

Tanzania Wilderness Areas

M. G. G. Mtahiko

Abstract—Conservation in many of the African countries differs in terms of approaches but it is generally accepted that no matter what system is adopted all aim at protecting the resources in an optimum condition, as would be practicably possible through application of the most contemporary acceptable methodologies. All aim to balance development that assures acceptable levels of resource impacts while taking into consideration benefit to local communities.

Proactive communities and the private sector are key dimensions to ensure this achievement in the real sense. Presently, conservation aims at enhancing satisfaction of tourists through increasingly diversified activities at a high quality with very minimum negative impact to the resources. The largest challenge, however, is to balance resources utilization with development of different facilities in line with community needs.

Conservation in Tanzania: Tanapa History

Protected Areas (PAs) were first established during the colonial era. Following independence in 1961, more conservation areas were established in several categories. Tanzania National Parks (TANAPA) are under trusteeship management (4 percent of total land area of the country). Human habitation (save for park and tourism investment staff, agricultural activities and hunting) is not allowed. Game reserves (managed by the Game Department) (10 percent of total land area) are where tourist hunting is allowed. Forest reserves (under the Forestry department) (15 percent of total land area, with some 3 percent overlap with PAs devoted to wildlife) are for conservation of forests, including catchment forests. Conservation areas are where human habitation and wildlife co-exists (Ngorongoro Conservation Area Authority).

Resource conservation in national parks, game reserves, conservation areas, and catchment forests is based on general management plans that are developed from Management Zone Plans. Management Zone Plans are developed essentially to govern the types and limits of tourism infrastructure and visitor use in defined zones of a PA. This paper shall concentrate on national parks, the highest level of conservation of natural resources in the country, where consumptive use of resources is not allowed.

Currently the trusteeship manages core-protected areas that cover 4 percent of the total land area of the country.

M. G. G. Mtahiko, Chief Park Warden, Ruaha National Park, Tanzania.

In: Watson, Alan; Sproull, Janet; Dean, Liese, comps. 2007. Science and stewardship to protect and sustain wilderness values: eighth World Wilderness Congress symposium: September 30–October 6, 2005; Anchorage, AK. Proceedings RMRS-P-49. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Tanzania National Parks (TANAPA) is a parastatal trusteeship under the Ministry of Natural Resources and Tourism, enacted by an act of parliament under law of the land (Chapter 412 of 1959).

TANAPA is currently managing 14 national parks, which form the major samples of different biomes and ecological systems in the country. The organization has, through years of experience, developed a strategic planning process, which is used to prepare general management and zone plans for national parks to ensure an appropriate balance between preservation and use of resources. It is mandated to

... manage and regulate the use of areas designated as national parks by such means and measures to preserve the country's heritage, encompassing natural and cultural resources, both tangible and intangible resource values, including the fauna and flora, wildlife habitat, natural processes, wilderness quality, and scenery therein. The park resources should provide for human benefit and enjoyment of the same in such manner and by such means as will leave them unimpaired for future generations.

The primary objectives or purpose of national parks is to preserve areas possessing exceptional values that illustrate the natural or cultural resources of the country; areas that offer superlative opportunities for public benefit, enjoyment, or scientific studies; areas with outstanding examples of a particular type of resource; water and soil resources critical to maintain ecological integrity and that support the subsistence needs of people outside park boundaries; and to ensure:

- Parks retain a high degree of integrity as true, accurate, and unspoiled examples of a resource;
- Management plans for parks are developed by interdisciplinary teams comprised of appropriate professionals with the best available information to achieve a balance between preservation and use that does not adversely impact park resources and values;
- A quality visitor experience rather than "mass tourism" at the expense of park values and resources; and
- Optimum levels of revenue and benefits accrue to the national economy, the parks and communities, without impairing park resources.

Ruaha National Park

This area was first recognized as part of the Saba River Game Reserve in 1910, which was re-gazetted as the Rungwa Game Reserve in 1946. In 1964, the southern portion of this Reserve was declared the Ruaha National Park and in 1974 a smaller section to the southeast of the Great Ruaha River was added to complete the boundaries that exist today (fig. 1). Development of infrastructure has been largely restricted to the eastern central portion of the Park in the Rift Valley bordering the Great Ruaha River.

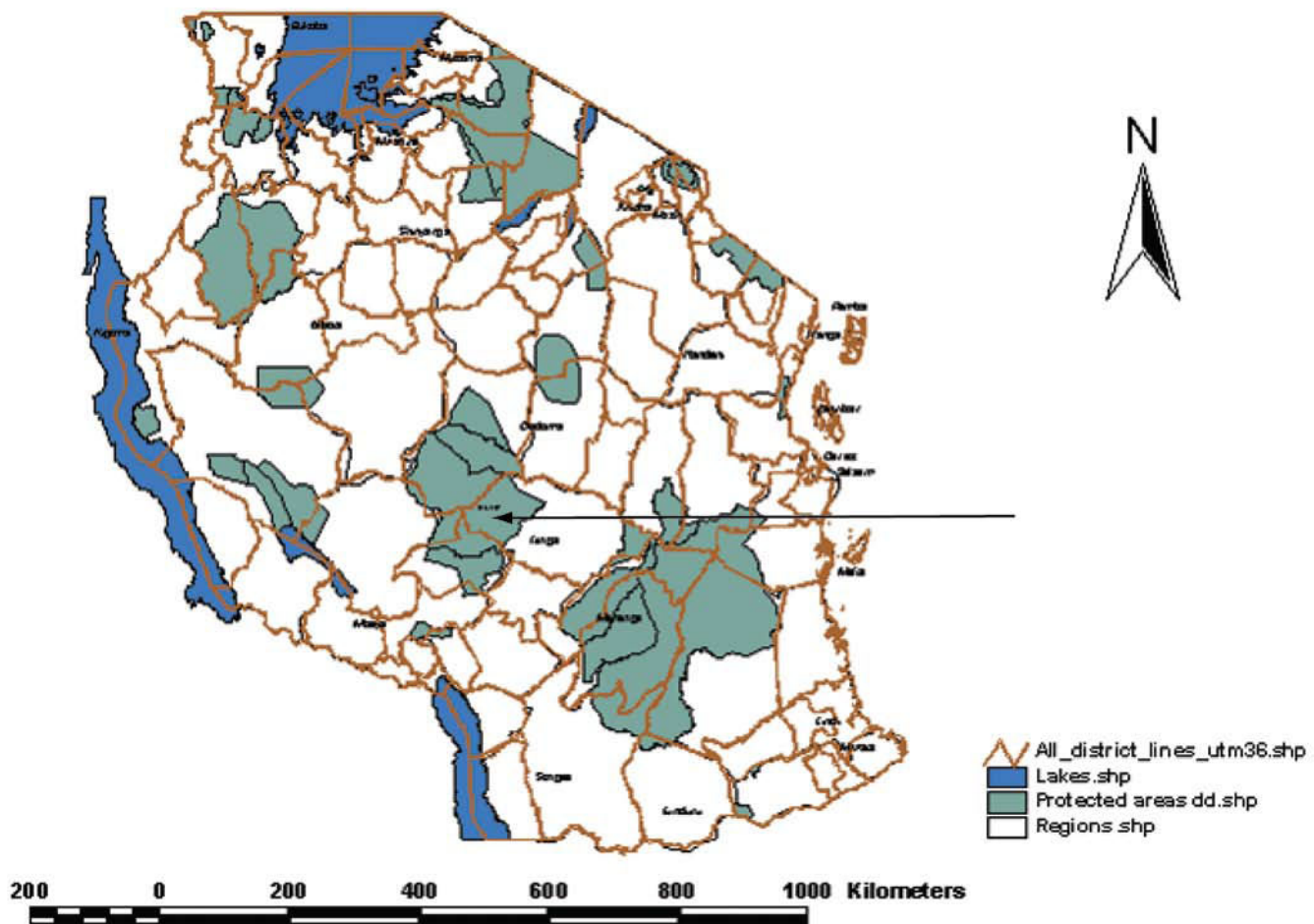


Figure 1—Location of Ruaha National Park in Tanzania, shown by the arrow.

A major event affecting the Park's status was the completion of the bridge across the Great Ruaha at Ibuguziwa in November 1991, allowing a reliable year round access by road from Iringa municipality some 130 km (81 miles) east from the Park boundary. The approach to management taken conforms to the current policy for the preservation and management of wilderness in Tanzania's national parks. Visitor surveys in 1993/94 indicated that the Park's wilderness character was far and away the most appreciated of its qualities and the vast majority of visitors pleaded against development that would destroy this.

The balance between use and revenue from tourism is guided by the General Management Plan (GMP) that spells out what activities and development structures can exist at a certain level at a given area. The plan thus recognizes eight zones for the purpose of resources sustainable management:

1. Wilderness Zone [WZ]
2. Semi-Wilderness Zone [SWZ]
3. Conservation General Use North Zone [CGUNZ]
4. Conservation General Use South Zone [CGUSZ]
5. Core Preservation Zone [CPZ]
6. Conservation Limited Use Zone [CLUZ]

7. Transit Road Zone [TRZ]
8. Park Administration Zone [PAZ].

The Wilderness Zones

Wilderness is a term used in conservation aspects in Tanzania. It is generally used in all forms of protected areas. Wilderness in the Tanzania conservation context refers to management of resources in a portion of a PA. Such portions referred to as wilderness zones are designated for particular uses in addition to resources conservation.

Wilderness zone is not a category of resource conservation in itself, but an area for specific management objectives aiming at separating various uses, mainly resources management with low impact human activities. The management of these zones are directed by a Management Zone Plan, which spells out what activities are allowed and to what level development may or may not be done while emphasizing sustainable resource use and optimum protection.

The Ruaha National Park GMP, like in other parks and protected areas, stresses the natural quality, remoteness, and exceptional resource values for multi-dimensional visitor experiences. To achieve visitor satisfaction, it was important to establish an area that would offer visitor experience and

satisfaction through walking and camping. Wilderness zones give opportunities for diversified visitor activities and at the same time offer visitor distribution, hence alleviating the problem of ‘over concentration’ in certain areas but at the same time gives a chance to be “close to the nature.”

Wilderness Attributes

The Park has an area of 4,200 km² (1,622 miles²) (about 41 percent of the Park area of 10,300 km² (3,977 miles²) established in a wilderness zone. This is a quite sizeable piece of land with usage set at low impact for high satisfaction to visitors. Physical development in the zone is at a minimum to offer low impact but high visitor experience and satisfaction activities. The wilderness zone provides for diversity of visitor recreation opportunities without compromising resources protection. The zone also retains qualities of remoteness while allowing a range of activities by keeping within Limits of Acceptable Use (LAU) stipulated. The area also serves as a “resource bank” for the future, an important component in biodiversity sustainable management. This approach of zoning clearly conforms to the current policy for the preservation and management of wilderness in Tanzania’s national parks (TANAPA 1994a).

Other Similar Areas in TANAPA and Other Protected Areas Systems

Each park that has a comprehensive GMP has an area designated as a wilderness zone where development is at a very minimum. Two Parks’ (Kilimanjaro and Ruaha) GMPs are under review, and Mikumi is in preparation. Currently, the National Parks (not including the newly gazetted Kitulo and Saadani) have a total area of 14,573 km² (5,627 miles²) designated as wilderness zones (table 1). Similarly, other categories of protected areas have similar setting of zones designated as wilderness.

Table 1—Park area in wilderness zone.

Park	Area in Km ²	Remarks
Arusha	?	Zone available, but no size given yet.
Gombe	33.99	
Katavi	1,000.00	1005.00 in semi-wilderness zone
Mahale	1,225.88	
Serengeti	5,149.55	
Lake Manyara	370.00	Includes the Marang Forest
Rubondo	?	Zone available, but no size given
Saadani ^a	No wilderness zone currently	74.00 km ² semi-wilderness zone only. Newly gazetted park, GMP preparation underway.
Tarangire	1,266.53	373.36 km ² in semi-wilderness
Kilimanjaro	?	GMP under review after annexure of catchment forest
Ruaha	4,200	GMP under review
Mikumi		GMP in preparation
Udzungwa	1,327.00	
Kitulo ^a		Newly gazetted park, GMP preparation procedures underway.

^a Newly gazetted national parks.

©TANAPA 2005

Challenges to Management of Wilderness Areas/Zones

Despite each wilderness zone having specific management objectives, they are managed jointly (as one unit) with little available resources. Difficult access, their size, limited financial resources, change of policies as influenced by politics (potential), and inadequate environmental education are challenges managers face.

Being zones of less visitation and low development, these areas are usually at risk of illegal activities unlike those that are frequently visited. Frequent hot fires during the dry season also keep resources at risk. Illegal taking of resources, besides reducing their numbers, also disturbs the animals. This may not be a good situation for the tourists, as frequently disturbed animals tend to be aggressive.

Inadequate funding is an issue since these areas are not established for revenue generation but management requires funds. The funds available will depend on revenue collected by the organization through services provided to visitors.

Importance of Wilderness Zones in Tourism

Wilderness zones are an important setting in protected areas as they form a core base for biodiversity conservation. Wilderness zones are also resource banks, allowing for additional diversified activities, contributing to distribution of tourists, alleviating congestion, increasing stays, and providing opportunities for conventional activities, for example, walking and hiking.

Wilderness zones provide for a diversity of visitor recreation opportunities without compromising resources protection. They retain the quality of remoteness while allowing a range of activities by keeping within the Limits of Acceptable Use (LAU) stipulated.

Park Operations

Park operations are done through linking seven departmental arrangements.

Emphasis is focused on three departments: law enforcement, some aspects of outreach and tourism.

Law Enforcement

Law enforcement is charged with protection of resources and all matters of intelligence gathering, law enforcement including patrolling in and adjacent areas outside the Park. It also performs prosecution in a court of law. Rangers in the department are in different locations that are strategically placed for optimum deployment and policing. Currently, in addition to Headquarters, there are seven ranger posts (Mpululu, Magangwe, Jongomero, Madogoro, Lunda, Mafinga, and Isunkavyola). The last two are still temporary, because permanent structures are yet to be constructed. The GMP has identified one additional post in the north at Mkwambi, also yet to be in place.

These ranger posts range from 50 to more than 100 km (31 to more than 62 miles) from the Park Headquarters. In

ideal conditions, every ranger post should have a vehicle, high frequency transceiver (for long range communication), very high frequency radio—base/car set, hand-held set (for use during patrols), and global positioning (GPS) equipment for ease of movement in the bush. However, such items are not adequate as per requirements due to inadequate funding.

Tourism

The first commercial interest (towards tourism development) in the Park was the construction of the Ruaha River Camp (now Lodge, with 100 beds) by Foxtreks, Ltd., at Mwayangi in 1981, some 10 km (6 miles) upstream of the bridge. Three more tented camps are operating now; these are Mwagusi Safari Camp (24 beds), Jongomero Tented Camp (24 beds) and Upper Mdonya River Camp (24 beds). The tented camps close during rain season, between February/March and end of May, as there are not many visitors then.

Two facilities exist outside the Park boundary; these are Tandala tented camp, which is only 6 km (4 miles) off the boundary in the east and Tungamalenga camp in the village, 38 km (24 miles) from the Park Headquarters. There is a new upcoming investment close to the village.

The Park owns and runs Bandas (30 beds), Rest House (8 beds), and Hostel (35 beds for schools and organized/educational groups). Booking for these facilities is necessary, as vacancy is limited. Additionally, for visitors interested in camping, there are two public and three special campsites.

The Park can be visited year round (table 2) depending on interest and activities, however, the best times for game and sightseeing and walking safaris (both short and long), is between June and December (before the onset of rains). It is pleasing to the bird watchers to visit the Park at the end of December/January through mid-May when the migrant Abdims' and yellow-billed storks can be seen. Tourism has been increasing in terms of visitation yearly. Ruaha National Park is reached by air (scheduled flights available) or by road (public service about 7 to 8 hours from Dar es Salaam, on the coast), and from Arusha via locally registered tour operators.

Local Community Involvement and Benefit Sharing

The gazettement process of a national park starts with the local communities in the adjacent areas of the intended protected area. The communities are invited to give their opinion from the villages. The same system is adopted until the process is at the district and regional (equivalent to the province in other countries). During these stages, all matters that are forwarded by the communities are discussed and sorted out jointly between the regional and local government (conservation) and communities.

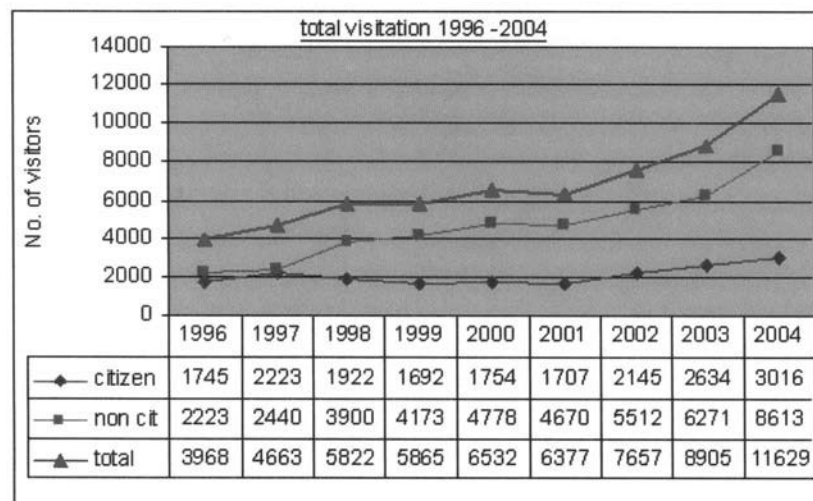
Having been agreed to by all concerned parties, the matter is forwarded to the responsible ministry with the relevant proposals, after which the same is verified with the local authorities. With the satisfaction of the ministry responsible, the document is prepared for the cabinet to discuss all matters including the legal issues, especially on the proposed boundaries, before the bill is tabled for the parliament.

In such an arrangement, there are normally no resentments, although on some occasions the process takes a long time to ensure that all things are done correctly in the first place, understanding the communities as among the key stakeholders.

Community Based Organization

Villages adjacent to Ruaha National Park have registered an association for the management and sustainable use of natural resources in their area. This organization (MBOMIPA—sustainable use of natural resources in Idodi & Pawaga divisions of the Iringa district) works under village governments and is supported jointly by the Wildlife division, TANAPA, and the district council. This set-up is an easy way for communities to take their responsibility towards resources management but at the same moment it serves as a fair way of realizing benefits accrued there from. There were 19 villages as founding members and requests are being received now from other villages to be enrolled as

Table 2—Tourist visitation in Ruaha National Park, 1996–2004.



members of this association after realization of the benefits that founding members enjoy.

Issues and Challenges: Focus on Ruaha National Park

The main management problems and concerns, which the General Management Plan has sought to address, are:

- **Biodiversity**—There are a scarcity of dry season surface water sources for all rivers, and rivers do flow on the surface during the rain season (mid-December through mid-May) but cease flowing on the surface during the dry season. Controlled use of surface water will maintain the flow, which is important for existing biodiversity.
- **Endangered species**—The Park is endowed with different species of flora and fauna, some of which are classified by IUCN as endangered (African hunting dog), endemic, threatened (cheetah, leopard, elephant), and rare. These require sound management initiatives for their survival. The core preservation zone is set to secure sensitive and fragile parts of the Park along the great Ruaha River.
- **Wildlife behavior**—Ensure naturalness of the Park through proper use of designated facilities so as to protect the animals from continuous disturbance in their habitats.
- **Vegetation and soils**—The Park aims to control usage of surface water to sustain vegetation and maintain natural processes.
- **Water resources**—Continuous surface and subsurface water recharge flows are critically important in ecological processes that require constant availability. The Park shall endeavor to control the usage to sustain other natural up-keep of the environment.
- **Visitor experience/limits of acceptable use**—These are set to ensure minimal impact of human activities to the Park resources for optimal visitor experiences.
- **Cultural and scenic resources**—The resources will have adequate protection for continued usage by the neighboring communities and tourists.
- **Neighboring communities**—The Park has negligible/low impact on quantity and quality of the water that runs through it. It is the obligation of the Park to ensure that this is continued for downstream users.
- **Park operations**—Strive to demarcate clearly all the Park boundary lines for ease of recognition by the communities and other stakeholders. Research conducted shall be geared to solving resource management issues. A comprehensive resources survey will be conducted to chart where these are placed in the Park.
- **Revenue and tourism**—Develop game viewing facilities for economical game drives, optimum enjoyment and benefit without impairing resources, and proper administration of revenue collection.
- **The Great Ruaha and Mzombe Rivers**—These two river systems partly form the boundary of the Park. Great Ruaha River forms the main water source for animals during the dry season (July through December). The Great Ruaha River ceases to flow during the dry season due to various uncontrolled human activities upstream of the Park boundary. The Park envisages working closely with other stakeholders in efforts aimed at sustaining continuous flows of the river throughout the year.

- **Unique interface on miombo and east African *Acacia/Commiphora* communities and riverine communities**—This is a unique interface of vegetation communities in the Park. It is aimed at protecting the species therein and prevention of introduction of species that are not common to the ecosystem.
- **Significant wildlife resources**—Elephants, sable, and roan antelopes, greater and lesser kudu are important wildlife species. Their abundance and unique coincidence in Ruaha is one of the Park's major attractions. The Park shall ensure protection of all wildlife in and around the Park.

Funding

The Park realizes only about 30 percent of its base budget in the form of revenue presented to the head office. In turn, the Park develops its budget like any other park. The budget for every park is jointly discussed in line with expected revenue. All the parks are regarded equally as they are all dealing with conservation, the organization's goal. The revenue collected is shared with all the parks and the head office for base costs and some funds are set for development programs and government tax. The Park receives assistance in various ways from different institutions including: Friends of Ruaha Society, Friends of Serengeti, The WILD Foundation, World Wide Fund for Nature (WWF, Tanzania program office), and the Wildlife Conservation Society.

Conclusion

The Park has the task of protecting resources while developing for tourism and ensuring that adjacent communities benefit from the revenues collected. There is always an issue on how to balance development for tourism with conservation. Amidst globalization, it may perhaps be inconceivable to maintain areas that do not generate enough funds to meet base budget requirements, however, the organization's main goal of sustainable conservation of resources and habitats remains. All parks are of equal status in terms of conservation, and needs, hence are rated on the same level no matter the amount of revenue collected.

Being in the southern part of the country, Ruaha is not well visited as compared to other parks in the north. On the other hand, this benefits the Park by being visited by tourists who are more interested in nature and who do not prefer seeing many tourist vehicles. It is a place for those who need enough time to get close, watch and appreciate nature.

Acknowledgments

I wish to extend my gratitude to Sue Stolberger and Rob Glen who put me and Ruaha National Park in contact with Mr. Michael Sweatman and The Wild Foundation.

I thank Mr. Michael Sweatman and Mr. Vance Martin (President of The Wild Foundation) for generously affording me the opportunity to attend this year's congress and meet with the world's conservation community. The Wild Foundation invited and paid for my two-way air ticket and living expenses. I thank you all.