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# Conservation With a Human Face? Comparing Local Participation and Benefit Sharing From a National Park and a State Forest Plantation in Tanzania

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## Abstract

Participatory approaches to natural resources management have evolved as a way to secure local people's support for environmental conservation. This study compares participatory approaches used by a national park and a state forest plantation in Tanzania. It shows how in similar settings, various parts of the State pursue various policies that affect communities in different ways. The extent of participation and amount of benefits accrued are found to have a paramount role in determining local people's attitude to conservation. Local communities do not generally regard the national park as being beneficial, while the forest plantation is regarded as an important means for their survival. The failure of the park to allow meaningful local participation and equitable sharing of the park's benefits with affected local people, is leading to hatred, resentment, and illegal harvest of natural resources from the park.

## Keywords

benefit sharing, conservation, local communities, participation, Tanzania

## Introduction

During the last three decades, natural resource management policies have changed dramatically from a pure “preservationist model” or a “fences and fines” approach, to more decentralized approaches (Gibson & Marks, 1995; Hulme & Murphree, 2001; Songorwa, 1999). Participation and benefit sharing has been a popular strategy designed to offset conservation costs and motivate local people to support conservation (Archabald & Naughton-Treves, 2001; Scherl et al., 2004) by aligning their behavior with conservation goals (Borrini-Feyerabend, Banuri, Farvar, Miller, & Philips, 2002; Gibson & Marks, 1995; Hulme & Murphree, 2001; Scherl et al., 2004). Many national governments, development partners, and conservation multinationals argue for participatory approaches (Inamdar, De Jode, Lindsay, & Cobb, 1996) as they engender win-win outcomes through environmental management and economic development (Benjaminsen & Svarstad, 2010).

Participatory approaches have been implemented for about three decades, however they seem to have yielded mixed results (Barrett, Lee, & McPeak, 2005; Gibson & Marks, 1995; Newmark & Hough, 2000; Wang, Lassoie, & Curtis, 2006). The extent to which these approaches secure local people's support for conservation may depend on the degree of involvement and the scale of benefits accrued (Child, 2003). In addition, success will depend on the

protected area goals, objectives, methods, and mission (Mannigel, 2008), and the ability of protected area “managers to reconcile biodiversity conservation goals with social and economic issues” (Andrade & Rhodes, 2012, p. 1).

In Tanzania, the Ministry of Natural Resources and Tourism (MNRT) adopted locally based and decentralized approaches to natural resources management from the late 1980s, following the economic crisis of the late 1970s to the early 1980s and the resulting declining capacity of government agencies (Nelson & Blomley, 2010). The intention was to involve local people in the management of natural resources and for them to influence management decisions while benefiting directly from conservation. The two sectors, forests and wildlife, underwent policy reform processes in the 1990s. They used various techniques and approaches with the intention of creating good relationships through influencing local people's attitudes and perceptions, to engender support for biodiversity conservation (Hulme & Murphree, 2001; Newmark & Hough, 2000). Individual

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studies from these sectors reveal that success so far has been limited (e.g., Benjaminsen & Bryceson, 2012; Brockington, 2007; Holmes, 2003; Kideghesho, 2006; Vihemäki, 2005). There are few studies that have closely compared the performance of these sectors in meeting participatory objectives (e.g., Nelson & Blomley, 2007, 2010), although these studies focus more on community-based forestry and community-based wildlife management. Studies that compare both sectors by focusing on national parks and forest plantations, especially when they affect the same people, are lacking in the academic literature.

This article investigates how participatory approaches used by the Kilimanjaro National Park (KNP) and the West Kilimanjaro Forest Plantation (WKFP) influence local communities' reactions toward the study areas. KNP is managed by the Tanzania National Park Authority (TANAPA), while WKFP (60.19 km<sup>2</sup>) is managed by the Tanzania Forest Services Agency (TFSA)—formerly the Forest and Beekeeping Division (FBD). The national park was significantly expanded in 2005 after the inclusion of a forest reserve (1,078 km<sup>2</sup>) that had been managed by the FBD through Joint Forest Management (JFM). The inclusion of the forest reserve was associated with changes in institutions, the legal framework, distribution of powers, authority, resources, and changes in natural resource management agents. This transition reflected substantial changes in the relationships between people and the State, and between people and the park, in terms of natural resource access and rights.

The reason for selecting these two areas is that they have more or less the same location and therefore concern some of the same local people. Both areas experienced the paradigm shift from fortress conservation to community conservation (Hulme & Murphree, 2001). According to the International Union for Conservation of Nature (IUCN) classification, KNP is classified in category II (an area managed mainly for ecosystem protection and recreation) and WKFP is not included in the IUCN category system. According to Dudley (2008), forests that are commercial, that is timber plantation of exotic species and as such, do not constitute a forest protected area. Exploring the performance of these two areas in terms of participatory approaches can shed light on how they can improve the relationship with adjacent local communities.

The park and forest plantation involve and benefit local people in very different ways. At KNP the withdrawal of natural resources is prohibited, however the park benefits local people through community development projects. For example, park management involves local people in extinguishing a fire during any incident of fire outbreak in the park. At WKFP the management allows local people to; collect some forest products, participate in the logging business (for registered customers), provide casual labor for various activities in the plantation, and engage in farming activities through the *taungya*<sup>1</sup> system (commonly known as the *shamba* system in East Africa). As with KNP they are

also involved in helping during fire incidents in the forest plantation. This article argues that the level of participation and benefits applicable to the livelihoods of local people affect the way local communities react toward the national park and the forest plantation.

The next section discusses the concept of “participation,” followed by a description of the study area, the methods of data collection and the data analysis. Then the findings are presented before moving on to the discussions and conclusions.

## What Is “Participation”?

The term *participation* is well debated and discussed in development and conservation literature (e.g., Agarwal, 2001; Cleaver, 2001; Hickey & Mohan, 2004; Mohan & Stokke, 2000). The term has been used in many contexts and is understood in a variety of ways (e.g., Reed, 2008; Rowe, Marsh, & Frewer, 2004; Wilcox, 2003). In this study the term *participation* is defined following Hoben, Peters, and Rocheleau (1998) definition as a process through which different stakeholders influence, share, and keep control over development initiatives and over decisions and resources that affect them.

Local people's participation in development and conservation has enjoyed general acceptance among various actors in recent decades. Nevertheless, despite its acceptability, participation in development continues to attract criticism (e.g., Cooke & Kothari, 2001; Diamond, Nkrumah, & Isaac, 2004; Hickey & Mohan, 2004). For example, some scholars who support the concept (e.g., Diamond et al., 2004; Mannigel, 2008; Ribot, Chhatre, & Lankina, 2008) argue that participation can be used as a *means* (method) to promote more efficient (effective, cheap) management or as an *end* to enhance equity and empowerment. Cooke and Kothari (2001), however, argue that not only is participation unable to facilitate meaningful social change it largely maintains existing power relations through masking this power behind the rhetoric and techniques of participation. Mohan and Stokke (2000) further argue that participatory approaches tend to neglect local power relations and inequalities (as they consider local communities as homogeneous entities), and underplay the role of broader political and economic forces.

There are several degrees of participation ranging along a continuum from nominal, passive, informing, giving options, active functional, interactive, and taking responsibility (Borrini-Feyerabend, 1996; Diamond et al., 2004; Mannigel, 2008; Pimbert & Pretty, 1997). When put into consideration the logic of “acting together” or “taking part,” the extremes “nominal,” “passive,” and “taking over management responsibility” are not considered particularly participatory. This is because at those levels, local people and institutions are only distantly involved in management and decision-making activities (Mannigel, 2008, p. 500). The same author argues that, in rural development and in nature conservation studies,

the activities on these three levels are commonly referred to as participatory.

In terms of natural resources management, participatory approaches assume that, if local communities participate in the management of natural resources and/or benefit they will be more likely to support conservation (McNeely, 1995; Wells & Brandon, 1992). However, several studies have criticized participatory approaches in natural resources management for failing to achieve their goals in terms of devolving decision-making powers to and/or benefiting local people while promoting conservation (e.g., Barrett, Brandon, Gibson, & Gjertsen, 2001; Nelson, 2010; Newmark & Hough, 2000; Sachedina, 2008; Songorwa, 1999).

The extent to which people participate in natural resources management depends on the approach used by conservation institutions, which largely is determined by the extent of power sharing, in this case, between the State and community (E. Barrow & Murphree, 2001; Pimbert & Pretty, 1997). Weber (1919) defines a State as the “human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory.” The same author notes that the State may ascribe to other institutions or to individuals the right to use physical force only to the extent to which it permits such use. For example, power can be ascribed to natural resources institutions to regulate access and control of resources, or provide rules defining the distribution of benefits. Thus, the State controls the activities of institutions and their members through legislation, policies, regulations, and strategies that encompass binding rules (Chazan, 1994).

With regard to State and local participation in natural resources management in Tanzania, the government<sup>2</sup> through its parliament makes official decisions concerning natural resources management policies, and Acts that legalize the management of natural resources, and participation of different stakeholders. Different institutions under the MNRT manage all renewable natural resources. For instance, wildlife resources fall under three conservation institutions: TANAPA that manages national parks and has its own ordinance and policy; Ngorongoro Conservation Area Authority that manages Ngorongoro Conservation Area (NCA) and has its own guideline; and Wildlife Division that manages wildlife outside national parks and NCA and has its own policy and guidelines. All responsible institutions for wildlife management use the Wildlife Act of 2009. However, the TFSA manages the forest sector and has its own Act and policy. All these legal documents have aspects of how local people should participate and benefit from natural resources.

The common participatory approaches used by these institutions include protected area outreach program practiced by TANAPA, community-based natural resources management practiced by Wildlife Division and TFSA, and co-management regimes practiced by TFSA. Tumusiime and Vedeld (2012) argue that success of these participatory initiatives may depend on the extent of involvement, amount of

benefits accrued, and distribution. Studies elsewhere reveal that benefit sharing initiatives face a number of challenges such as corruption, lack of transparency (Cooksey, 2011; Jansen, 2009; Nelson, 2010, 2012; Sachedina, 2008) rarely generate significant benefits or deliver sustainable alternative local livelihoods (Cernea & Schmidt-Soltau, 2006; Hackel, 1999). Additionally they are not always equitably shared within communities (West, Igoe, & Brockington, 2006; Kiss, 2004) as illustrated in Uganda (Tumusiime & Vedeld, 2012), Tanzania (Kideghesho, 2006), Kenya (Norton-Griffiths & Said, 2010), and Madagascar (Ferraro, 2002).

This article considers these issues in theory and in practice by exploring the case of KNP and WKFP.

## Method

### *The Study Area*

KNP is one of 15 parks in Tanzania managed by the TANAPA. The park was formerly known as Mount Kilimanjaro Forest and was protected by the German Colonial Government under the Forest Conservation Ordinance of 1904 (Kivumbi & Newmark, 1991). In 1940, it was gazetted as a forest reserve by the British Colonial Government under the Forest Ordinance of 1921 for water catchment and forest products. In 1941, the colonial government approved a half-mile forest strip (HMFS) of 0.8 km wide (area of 87.69 km<sup>2</sup>), as a buffer zone between the forest reserve and the more densely populated villages along the southern lower slopes of the mountain. The motive was to provide local people with firewood, fodder, building poles, wood and non-wood products. This strip was managed by the local *Chagga* Council (Kivumbi & Newmark, 1991).

In 1973, the mountain above the tree line ~2700 m was reclassified as a national park, covering an area of 753.81 km<sup>2</sup>. The remaining part of the forest reserve (1,078 km<sup>2</sup>) continued to be managed by the FBD without local participation. However their management was ineffective and led to continual deforestation. In response to this problem and following the decentralization policies in the 1990s, the New Forest Policy was formulated in 1998, which among other issues emphasized participatory management and decentralization (United Republic of Tanzania [URT], 1998). Thus, FBD established Community-based Forest Management in which communities are managers and owners of forests, and JFM in which local communities co-manage forest reserves with central and local government authorities (URT, 1998).

Subsequently, JFM was adopted in the Kilimanjaro Forest Reserve with local people participating in management and benefiting from the reserve (Tanzania Specialist Organization on Community Natural Resources and Biodiversity Conservation [TASONABI], 2001). However, in September 2005, the forest reserve and some parts of the HMFS were annexed to the park after the survey report that revealed

major threats to Mount Kilimanjaro in the form of logging, fires, charcoal burning, *shamba* (farm) practices, livestock grazing, forest villages (squatters), and landslides (Lambrechts, Woodley, Hemp, Hemp, & Nnyiti, 2002, p. 5).

Currently, the park covers an area of 1831.81 km<sup>2</sup> (Kilimanjaro National Park Authority [KINAPA], 2006). The main activities allowed in the park are non-consumptive tourism, education, and research. Mount Kilimanjaro (5,963 m altitude) is one of the major attractions in the park. The park borders 90 villages, all of which are included in the park's outreach program. The TANAPA outreach program also known as Community Conservation Services (CCS) was initiated in 1988 with the help from the African Wildlife Foundation. The aim was to build good relationships between parks and the local communities surrounding them. The CCS program is based on the motto "good neighborliness" (Goldstein, 2005; TANAPA, 1994). The 1994 National Parks Policy stresses that "the outreach program will be accompanied by mechanisms to ensure that the benefits of conservation are shared with local communities in appropriate ways" (TANAPA, 1994). The CCS was adopted in KNP in 1994 (KINAPA, 1995).

To the north and north-west of Kilimanjaro, beneath the natural forest and village land, there were forest plantations established in 1926 and 1954 respectively, during the colonial period (for timber and poles production) and expanded after independence in 1961. The total area of plantations to the north-west of Kilimanjaro (WKFP) is 60.19 km<sup>2</sup> (Ngaga, 2011). Of the 60.19 km<sup>2</sup>, only 44.58 km<sup>2</sup> is covered with trees (TASONABI, 2001). The remaining area consists of catchment forest areas, steep slopes, valley bottoms, hills and water sources (WKFP, 2008). WKFP was established through the *taungya* system to licensed cultivators. It is owned by the Government of Tanzania and managed by the TFSA.

To incorporate the participatory aspects in WKFP after the Forest Policy of 1998, the plantation management in collaboration with FBD explored JFM opportunities (TASONABI, 2001). However, interviews with forest plantation management revealed that the mode of operation of the plantation did not support JFM. In addressing the participatory issues, the management objectives of the plantation were modified to include: the production of non-wood products, which are harvested by local communities; local participation in management; and benefiting from the plantation (TASONABI, 2001).

Mount Kilimanjaro is characterized by a bimodal rainfall pattern, with long rains from March to May, and short rains from October to December. The rainfall varies with altitude and ranges from 2,300 mm at lower altitudes (the forest belt) to less than 200 mm at the summit (The United Nations Environment Programme-World Conservation Monitoring Centre [UNEP-WCMC], 2009).

The Chagga are the largest ethnic group on the southern and eastern slopes of Mount Kilimanjaro. Ethnic groups,

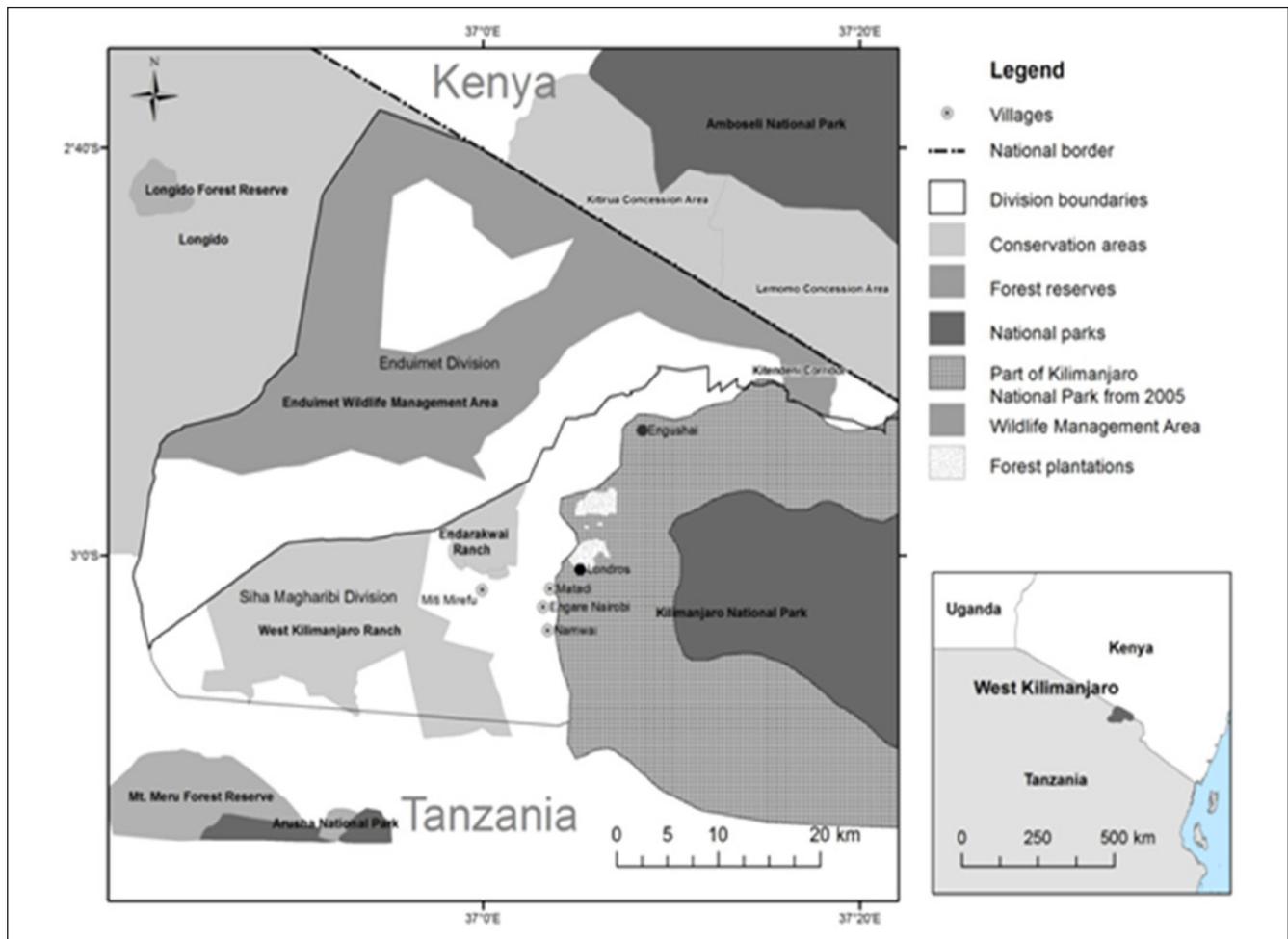
such as the Maasai, the Safa, the Pare, and other small groups are found on the western and northern parts of the mountain. The slopes of Mount Kilimanjaro are now occupied by more than one million people (Hemp, 2006). The annual population growth rate for the Kilimanjaro region was 2.9% during the 1988-2002 inter-censal period (Population Planning Unit, 2005). Due to the high population density and land scarcity along the mountain slopes, zero-grazing is practiced by many people, which means that the forest is the main source of fodder for domestic animals.

This study was conducted in three villages, namely, Namwai, Engare Nairobi, and Matadi. They are located on the western side of Mount Kilimanjaro in the Siha Division. These villages (former squatters) were officially registered by the government in the 2000s. All the villages are adjacent to KNP and close to WKFP. They are included in the park's neighborliness list. Some members of these villages were evicted from the natural forest in 2006 and from the forest plantation in 2007. The population of the three villages was 23,411 in 2009. The main economic activities are small-scale farming, small-scale livestock keeping, small-scale business, timber/log business, casual labor in plantations, formal employment, and a few villagers assisting tourists as porters. Many villagers practice the *taungya* system in the forest plantation (Figure 1).

### Data Collection and Analysis

Empirical data was collected during different periods between 2009 and 2012 (8 months of field work in total). Initially, the study sought to investigate the KNP outreach program and therefore first interviewees were purposefully selected such as village government leaders, villagers (males and females aged 18 years old and above), the park's outreach warden, the park's protection warden, and tourist porters. The local people who were interviewed reported a negative relationship with the park and indicated the forest plantation as a good neighbor. This observation prompted to study the participatory approaches and benefit sharing schemes used by the KNP and WKFP. In the follow-up fieldwork villagers, village government leaders, the forest plantation manager, forest plantation staff, former forest reserve staff, and former village natural resources committee members were purposefully selected and interviewed. The interviews were qualitative, semi-structured, prepared specifically for the interviewees, and conducted in Swahili, i.e. a language understood by most of the people in the study area.

A total number of 68 people (37 men and 31 women) were interviewed in this study. The interview sessions lasted between 1 and 2 hr each. Saturation point was reached when consequent interviews revealed no new information regarding the study topic. Interviews were supplemented with informal discussions with different people, participant observation, and focus group discussions with 6 to 10 people in each study village. In addition, the researcher attended the



**Figure 1.** Overview map showing study villages, Kilimanjaro National Park, and the West Kilimanjaro Forest Plantation.

village assembly at Engare Nairobi village, and reviewed relevant literature and several studies conducted in the area. On this basis a lot was learned on how local communities are involved and benefit from each area.

Each interview began by informing the interviewees about the research project and seeking their consent to participate in the study. The participants were encouraged to express themselves freely, and were guaranteed anonymity and confidentiality. A notebook was used to record information from the interviewees, and when permission was granted a tape recorder was used to record data, which was later transcribed. The collected data was analyzed by identifying themes and patterns, organizing them into coherent categories, and linking them to the aims of the study. In addition, statements were written that could be supported by appropriate illustrative quotes from the interviews to explain each theme.

## Results

The analysis of field data revealed five main themes: the process of expansion of KNP, access to natural resources after

inclusion of the forest reserve in the park, local people participation in managing the KNP and WKFP, benefit sharing schemes, and the relationship between local communities, KNP and WKFP. A description and discussion of each theme is in the following sections and a comparison summary of the KNP and WKFP is presented in Table 1.

### *The Process of Expansion of the KNP*

As elaborated in the “Method” section, the Kilimanjaro Forest Reserve and some parts of the HMFS were annexed to KNP in 2005 after Lambrechts et al. (2002) revealed major threats to Mount Kilimanjaro. However, the analysis of field data reveals that KNP did not fully involve local people during the inclusion of the forest reserve into the park. As one interviewee stated, “the park officials did not conduct any meeting with us; they passed in some households and took some individuals’ opinions and then considered these as the opinions of all villagers; something which is false” (Interview no. 7, 2011). The process was not clear about changes in user rights, restrictions on entry to the forest, and access to forest resources.

**Table 1.** Summary of the park and the forest plantation's participatory approaches.

	KNP	WKFP
Administration	<ul style="list-style-type: none"> <li>• TANAPA</li> </ul>	<ul style="list-style-type: none"> <li>• TFSA (formerly managed by FBD)</li> </ul>
Participatory approach	<ul style="list-style-type: none"> <li>• Outreach program—sharing up to 7.5% of park's operational budget</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in various activities in the plantation—Casual labor, farming opportunities, provision of logs for community projects, purchase logs (registered customers), in-kind benefits.</li> </ul>
Criteria and procedures	<ul style="list-style-type: none"> <li>• Cumbersome and complex, bureaucratic, top-down, sometimes politically influenced</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to follow, but sometimes affected by favoritism</li> </ul>
Benefits	<ul style="list-style-type: none"> <li>• Only one of the study villages supported in 2002/2003</li> </ul>	<ul style="list-style-type: none"> <li>• Access to forest products</li> <li>• Payment from casual labor, farming opportunities (for food and cash); logging business, logs provision for development projects.</li> </ul>
Participation in management	<ul style="list-style-type: none"> <li>• Fire extinguishing</li> </ul>	<ul style="list-style-type: none"> <li>• Fire extinguishing,</li> <li>• Planting trees, tending trees, various activities through casual labor</li> </ul>
Costs of conservation	<ul style="list-style-type: none"> <li>• Crop raiding; no access to natural resources; punishment, harassment, death, rape, fines or court cases</li> </ul>	<ul style="list-style-type: none"> <li>• Crop raiding</li> </ul>
Shortcomings	<ul style="list-style-type: none"> <li>• No communication; no decision-making power; top-down approach; no buffer zone; Minimal/no benefits,</li> </ul>	<ul style="list-style-type: none"> <li>• No decision making; top-down approach; favoritism</li> </ul>
Relationship	<ul style="list-style-type: none"> <li>• Negative relationship—Hatred, resentment, illegal access of resources, referred to as an “enemy”</li> </ul>	<ul style="list-style-type: none"> <li>• Positive relationship—Referred to as a “savior”</li> </ul>
Local people's desirable condition	<ul style="list-style-type: none"> <li>• To have share of park revenues</li> <li>• To have some extent of decision making over forest conservation</li> <li>• Payment in case of fire if cannot harvest resources, and have buffer zone</li> </ul>	<ul style="list-style-type: none"> <li>• Be assisted to form groups and participate in benefit deals (logs)</li> <li>• Benefit through income from sold trees</li> <li>• Join hands in plantation management</li> </ul>

Note. KNP = Kilimanjaro National Park; WKFP = West Kilimanjaro Forest Plantation; TANAPA = Tanzania National Park Authority; TFSA = Tanzania Forest Services Agency; FBD = Forest and Beekeeping Division.

The park demarcated the area without the local people's involvement, and unfortunately included portions of people's farmland into the park boundaries. This intensified the conflict, which was later resolved by positioning some beacons in cooperation with villagers and district officials (Interview no. 7, 2011). The park did not consider the provision of a buffer zone where communities could harvest forest products (Interview no. 9, 2011). Furthermore, the park management dissolved the village natural resources committee and decided to handle all matters of park management without the participation of local people (Interview no. 8, 2009). Whilst the process of expansion of the KNP annexed only the Kilimanjaro Forest Reserve, the WKFP continued to be managed by FBD under the same objectives as before (Interview, Natural Resource Officer, 2012).

### *Access to Natural Resources After Inclusion of the Forest Reserve in the Park*

After the forest reserve was annexed to KNP, entry or harvesting any natural products from the park without permission is considered to be illegal. The park is patrolled by park

rangers. Some women who entered the park illegally reported being raped, sexually harassed, or had their property confiscated. Likewise, men reported instances of being arrested, beaten, and prosecuted (Interview no. 12, 2011). Furthermore, restrictions have even been imposed on searching for lost children or livestock in the forest. The park staff demands that villagers must wait for them to come before entering the forest, and in most cases, their response is not timely (Interview no. 19, 2009). The lack of cooperation in handling illegal activities in the park seemed to tarnish the image of the villages and negatively affect their fund application for development projects as the park management demands that villages should abstain from illegal activities. Villagers describe this system as “arrest and send” (*kamata peleka*; Interview nos. 20 & 21, 2009). Those who were caught in the forest were mainly: collectors of firewood, fodder, poles, and plants for traditional medicine; traditional hunters; farmers (cannabis); and timber splitters (Interview no. 22, 2009). However, the Park Rangers seemed to respect permits stamped by village governments and issued to plumbers working on irrigation canals (Interview no. 26, 2009).

Based on restrictions imposed by the park, villagers reported that WKFP is the main hope for their livelihoods. One interviewee stated, “. . . without this forest plantation, people could not live here, they would have vacated. . .” (Interview no. 2, 2009). Villages and nearby towns depend on the plantation for their firewood needs. The local people are allowed to collect firewood during thinning and harvesting periods. Fodder harvesting is also allowed, if it does not take place at water sources. Moreover, people purchase construction poles, participate in the logging business (for registered customers), and are involved in farming opportunities in the plantation, and seasonal employment.

### *The Involvement of Local People in Managing the Park and the Plantation*

At KNP local people are involved in park management through fire extinguishing exercises. However, they are not allowed to enter the park before the park rangers arrive. It is worth noting that fire extinguishing is on a voluntary basis; thus, no payment or incentive is given other than food. The villagers claimed that in such exercises they work as a team with park officials and, thereafter, the relationship ends (Interview no. 2, 2009; Interview no. 1, 2011). As the park rangers are paid for fire extinguishing duty the local people feel that they should also be paid, since they do not have any share in the forest (Interview no. 4, 2009). To emphasize the situation, the villagers claimed that the park recognizes them only in the event of catastrophes (Interview no. 4, 2009). Such a relationship has caused many people to turn away from cooperating with the park because they do not regard themselves as stakeholders in the management of the forest. The local people compare the current management of the forest reserve with the former management under the FBD, as one village leader asserted,

In those days, many people turned up to extinguish fire because they knew the reserve belonged to them, . . . but now we have to convince and force them because they are not paid and do not benefit from the park. (Interview no. 5, 2011)

At WKFP the situation is different. The plantation management has created awareness in the surrounding villages about conservation, fire control, and prevention measures. In cases of fire outbreaks the communities react quickly to extinguish the fire and do not demand payment (Interview WKFP, 2012). However, some interviewees revealed that the WKFP structure is rigid and they lack participation in decision making. The following section describes the benefit sharing schemes used by KNP and WKFP.

### *Benefit Sharing Schemes*

*Criteria and procedures.* The benefit sharing scheme of the CCS involves support for community-initiated projects

(SCIP), conservation education, and income generating projects. SCIP was initiated in 1992 to support social projects of villages bordering or close to national parks (Goldstein, 2005).

To obtain support from the park, KNP's neighboring villages have to comply with a set of criteria. These criteria include: the village should be free from poaching; it should not have previously been supported by the park; conservation education has been provided; the village is in close proximity to the park; and the project should be of importance to the community (Nyeme & Nilsen, 2010). However, the interviews revealed that most of the studied villages lack awareness about the criteria used for selecting projects for support. The main criterion known by villagers was “proximity to the park,” which they defined as having a “patch of natural forest” bordering the park. There was generally a lack of awareness on park matters because the park has not conducted any meeting in the study villages.

Apart from the criteria, there are established procedures to follow that include holding a village assembly to select a project, submitting minutes of the meeting, and presenting an application letter outlining the reason for the request, the amount requested, project description, drawings and cost estimates, while being able to meet about 30% of the project costs (Nyeme & Nilsen, 2010). The district authorities must be involved in these procedures, and the SCIP committee should approve the project before it is forwarded to national parks headquarters to be considered for funding. Before project implementation a memorandum of understanding has to be signed between the community, the park and district authorities (Nyeme & Nilsen, 2010). The interviews revealed that some of these procedures are known by village government, however they are rarely followed because they are bureaucratic and top-down. In most cases district level officials initiate the procedures rather than the communities in need. For instance, applications for construction of water intake and a water storage tank in Matadi village, as well as a secondary school library in Namwai village, were initially negotiated between the District Commissioner and KNP before the villages were involved. Other procedures were not followed (Interview nos. 27, 28, & 50, 2009). Moreover KNP has only one Park Outreach Warden who has a large workload in visiting 90 villages and consequently has insufficient time to assist villagers with any SCIP applications.

At WKFP the criteria for benefiting includes closeness to the plantation, and the criteria for the allocation of *taungya* plots include: health-related aspects (e.g. long periods of sickness, HIV/AIDS affected persons), age-related factors (e.g. elderly people), orphans, widows, poor people, plantation staff, and casual laborers who work in the plantation.<sup>3</sup> The local people in need of plots register their names with the respective hamlet leaders. In some instances HIV/AIDS affected persons, disabled and widows go directly to the plantation management to seek further attention. No fee is required to acquire a plot (cf. Dean, 2011).

As in the case of KNP, at WKFP the process also has some weaknesses. The interview responses revealed some aspects of favoritism in the process of plot allocation. First, the village leadership registered the names of villagers according to the set criteria, however the plots were allocated to other persons. Even though plantation management sometimes cross checked the process the problem remained in some villages, as one widow lamented:

I have been to plantation headquarters and in our village government office for more than 4 times applying for a plot. I was given a promise but during the plot allocation exercise, my name was not in the list . . . I am tired; I have lost hope. (Interview no. 42, 2012)

Second, some villagers reported that the management in the forest plantation favors relatives, friends, or influential people in the community during the allocation of plots; and some staff engage in corruption by allocating plots to themselves where they later sell the user rights, rent out, or give to relatives or friends.

**Benefit sharing.** KNP does not share monetary benefits with local communities. Instead it benefits local communities through SCIP. During implementation of these projects the park contributes up to 70% of the project costs and the community contributes the remaining 30%. Although KNP is not the most visited national park in Tanzania, it ranks number one in terms of generating revenue. It generates about 38% of the total revenue of Tanzania National Parks, followed by the Serengeti National Park (33%; Kessy, n.d.). This is because tourists stay in the park longer (while climbing Mount Kilimanjaro) than those visiting the other national parks in the northern tourist circuit. Tourists spend money on accommodation, transport, food, and souvenirs. The information from the Tourism Department shows that from 2002 to 2008 KNP generated about 102.1M US\$ (about 17M US\$ per year).

The revenues collected from KNP and other parks go to the National Park's headquarters where the "park's operational budget" is allocated. Only 7.5% of the budget goes to communities for SCIP. From its inception in 1994 to 2011 (17 years) the KNP's CCS Department has spent only about 1.6M US\$ to support 39 out of 90 villages neighboring the park. The types of social projects supported include: construction of public schools and purchase of furniture; construction of cattle troughs, cattle dips, water tanks, bridges, dispensaries and staff houses; making energy saving stoves; establishing tree nurseries; beekeeping projects and women's sewing projects. The information from National Parks headquarters shows that in 2007 they earned 56.3M US\$, of which only about 1M US\$ (1.8%) was allocated to 15 national parks for outreach program activities (TANAPA, 2007, cited in Tanzania Natural Resource Forum, 2008).

In the study villages only Matadi village was supported in 2002/2003 to construct a water intake and storage tank worth approximately 13,571 US\$. In 2008 the village applied for support to complete a student hostel project, however it was not considered by the CCS Department (Interview no. 34, 2009). According to the CCS Warden, the department does not prioritize projects that had already started claiming that 'they do not know their quality'. The village leadership reported that the outreach department did not take any initiative to evaluate whether the building project was worthy of support. Similarly, Namwai village applied for support to construct a secondary school library. However, the application was unsuccessful as the park claimed that it faced financial constraints (Interview CCS Warden, 2011). From the time of application in 2009 to August 2011, the communities had not been informed about the park's decision on their applications. This was a second attempt for Namwai village who had applied in 2005/2006 for support to construct a dispensary also without success (Interview no. 28, 2009). Some interviewees stated that they have lost hope in requesting help from the park.

The analysis of revenue sharing data from the CCS Department from 1994 to 2011 shows that Moshi Rural District had received the most funds (556,940 US\$), followed closely by Moshi Urban District (455,453 US\$). Although Moshi Urban District does not border the park or directly bear the costs of conservation, it had received more funds than other districts that do directly bear the costs of conservation. A good example is Rombo District who had received about half (272,727 US\$) of what Moshi Urban District had received. In 2008/2009, Moshi Urban District received more than half (169,080 US\$) of the total SCIP funds (321,781 US\$) allocated for that year. Most of these funds (148,200 US\$) supported a private catholic secondary school.

Nyeme and Nilsen (2010) point out another example in which 72% of SCIP funds in 2007/2008 were given to Mwanga District that does not border the park. This was made possible through the then MNRT Minister, who was also a Member of Parliament for that district (Nyeme & Nilsen, 2010). Not only does the deviation of revenues to other areas adversely affect the benefits for park neighbors, the revenue from the higher earning parks, such as KNP, supports lower earning parks. Furthermore, mishandling and mismanagement of revenues received by the National Park's headquarters also adversely affects benefit sharing schemes. For example, in 2009 the Opposition in Parliament sought a detailed explanation on the reported misuse of about 5.6M US\$ by National Park's headquarters (Juma, 2009). In addition, after their 3-year term, the 12 Board of Trustee Directors each received a lump sum of money (Anonymous, 2006). Recent criticism of the National Parks headquarters has led the former Director General to resign.

At WKFP local communities benefit from the forest plantation through forest products such as logs (for registered

customers), fodder, firewood, construction poles (during thinning), farming opportunities, and casual labor. Logs are sold to registered customers from the Kilimanjaro region, the Arusha region, and some as far away as Kenya. From 2010 to 2012 the number of customers ranged from 35 to 37 (11 customers in 2012 were from the study villages). The public institutions and the plantation's neighbors purchase logs mainly for construction purposes. For instance, in 2012/2013, 1,000 m<sup>3</sup> of logs were sold to the plantation's neighbors. From 2008/2009 to 2012/2013, the logs and poles products ranged between 14,000 and 21,000 m<sup>3</sup>.

The fee for softwood logs ranges from 1.7 to 32 US\$/m<sup>3</sup> depending on diameter, length and species type. Softwood poles are sold at between 0.13 and 0.64 US\$ depending on the diameter and length. This revenue belongs to the government. Customers are also charged 7 US\$/m<sup>3</sup> for softwood logs for silvicultural activities and road maintenance in the plantation. This revenue is deposited into the Logging Miscellaneous Account, managed by the forest plantation.

The forest plantation does not sell logs to community groups because second and third pruning and tree felling activities are conducted by the customers themselves. Often, community groups deny responsibility when these activities are conducted improperly. Villages in need of logs for social development activities obtain them from the forest plantation after seeking permission from TFSA. For individual construction purposes the villagers are expected to purchase timber from sawmills (Interview WKFP, 2012).

Villagers benefit through casual labor by participating in various activities that take place in the plantation. For example, during the tree planting season people from the surrounding villages, and from further afield, are involved. They are usually paid 2.5 US\$/day and the exercise can take up to a month. The villagers also participate in security activities. There are 19 men and 1 woman from the neighboring villages of Matadi, Engare Nairobi, and Namwai who have been used as security guards in the plantation. Casual labor is also needed to water the seedlings planted in the nurseries. For this exercise the plantation management considers neighboring villages because people are needed to work on a daily basis and whenever such labor is required. The local people, mainly men, are also involved in the construction and maintenance of plantation roads. In the years 2009/2010, 2010/2011, and 2011/2012, the forest plantation management paid 78,321, 73,030, and 77,919 US\$ respectively to casual laborers for various activities in the forest plantation. Other benefits associated with the forest plantation include offering transport during sickness and burial ceremony when the need arises.

The forest plantation also provides farming plots to local people. The availability of plots depends on the extent of land available after tree harvesting. Plots vary in size from 30 × 30 m, 30 × 40 m, 40 × 40 m, and 50 × 50 m. Those who cannot cultivate their plots and those in need of immediate money sell their plots to rich farmers, while some agree with

others to cultivate the plots on their behalf sharing what is harvested between them. However, such arrangements are usually outside of plantation management control.

Small-scale farmers own one to two plots, while large-scale farmers may own up to 20 plots. Small-scale farmers and persons who do not have plots are sometimes hired by large-scale farmers. The small-scale farmers manage to attend their own plots by setting aside time before or after working as casual laborers for the large-scale farmers. Farming is ongoing throughout the year with the main crops being potatoes, carrots and garden peas and the output from one plot varies from 5 to 20 sacks. Tree species determine the length of time a farmer can use the plot. For instance, in plots growing eucalyptus species a farmer could cultivate crops for 2 to 3 years. In plots with pines and cyprus species a farmer could cultivate for up to 4 years, while in less fertile areas the time could be extended up to 5 years.

Overall, the *taungya* system has benefited many people by providing food, cash and employment opportunities. As one man stated, ". . . through the *taungya* system many people have become rich . . . large-scale farmers earn about 28,000 US\$ per one farming season"<sup>4</sup> (Interview no. 15, October 2011). However, the local people do not have any security in terms of the land. In case of destruction of tree species, the right to use the land could be terminated and there is no assurance of plot allocation in the future after the first allocation expires (cf. Dean, 2011). Besides, most persons interviewed expressed fear and insecurity about their livelihoods in the future. They are concerned that if plantation management should change or the plantation is privatized (accompanied by different policies) they may no longer have permission to use the land.

### *The Relationship Between Local Communities, the Park, and the Forest Plantation*

It is beyond doubt that local people depend on KNP for their livelihood needs, as one interviewee stated, "We want to get our immediate needs like firewood and fodder first before development projects . . ." (Interview no. 31, 2011). The lack of alternatives for their livelihoods results in illegal withdrawal of natural resources from the forest, as one interviewee remarked:

. . . is it possible for a poor person to live next to the forest without a buffer zone and watch the forest without extraction of any resource? . . . it is obvious that extraction will occur illegally . . . (Interview no. 9, 2011)

Resentment and hatred toward the park have led people to enter the forest and withdraw natural resources, including green wood, as one interviewee stated,

They have taken the forest, no entry, no access to forest resources, and there is no buffer zone . . . it is a big problem . . .

the park has a difficult task to control us from withdrawing the forest products, and we have a job of watching them—when they leave we must harvest the resources . . . since we are not free to access the resources, we do things we were not doing when the forest was under FBD. (Interview no. 24, 2009)

The village government leader asserted,

. . . We cannot convince villagers to stop illegal activities. We have to keep quiet because it is not our property. If villagers benefit from it, they become guards, but now the park restricts us from entering the forest . . . If someone enters with a saw, will you arrest such a person? The forest is the way it is today because we took good care of it. (Interview no. 18, 2011)

The costs of conservation, such as crop raiding and lack of compensation, also contribute to resentment toward the park, as one interviewee stated, “Wild animals destroy our crops so much. If you dare to say or complain they tell you, you are living in a wildlife corridor. We are not allowed to kill them or beat them” (Interview no. 18, 2010).

Furthermore, there is a lack of communication between the park and the people as one interviewee stated, “KNP works like military army” . . . there is no communication. We don’t know what is going on inside . . .” (Interview no. 45, 2011). These voices imply that the relationship between the park management and the local people is poor.

Management at WKFP reported that the relationship with local communities is good. Confirming this, many people interviewed stated that the forest plantation is a “savior” and a “true neighbor” who cares for their livelihood needs and the less privileged in the community. However, some interviewees reported instances of favoritism from community and plantation management during the allocation of farming plots.

## Comparison of the Park’s and the Forest Plantation’s Participatory Approaches

The results presented above illustrate the process of the expansion of KNP and its impacts on local people, and different strategies used by KNP and WKFP to involve and benefit local people. However, the performance of the two areas is different despite the fact that they fall under the same ministry. In the following section, I elaborate on the underlying factors contributing to the differences.

### Legal Framework

The performance of KNP and WKFP is partly affected by sectoral policies and legislation. The legal documents specify the manner in which local participation and benefit sharing should occur in terms of natural resources management. However, this study found that the local participation and

benefit sharing strategy used by KNP is more rhetoric than reality. In practice, the park operates closely under the “fences and fines” strategy. The park’s approach does not consider the needs of local people and, to a large extent, is a trade-off where tourism and conservation goals are met at the expense of local persons livelihood needs. At WKFP the performance of the plantation clearly reflects a win–win situation where plantation goals, government benefits and local persons needs are met.

As previously stated, KNP is classified in category II by IUCN while WKFP does not fall under any IUCN category. While this may partly explain the difference in the extent of natural resource access by local people in each area, much is left to consider in terms of benefit sharing, participation in decision making, and management of the two areas. Therefore, these aspects are elaborated further below.

### Benefit Sharing

Given the KNP’s high income levels one would expect more benefit sharing and well established relationships with local people. However, this study finds that several factors have shaped the benefit sharing scheme. Firstly, National Park’s headquarters applies a set of criteria and procedures for SCIP application, which are bureaucratic, complex, and lacking transparency (cf. E. G. C. Barrow, Gichohi, & Infield, 2000). It is difficult for local communities to follow the required procedures and in most cases education or assistance is required, particularly for illiterate groups.

Secondly, the bulk of collected revenues from all national parks in Tanzania is remitted to National Park’s headquarters. Headquarters channel the operational budget to national parks and only up to 7.5% of its operational budget is set aside for outreach programs to surrounding villages that bear the cost of conservation (see Goldstein, 2005). This system is different from other countries like Uganda and Kenya where revenue for local people is derived directly from tourists’ entry fees (e.g. Tumusiime & Vedeld, 2012).

Thirdly, external political influence affects benefit sharing with funds being diverted to areas not directly affected by the park. Moreover, SCIP applications are sometimes influenced by district level leaders for political gain and credit (Borgerhoff Mulder, Caro, & Msago, 2007).

Fourthly, the mismanagement and misuse of funds by National Park’s headquarter officials adversely affects the benefits for local people and the amount of revenue left for park outreach programs. Inappropriate leakages and corruption in the wildlife sector have previously been reported (e.g., Benjaminsen & Bryceson, 2012; Benjaminsen & Svarstad, 2010; Cooksey, 2011; Jansen, 2009; Nelson, 2009, 2010, 2012; Sachedina, 2008).

Contrary to the KNP benefit sharing scheme, WKFP has had a more positive impact on neighboring villages. Local communities benefit through; the logs business (for registered customers), collection of forest products, engaging in

income-producing casual labor activities, and the *taungya* system. The demand for (fertile) agricultural land has been met, to some extent, through the plantation's *taungya* system. The application criteria for *taungya* plots are much simpler than the KNP's criteria and guidelines for SCIP application. Since the inclusion of the forest into KNP, the need for forest products has been partly met by the forest plantation. However, the only type of employment offered is casual labor and casual laborers are paid very little. Communities have opted to accept low pay because they lack alternatives and working for the plantation increases their chance of obtaining farming plots. Unfortunately, the allocation of plots has been adversely affected by favoritism. Similar cases of favoritism in *taungya* system have also been reported in Ghana (Agyeman et al., 2003).

### *Participation in the Management of the Park and the Forest Plantation*

KNP focuses strictly on its structure and has no consideration to local persons contributions toward conservation. There is no local community member that plays an active role in park administration or temporary employment. The park considers local people only when there is a fire outbreak; thus, local people claim that they are used as "tools." As a result few turn up to help with fire incidents while others demand payment. KNP's exclusion of local people from park management contributes to the negative relationship that exists between the park and the people. Paraskevopoulos, Korfiatis, and Pantis (2003) found that social exclusion negatively affects conservation attitudes. WKFP does involve local people in plantation management through different activities, and has created positive interaction with surrounding communities. In this case local people participate willingly to help with fire incidents. However, in both areas participation is used as a *means* to improve efficiency in production and/or conservation. Both areas operate on the lowest level of the "participation ladder," although the participation level of WKFP seems to be higher than that of KNP. Many of KNP failures/shortcomings coincide with other protective management studies elsewhere where focus is on structural barriers toward successful public participation (e.g., Lachapelle, McCool, & Patterson, 2003; Wilson, 2003).

### *Participation in Decision Making*

KNP and WKFP share a centralized structure in terms of decision making on matters pertaining to the management of natural resources and benefit sharing. It is difficult for communities to influence or challenge the operation of the central structure. The park management system does not allow space for local people's opinions because of its top-down and paramilitary nature. This was revealed during the inclusion of the forest reserve into the park, as there was no awareness

raising or sensitization about changes of user rights and hence the process took people by surprise (see Lerkelund, 2011). In addition, only district leaders who make decisions have been involved in choosing development projects for support (cf. Borgerhoff Mulder et al., 2007; Durrant, 2004). There has not been any opportunity for villagers to contribute to the park's planning and decision-making processes nor has there been dialogue with park staff to express their problems and seek solutions (cf. Anthony, 2007; E. G. C. Barrow et al., 2000). Moreover, most of the revenue collected has been retained by the National Park's headquarters and local people have no power or influence over its allocation.

In the case of WKFP, local persons have no power or share in the revenue collected from logs and poles sold, apart from payments received for casual labor (cf. Agyeman et al., 2003; Amoah, 2009). Additionally, they have no influence over the amount paid for casual labor, nor do they receive any incentive for tending trees. The income from logs sold is remitted to the central government. Although local people in the forest plantation are viewed as beneficiaries, they are not involved in decision making over forest use (cf. Alden Wily, 2002). Gillingham and Lee (1999) point out that the lack of participation in decision making shapes local persons perceptions of protected areas and affects their relationships with government conservation institutions and other stakeholders. Andrade and Rhodes (2012) found that local community participation in the protected area decision-making process is significantly related to the level of compliance with protected area polices. Silori's (2006) study in India found that lack of involvement of the local people in the decision-making processes and in forest management groups were major causes of negative attitudes toward protected areas.

### *Communication and Awareness*

There is generally a lack of communication between KNP and villagers. There has not been any awareness raising activities to increase public awareness and participation in conservation efforts. Local persons mainly experience the negative side of the relationship with the park through fines, imprisonment, and restrictions (cf. Durrant, 2004). This lack of communication and conservation awareness about the park's objectives and mission may contribute to the negative relationship between the park and local persons. Holmes's (2003) study in western Tanzania found that the number of visits of national parks personnel to the village was associated with positive attitudes. Fiallo and Jacobson's (1995) study in Ecuador found that low level of awareness regarding conservation issues was associated with negative attitudes toward protected areas. Nevertheless, Heinen and Shrivastava (2009) found that higher level of awareness on regulations was associated with negative attitudes toward conservation. Contrary to KNP, the WKFP plantation staff visit villages and raise awareness about environmental issues and fire control measures.

## Relationship

Some studies argue that the fear of law enforcement officials reduces anti-conservation behavior (e.g., Aipanjiguly & Jacobson, 2002). However, this study found that people are engaged in illegal withdrawal of resources from the park regardless of patrols by park rangers for the following reasons: lack of, or very few benefits; denial of access to natural resources; lack of buffer zones to harvest natural resources; ill-treatment when found in the park; and lack of compensation for crop raiding. In addition, villagers referred to the park staff as “enemies” who do not care about their livelihoods (cf. Anthony, 2007). Given the fact that land is a scarce resource in villages surrounding the park (see Hemp, 2006), dependence on the park's natural resources for livelihood needs is unavoidable. Silori's (2006) study in India found that restricted access to forest resources for local persons livelihood needs resulted in negative attitudes among them toward the biosphere reserve. Similarly, Arjunan, Holmes, Puyravaud, and Davidar (2006) found that exclusion of people from a forest to protect biodiversity often antagonizes local communities.

While local communities bear the costs of conservation they do not receive any tangible benefits to offset these costs (cf. Kideghesho, 2006). In addition, the target of benefits from the park is not immediate nor does it address felt needs. The scheme tends to focus on infrastructure, which remains the only testimony of support provided (Redford & Fearn, 2007). Similar findings have been reported by Holmes (2003) in western Tanzania, revealing that individuals who perceived active extension services from national parks held more positive attitudes toward the park than those who did not.

At WKFP benefits obtained by the local people seem to affect the relationship positively. This is revealed through local persons responses in cases of fire outbreaks, during tree planting activities and their corresponding attitude toward plantation staff. In cases of fire outbreaks, their responses are quick and they do not demand payment. The community regards the forest plantation as a “savior” as far as their livelihoods are concerned. This is because the plantation is the main alternative for their livelihoods since the inclusion of the forest reserve into the park.

## Why Do the Park and the Forest Plantation Perform Differently?

The findings and explanation given above show that KNP offers limited opportunities for local people to participate and benefit from natural resources, compared with WKFP. The difference observed is related to the legal framework reforms that took place in the 1990s following the country's economic crisis in the 1980s and the loss of resources and declining capacity of the central government. Institutional changes in both sectors (forestry and wildlife) have continued since the 1990s, however they have not necessarily been

in ways proposed or intended by local proponents of reforms and/or donors (Nelson & Blomley, 2010). The reforms have faced resistance due to the interests and incentives that political elites, central agencies, and private commercial interests pose for expanding and/or maintaining control over land and natural resources (Nelson & Agrawal, 2008). Consequently, reforms were not carried out as intended because competing state and private commercial interests considered the resources “too valuable to allow ordinary citizens to own” (Alden Wily, 2008, p. 4).

According to Nelson and Blomley (2010), the economic crisis of the 1980s prompted policy makers to implement wide-ranging policy changes that were more community-based and decentralized. The process of policy formulation was dominated by international donors, NGOs, technical advisors, and government officials within the MNRT. The same authors argue that, in the forestry sector, donors managed to leverage the process due to FBD's lack of alternative sources of political power and financial capital. Nevertheless, in the wildlife sector, donors had very little influence due to the ability of policy makers to acquire rents from tourism that provided them with financial assets that enabled them to deflect reform pressure from donors (Nelson & Blomley, 2010). Consequently, donors failed to bring about the reforms necessary for positive and direct impacts on rural livelihoods (Nelson & Blomley, 2010).

Although the two sectors are under the same ministry, the existing legal framework causes them to work in different directions indicating that the outputs might be different in terms of participation levels and benefits channeled to local communities. Blomley and Iddi (2009) conclude that the “legal uncertainty caused by the parallel and disconnected development of wildlife and forest policies and laws results in inefficiencies and wasted opportunities for poverty reduction and sustainable land [natural resources] management” (p. 18).

## Conclusions and Recommendations

This article has presented findings on participatory approaches used by a national park and a forest plantation in Tanzania. How the park and plantation work and how they affect the relationship with local people and the resulting attitudes toward the study areas has been presented. Conservationists, government officials, and development partners have presented the notion of participatory approaches as a “win-win” strategy where conservation and local benefits can be combined. Many conservation institutions have used this strategy to win local people's support for conservation. However, this study shows that although some aspects of participatory approaches seem to be typical in KNP, it is evident that the park operates closely under the “fences and fines” strategy. This is contrary to the other case of WKFP where local people are involved and benefit through various activities in the forest plantation. In both cases, we have seen

that the extent of local participation and the amount of benefits accrued seem to determine the communities' relationship with the study areas.

Many factors affect the level of participation and extent of benefits for local people, which can be summarized as follows. At KNP the factors include bureaucratic procedures for SCIP applications; lack of, or few benefits; lack of transparency; deviation of funds; lack of decision making; minimal/passive participation; and lack of communication and awareness. At WKFP, the factors include lack of decision making, too little payment for casual labor, corruption in allocating *taungya* plots, and lack of revenue sharing from logs sold. This article highlights that the differences observed between the park and forest plantation are related to sectoral legal reforms that occurred in the 1990s following the economic crisis of the 1980s.

Some issues were raised in the interviews (Table 1) that the management of the KNP and WKFP can consider to enhance positive relationships and thus reduce the costs of conservation. In the case of KNP local people desire regular positive communication with park staff, tangible benefits from the park's tourism revenues, and some degree of decision making over park conservation issues. They also seek payment in case of fire, if they cannot harvest natural resources, and a buffer zone in which they can collect natural resources. At WKFP local people desire the plantation management to allow community groups to participate in logging business deals, to benefit in the form of income from logs and poles sold, and join hands in the plantation management.

The findings of this article show the failure of the park's participatory approach to create good relationship with adjacent communities through local participation in management and benefit sharing, and the plantations' efforts to build good relationship with adjacent local people. The findings also indicate that the extent of benefits received and the degree of participation used are associated with the negative/positive attitudes toward the study areas. This article concludes that for local people to support conservation efforts and resist illegal activities, the park should allow meaningful local participation in park management and equitable sharing in the park's benefits.

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### Notes

1. An agroforestry system in which short-term food crops are grown in the early years of timber plantations to satisfy the farmer's quest for arable land, control weeds, reduce establishment costs, generate early income, and stimulate the development of woody perennial species (Agyeman et al., 2003).
2. Is a group of people presently elected and appointed to run, manage, and execute the State's programs and policies, and their specific agencies and powers.
3. Is a motivation strategy, as large-scale farmers pay 11 to 17 US\$/day, while the plantation only pays 2.5 US\$/day during tree planting exercises (1 US\$ = 1,500 TZS, June 2011).
4. 20 plots × 20 sacks/plot = 400sacks. A sack contains 100 to 120 kg, sold for about 0.7 US\$/kg.

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