2007). The World Factbook. Retrieved March 22, 2007, from https://www.cia.gov/cisa/publications/factbook/index.html**

**Cornista, L. B., & Escueta, E. F. (2005). Communal Forest Leases as a Tenurial Option in the Philippine Uplands. In M. Poffenberger (Ed.),** ***Keepers of the Forest*****. West Hartford: Kumarian Press.**

**Dickerman, C. W. (1989).** ***Security of Tenure and Land Registration in Africa: Literature Review and Synthesis*****. Madison: Land Tenure Center.**

**EarthTrends, W. (2005). EarthTrends Data Tables: Forests, Grasslands, and Drylands: World Resources Institute.**

**Ellsworth, L. (2002).** ***A Place in the World: Tenure Security and Community Livelihoods, A Literature Review*****. Washington, D.C.: Forest Trends.**

**Escobar, A. (1998). Whose Knowledge, Whose Nature? Biodiversity, Conservation, and the Political Ecology of Social Movements.** ***Journal of Political Ecology, 5*****, 53-82.**

**Fairhead, J., & Leach, M. (1996).** ***Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic*****. Cambridge: Cambridge University Press.**

**Fairhead, J., & Leach, M. (2001).** ***Practising Biodiversity in Guinea: Nature, Nation and an International Convention*****. Paper presented at the Changing Perspectives on Forests: Ecology, People and Science/Policy Processes in West Africa and the Caribbean.**

**FAO. (1993).** ***Common forest resource management: annotated bibliography of Asia, Africa and Latin America. Community Forest Note 11*****. Rome: FAO.**

**FAO. (2006).** ***Global Forest Resources Assessment 2005. Forestry Note 147*****. Rome: Food and Agriculture Organization of the United Nations.**

**FAO. (2007a). Community Forestry. Retrieved March 6, 2007, from http://www.fao.org/docrep/u5610e/u5610e04.htm#TopOfPage**

**FAO. (2007b). Forest Tenure Assessment. Retrieved March 6, 2007, from http://www.fao.org/forestry/site/33848/en**

**Feeny, D., Berkes, F., McCay, B. J., & Acheson, J. M. (1990). The Tragedy of the Commons: Twenty-Two Years Later.** ***Human Ecology, 18*****(1), 1-19.**

**Flavin, C. (2005, January/February 2005). A Challenge to Conservationists: Phase II.** ***World Watch Magazine,*** **1-20.**

**Freudenberger, M. S. (2000).** ***Tenure and Natural Resources in The Gambia: Summary of Research Findings and Policy Options*****. Madison: Land Tenure Center.**

**Gauld, R. (2000). Maintaining Centralized Control in Community-based Forestry: Policy Construction in the Philippines.** ***Development & Change, 31*****(1), 229-254.**

**Gibson, C. C. (2001). Forest Resources: Institutions for Local Governance in Guatemala. In J. Burger, E. Ostrom, R. B. Norgaard, D. Policansky & B. D. Goldstein (Eds.),** ***Protecting the Commons*** **(pp. 71-90). Washington, D.C.: Island Press.**

**Gibson, C. C., & Becker, C. D. (2000). A Lack of Institutional Demand: Why a Strong Local Community in Western Ecuador Fails to Protect Its Forest. In C. C. Gibson, M. A. McKean & E. Ostrom (Eds.),** ***People and Forests*** **(pp. 135-161). Cambridge: MIT Press.**

**Gibson, C. C., McKean, M. A., & Ostrom, E. (Eds.). (2000).** ***People and Forests: Communities, Institutions, and Governance*****. Cambridge: The MIT Press.**

**Gray, L., & Kevane, M. (1999). Diminished Access, Diverted Exclusion: Women and Land Tenure in Sub-Saharan Africa.** ***African Studies Review, 42*****(2), 15-39.**

**GTZ. (2002).** ***People and Forests: Opportunities for Improving Livelihoods, Alleviating Poverty, and Safeguarding the Environment through Sustainable Forest Management*****. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.**

**Hafner, J. A. (2005). Forces and Policy Issues Affecting Forest Use in Northeast Thailand 1900-1985 In M. Poffenberger (Ed.),** ***Keepers of the Forest.*** **West Hartford: Kumarian Press.**

**Hardin, G. (1968). The Tragedy of the Commons.** ***Science, 162*****(1), 1243-1248.**

**Huete, A. R. (1988). A Soil-Adjusted Vegetation Index (SAVI).** ***Remote Sensing of Environment, 25*****, 295-309.**

**Igoe, J. (2004).** ***Conservation and Globalization: A study of national parks and indigenous communities from East Africa to South Dakota.*** **Belmont, CA: Woodsworth/Thompson Learning.**

**Kirstein, F. L. (2000).** ***Ecological and Socio-Economic Assessment in The Gambia: Towards the Active Management of Tanji-Karanti Bird Reserve.*** **Dalhousie University, Halifax, Nova Scotia.**

**Kleymeyer, C. D. (1994). Cultural Traditions and Community-based Conservation. In D. Western & R. M. Wright (Eds.),** ***Natural Connections*** **(pp. 323-346). Washington DC: Island Press.**

**Korhonen, K. (2005). Local People and Benefits in Integrated Biodiversity Conservation: Case Study from Ranomafan National Park, Madagascar. In M. A. F. Ros-Tonen & T. Dietz (Eds.),** ***African Forests Between Nature and Livelihood Resource*** **(pp. 129-157). Lewiston, NY: The Edwin Mellen Press.**

**Lepp, A., & Holland, S. (2006). A Comparison of Attitudes Toward State-Led Conservation and Community-Based Conservation in the Village of Bigodi, Uganda.** ***Society & Natural Resources, 19,*** **609-623.**

**Li, T. (2001). Boundary Work: Community, Market, and State Reconsidered. In A. Agrawal & C. C. Gibson (Eds.),** ***Communities and the Environment: Ethnicity, Gender, and the State in Community-Based Conservation*** **(pp. 157-179). New Brunswick: Rutgers University Press.**

**Meinzen-Dick, R., & Zwarteveen, M. (2001). Gender Dimensions of Community Resource Management: The Case of Water Users' Associations in South Asia. In A. Agrawal & C. C. Gibson (Eds.),** ***Communities and the Environment*** **(pp. 63-88). New Brunswick: Rutgers University Press.**

**Mendelsohn, R. (1994). Property Rights and Tropical Deforestation.** ***Oxford Economic Papers, 46,*** **750-756.**

**Mendelsohn, R., & Balick, M. (1995). Private Property and Rainforest Conservation.** ***Conservation Biology, 9*****(5), 1322-1323.**

**Molnar, A., Liddle, M., Bracer, C., Khare, A., White, A., & Bull, J. (2006).** ***Community-based Forest Enterprises in Tropical Forest Countries: Status and Potential, Report to the ITTO.*** **Washington, DC: Forest Trends.**

**Molnar, A., Scherr, S. J., & Khare, A. (2004).** ***Who Conserves the World's Forests? Community-driven strategies to protect forests and respect rights*****. Washington, D.C.: Forest Trends.**

**Murphree, M. W. (2003). Who and What are Parks for in Transitional Societies? In B. Child (Ed.),** ***Parks in Transition: Biodiversity, Rural Development, and the Bottom Line*** **(pp. 217-230). London: Earthscan.**

**Murphree, M. W. (2005). Congruent Objectives, Competing Interests, and strategic Compromise: Concept and Process in the Evolution of Zimbabwe's CAMPFIRE, 1984-1996. In J. P. Brosius, A. L. Tsing & C. Zerner (Eds.),** ***Communities and Conservation: Histories and Politics of Community-Based Natural Resource Management*** **(pp. 105-147). AltaMira Press.**

**National Research Council. (1986).** ***Proceedings of the Conference on Common Property Resource Management.*** **Paper presented at the Conference on Common Property Resource Management, Washington, DC.**

**Neumann, R. P. (1998).** ***Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa*****. Berkeley: University of California Press.**

**Ostrom, E. (1990).** ***Governing the Commons: The Evolution of Institutions for Collective Action.*** **New York: Cambridge University Press.**

**Ostrom, E. (2001). Reformulating the Commons. In J. Burger, E. Ostrom, R. B. Norgaard, D. Policansky & B. D. Goldstein (Eds.),** ***Protecting the Commons*** **(pp. 17-41). Washington D.C.: Island Press.**

**Payer, C. (1979). The World Bank and the Small Farmers.** ***Journal of Peace Research, 16*****(4), 293-312.**

**Peluso, N. L. (1993a). Coercing Conservation: The Politics of State Resource Control. In R. D. Lipschutz & K. Conca (Eds.),** ***The State and Social Power in Global Environmental Politics*** **(pp. 46-70). New York: Columbia University Press.**

**Peluso, N. L. (1993b). 'Traditions' of Forest Control in Java: Implications for Social Forestry and Sustainability.** ***Global Ecology and Biogeography Letters, 3*****(4/6), 138-157.**

**Poffenberger, M. (Ed.). (1990).** ***Keepers of the Forest: Land Management Alternatives in Southeast Asia.*** **West Hartford, Conn.: Kumarian Press.**

**Ribot, J. C. (1998).** ***Decentralization & Participation in Sahelian Forestry: Legal Instruments of Central Political-Administrative Control*** **(Working Paper Series). Cambridge: Harvard Center for Population and Development Studies.**

**Ribot, J. C. (1999). A History of Fear: Imagining Deforestation in the West African Dryland Forests.** ***Global Ecology and Biogeography, 8*****(3/4), 291-300.**

**Ros-Tonen, M. A. F., Zaal, F., & Dietz, T. (2005). Reconciling Conservation Goals & Livelihood Needs: New forest management perspectives in the 21st century. In M. A. F. Ros-Tonen & T. Dietz (Eds.),** ***African Forests between Nature & Livelihood Resources*** **(pp. 3-29). Lewiston, N.Y.: The Edwin Mellen Press.**

**Sanchez, P. A., Buresh, R. J., Leakey, R. R. B., Evans, L. T., Anderson, G. D., Wood, P., et al. (1997). Trees, Soils, and Food Security [and Discussion].** ***Philosophical Transactions: Biological Sciences, 352*****(1356), 949-961.**

**Sanyang, P. K. (1999, April 26-30).** ***Village Perspectives of Community Forestry in The Gambia.*** **Paper presented at the Participatory Forest Management: A Strategy for Sustainable Forest Management in Africa, Banjul, The Gambia.**

**Schindele, W. (2001).** ***Gambian Forest Management Concept (GFMC) 2nd Version Draft.*** **Eschborn, Germany: Department of State for Fisheries, Natural Resources and the Environment/Deutsche Gesellschaft fuer Technische Zusammenarbeit GmbH/Deutsche Forstservice (DFS) GmbH.**

**Schroeder, R. A. (1993). Shady Practice: Gender and the Political Ecology of Resource Stabilization in Gambian Gardens/Orchards.** ***Economic Geography, 69*****(4), 349-365.**

**Schroeder, R. A. (1997). "Re-claiming" Land in the Gambia: Gendered Property Rights and Environmental Intervention.** ***Annals of the Association of American Geographers, 87*****(3), 487-508.**

**Schroeder, R. A. (1999). Community, Forestry and Conditionality in the Gambia.** ***Africa, 69*****(1; International module), 1-22.**

**Sillah, J. S. (1999).** ***Forest Resources and Plantations of The Gambia.*** **Banjul, The Gambia: EC-FAO.**

**Simpson, R. D. (2004).** ***Conserving Biodiversity through Markets: A better approach.*** **Bozeman: Property and Environment Research Center.**

**Sonko, K., & Beck, C. (2003). Forest User Conflict Management in The Gambia. In A. P. Castro & E. Nielsen (Eds.),** ***Natural Resource Conflict Management Case Studies: An Analysis of Power, Participation and Protected Areas.*** **Rome: Food and Agriculture Organization of the United Nations.**

**Sonko, K., Samateh, S., Camara, K., & Beck, C. (2001, July 25-28).** ***Why don't they come and discuss together? Community-initiated stakeholder co-ordination on forest fire management***

***in rural Gambia.*** **Paper presented at the Communities in Flames: Proceedings of an International Conference on Community Involvement in Fire Management, Balikpapan, Indonesia.**

**Sonko, K., Samateh, S., Camara, K., & Beck, C. (2002).** ***Why don't they come and discuss together? Community-initiated stakeholder co-ordination on forest fire management in rural Gambia*****. Paper presented at the Communities in Flames: Proceedings of an International Conference on Community Involvement in Fire Management.**

**Terborgh, J. (1999).** ***Requiem for Nature*****. Washington, DC: Island Press.**

**The Gambia, R. o. (1998a).** ***Forest Act 1998*****. Retrieved March 21, 2007. from http://www.crdfp.org/fd.htm#doc.**

**The Gambia, R. o. (1998b).** ***Forest Regulations*****. Retrieved March 21, 2007. from http://www.crdfp.org/fd.htm#doc.**

**The Gambia, R. o. (2000).** ***National Forestry Action Plan*****. Retrieved March 21, 2007. from http://www.crdfp.org/fd.htm#doc.**

**Thoma, W., & Camara, K. (2005).** ***Community Forestry Enterprises: A Case Study of The Gambia.*** **Rome: Food and Agriculture Organization of the United Nations.**

**Tucker, C. M., & Southworth, J. (2005). Processes of Forest Change at the Local and Landscape Levels in Honduras and Guatemala. In E. F. Moran & E. Ostrom (Eds.),** ***Seeing the Forest and the Trees: Human-Environment Interactions in Forest Ecosystems*** **(pp. 253-278). Cambridge: The MIT Press.**

**Unruh, J., Nagendra, H., Green, G. M., McConnell, W. J., & Vogt, N. (2005). Cross-Continental Comparisons: Africa and Asia. In E. F. Moran & E. Ostrom (Eds.),** ***Seeing the Forest and the Trees: Human-Environment Interactions in Forest Ecosystems*** **(pp. 303-324). Cambridge: The MIT Press.**

**USAID. (2002).** ***Investing in Tomorrow's Forests: Toward an Action Agenda for Revitalizing Forestry in West Africa*****. Washington, DC: U.S. Agency for International Development.**

**Wells, M. P., & McShane, T. O. (2004). Integrating Protected Area Management with Local Needs and Aspirations.** ***Ambio, 33*****(8), 513-519.**

**Western, D. (1994). fEcosystem Conservation and Rural Development: The Case of Amboseli. In D. Western, R. M. Wright & S. C. Strum (Eds.),** ***Natural Connections*** **(pp. 15-52). Washington, DC: Island Press.**

**Western, D., Wright, R. M., & Strum, S. C. (Eds.). (1994).** ***Natural Connections*****. Washington DC: Island Press.**

**White, A., & Martin, A. (2002a).** ***Strategies for Strengthening Community Property Rights over Forests: Lessons and opportunities for Practitioners*****. Washington, D.C.: Forest Trends.**

**White, A., & Martin, A. (2002b).** ***Who Owns the World's Forests? Forest tenure and public forests in transition*****. Washington D.C.: Forest Trends.**

**Wilshusen, P. R., Brechin, S. R., Fortwangler, C. L., & West, P. C. (2002). Reinventing a Square Wheel: Critique of a Resurgent "Protection Paradigm" in International Biodiversity Conservation.** ***Society and Natural Resources, 15*****, 17-40.**

**Wilshusen, P. R., & Murguia, R. E. (2003). Scaling Up from the Grassroots: NGO networks and the challenges of organizational maintenance in Mexico's Yucatan peninsula. In S. R. Brechin & et al. (Eds.),** ***Contested Nature: Promoting International Biodiversity with Social Justice in the Twenty-first Century*****. Albany: State University of New York Press.**

**Wily, L. (1999). Moving Forward in African Community Forestry: Trading Power, Not Use Rights.** ***Society and Natural Resources, 12*****(1), 49-61.**

**Wily, L. (2004).** ***Can We Really Own the Forest? A Critical Examination of Tenure Development in Community Forestry in Africa*****. Paper presented at the Tenth Biennial Conference, International Association for the Study of Common Property (IASCP).**

**Wily, L. A. (2001). Reconstructing the African Commons.** ***Africa Today, 48*****(1), 77-99.**

**World Bank. (1996).** ***Regional Report Burkina Faso - Mali - Niger - Senegal - The Gambia 2nd Edition*****. Washington, DC: World Bank.**

**World Bank. (2006). World Development Indicators database. Retrieved March 22, 2007, from http://devdata.worldbank.org/external/CPProfile.asp?PTYPE=CP&CCODE=GMB**

**Young, E. (1999). Local People and Conservation in Mexico's El Vizcaino Biosphere Reserve.** ***The Geographical Review, 89*****(3), 364-390.**

**Zewdie, Y. (2004). Room for Manoeuvre: Local Organisations and Resource Tenure Administration in Highland Kafa, Southwest Ethiopia.** ***EASSRRR, XX*****(2), 31-58.**