The Impact of Structural Adjustment Programmes on the Natural Resource Base: The Case of Tourism Development

I.A.J. Mchallo[1]

Abstract

Decisions taken to allocate natural resources such as land, coastal beaches, wildlife and protected areas to tourism infrastructure development have not given due consideration to resource base capability (carrying capacity) to sustain the designated development or use.

In the period of implementing Structural Adjustment programmes (SAPs) in Tanzania, we have experienced increased allocation of protected areas (land) to lodge development, hotel construction on fragile beach areas or over utilization of the national parks. In the short term this development might seem profitable, but may have long term adverse effects on the resource base and the national economy.

SAPs encourage investment into the development of tourism infrastructure without a parallel package (in form of financing and policy/legislation enactment) for environmental safety. Thus many projects are executed without Environmental Impact Assessment (EIA), environmental monitoring and relevant mitigation measures, or at times expert opinions are overruled. As a consequence there are many incidences of resource abuse and resource over-use.

The paper examines the SAPs' policy instruments and assumptions that relate to the development of tourism and those that provide for natural resource utilization, and their shortcomings. It analyses the tools and style of implementation of SAPs to reveal the trends in resource base degradation. Examples and data are drawn from national parks, and coastal beach tourism projects development,

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[1]National Environment Management Council

to show that tourism development under SAPs infringes on its resource base, and therefore are environmentally unsustainable. A model is created to predict the eventuality of both the resource base degradation and tourism development, and suggest how this can be avoided.

1. Introduction

In Tanzania, there are three types of tourism practised:

(i) Nature-based tourism, i.e., enjoyment of scenery and wild life, which include walking, climbing, safari, hunting and fishing.
(ii) Coastal resorts tourism which depends on beaches, sea, and other water bodies for recreation and relaxation.
(iii) Cultural tourism which involves visiting historical sites, e.g. caves, monuments, etc.

This article deals mainly with nature-based tourism.

Tourism is one of Tanzania's foreign exchange earner. In 1993, a total of 230,000 tourists came to Tanzania, earning the country realise US $ 180.0 million. It has also encouraged investment through IPC in various tourist sectors, especially tourist hotels.

This article addresses the problem that despite being a good source of income, the government has not put enough safeguards and monitoring of its effects on its resource base. Emphasis is put on the significance of eco-tourism as against mass tourism.

Finally, the paper gives recommendations on the future development of tourism sector and the importance of striking a balance between environmental conservation and tourism development.

2. Structural Adjustment Policies

The concept of structural adjustment has its origins in the global economic events of 1973-1974 and the first oil shock. The 350 percent rise in oil prices hit developing country economies. In many countries, for example, the cost of oil imports rose to 1/5 of total exports. The ensuing 1974-1975 recession led to a 10 percent contraction in world trade and a sharp decline in export prices of many commodities, thus aggravating the ability of many developing countries to meet outstanding financial obligations (Reed, 1992).

The second oil shock of 1979 hiked oil prices to 130 percent, pushing the international financial system to the point of collapse, and again increasing the percentage of developing country exports needed to purchase oil. Further, from the late 1970s onward, most commodities exported by developing countries declined in value in relation to imported manufactured goods (Reed, 1992).

We can therefore say that, high interest rates, declining commodity prices, and internal and external imbalances in the industrialized societies created adverse economic conditions for the developing world by the beginning of the 1980s. In addition, developing countries were often beset by deeply rooted economic distortions and inefficiencies that had become widespread in their production, distribution and financial systems.

The IMF responded to the evolving crisis by widening the range of financing facilities available to member countries. By 1981, increased IMF disbursements represented 33 per cent of low-income developing countries current account deficits (Reed, 1992).

However, the IMF financial support could not stem the stagnation and decline sweeping much of the developing world. Dwindling financial reserves, uncontrolled inflation, rising debt obligations, declining productivity, declining export earning capacity, and growing social instability typified conditions in a number of countries. The World Bank decided to commit its own resources to help correct the perversive macro-economic imbalances.

3. SAPs in Tanzania

Tanzania was also engulfed in the web of the economic imbalances affecting the third world . In the mid-1970s, Tanzania's economy was beginning to suffer from its ambitious and increasingly unrealistic development policies (See Table 1).

Public sector revenue, even with high and rising foreign aid did not keep pace with the growth of public expenditures. Exports began to decline, thus constraining the capacity for imports. Distribution of goods within the country, including vital inputs for agriculture was stifled by bureaucratic red tape incurred through the massive nationalization of trade. Peasant farmers were unable to increase their productivity either collectively or individually. Two factors may have contributed to conceal the underlying imbalances in the economy in the mid 1970s.

Table 1: Selected economic indicators (% annual changes)

	1967-73	1974-78	1979-81	1982-84	1985-87
GDP per capita	2.5	-0.9	-1.1	-2.9	0.7
Inflation	8.5	15.1	23.2	30.6	33.1
Exports	3.6	-6.8	7.1	-16.7	6.0
Imports	3.6	2.8	14.3	-8.4	13.8
Ratio of net exports to GDP	-2:6	-9:6	-11:4	-7:1	-12:4
Ratio of debt to export	120:6	187:1	261:1	513:1	902:4

Source: World Bank Development Indicators, and Lele (1988).

(i) *Sharp increase in coffee prices.* As international coffee prices shot up in 1975 and 1976, Tanzania's coffee prices more than doubled during the two years. This windfall raised the value of exports and improved temporarily the balance of payments and raised incomes. The terms of trade improved by one-third during 1975-77.

(ii) *Boom in foreign aid.* Tanzania had already in the first part of the 1970s been a major recipient of foreign assistance. During 1974-80 the nominal value of such assistance, counted per capita, increased nearly fourfold (See Table 2).

However starting 1979, a series of negative external shocks unravelled the weaknesses of the Tanzanian economy. Coffee prices fell sharply just as the second oil shock occurred. The result was a dramatic decline in Tanzania's terms of trade, a decline by 40% during 1978-82. The upsurge in international interest rates and thus in Tanzania's external debt burden, added further to the strain. In addition, aid flows which reached a peak around 1980 and fell sharply in real per capita terms from 1981. On top of all these, Tanzania was dragged into a war with Uganda.

Table 2: Foreign aid to Tanzania

Year	Per capita net receipts (constant 1983 US$ prices	Year	Per capita net receipts (constant 1983 US$ prices
1973	18.1	1982	37.5
1974	18.5	1983	29.1
1975	30.2	1984	25.4
1976	29.7	1985	21.0
1977	33.2	1986	27.6
1978	33.5	1987	33.5
1979	42.0	1988	34.9
1980	42.9	1989	30.9
1981	44.7	1990	28.4

Source: World Bank, World Development Indicators and IMF.

Owing to these economic crises, and following the pressure from the World Bank and the International Monetary Fund (IMF), Tanzania embarked on measures of reviving the economy to arrest these economic distortions. It launched a number of economic programmes popularly known as Structural Adjustment Programmes SAPs. There have so far been four such programmes:

(i) National Economic Survival Programme (NESP).
(ii) Structural Adjustment Programme (SAP).
(iii) Economic Recovery Programme (ERP).
(iv) Economic and Social Action Programme (ESAP or ERP II).

3.1 National Economic Survival Programme (NESP)

This was a one-year programme and a major attempt by the Tanzania government launched in the 1981/82 fiscal year to deal with the economic

difficulties facing the country. The main objective of NESP was to mobilize domestic resources to the maximum possible. The main elements included:

(i) an aggressive export drive in order to increase substantially foreign exchange earnings,

(ii) judicious use of available foreign exchange so as to enhance future earning capacity as well as save on imports.

(iii) the elimination of food shortage through inexpensive small scale village irrigation projects, as well as the cultivation of drought-resistant food crops.

3.2 Structural Adjustment Programme (SAP)

This was a three-year programme (1982-1985) whose major objectives were to:

(i) Restructure future economic activity through better incentive systems, and revise priorities in government spending to achieve a more sustainable external balance and renewed growth.
(ii) Rationalize production structures to achieve increased capacity utilization improved manpower utilization and to reduce unproductive activities.
(iii) Improve planning and control mechanisms through more effective budgeting, monitoring, evaluation and enforcement of agreed priorities.

The economic theories behind SAP, were application of all the theories of production, i.e., changing of raw materials into finished goods, distribution of the goods and provision of services by using aids to trade like banking,insurance, etc. However, even after the implementation of SAP, results were that:

(i) Industrial output continued to decline.
(ii) Transport sector continued to face problems.
(iii) Social services (health, education and water supply) continued to deteriorate.
(iv) Natural resources and environment continued to deteriorate.

One of the main reasons for failure of SAP was lack of adequate foreign exchange inflow to finance importation of essentials and spare parts.

3.3 Economic Recovery Programme (ERP)

As a continuation and improvement of SAP the government launched Economic Recovery Programme, a three-year programme spanning from 1986 to 1989. The main goal was to enable Tanzania to achieve sustained growth in real incomes and welfare improvements. The major objectives were to:

(i) Increase the output of food and export crops through appropriate incentives for production, improving marketing structures, and increasing the resources available to agriculture.
(ii) Rehabilitate the physical infrastructure of the country in support of directly productive activities.
(iii) Increase capacity utilization in industry through the allocation of scarce foreign exchange to priority sectors and firms.
(iv) Restore internal and external balances by pursuing prudent fiscal, monetary and trade policies.

Strategies employed to achieve these objectives included:

(i) Exchange rate adjustment.
(ii) Raising producer prices and interest rates.
(iii) Reduction of credit expansion.
(iv) Improving efficiency in agriculture, industry and the economic infrastructure by providing adequate inputs and services.

Although ERP seemed to be comprehensive, it could not solve the economic problems because there was continued deterioration in the terms of trade due to the substantial decline in world coffee prices, and weak world prices for other Tanzanian agricultural exports. These reduced export earnings and widened the current account deficit. Prices of imports continued to rise as opposed to the prices of exports. Devaluation of the shilling continued while the agricultural economy could not respond to expectations made by devaluation. Essential and luxury goods continued to be imported since they could not be manufactured in the country.

3.4 Economic and Social Action Programme (ESAP or ERP II)

This was implemented in 1989/90 to 1991/92 as the successor to the ERP. Market liberalisation measures were gradually extended to achieve the same macro-economic goals set under the ERP but greater emphasis was placed on alleviating the social costs of adjustment. Decontrol of prices has been gradual over time and price decontrolled goods were reduced from 72 product categories in 1984 to only two in mid 1991 (World Bank, 1991). Liberalisation of the foreign exchange market and banking sector also began in 1992 under this programme. IMF backing for the programme continued after July 1991 with the approval of an enhanced structural adjustment facility credit of SDR 181.9m over the period of three years. Thus the process of gradual economic liberalisation has continued without interruption to the present.

ESAP has not succeeded fully since, social services have continued to deteriorate, natural resources and environment have continued to be degraded, and the whole economy is still heavily dependent on foreign donors.

From an environmental point of view, it is worth noting that a very significant aspect was not incorporated in the menu of the SAP policies, i.e., environmental dimensions. Actually it is clearly indicated in the SAP document, that "SAPs do not include natural resources and tourism" (SAP, 1982). Thus, in implementing SAPs in Tanzania, some important environmental considerations were not taken into account. Tourism development is the case in point.

4. SAPs and Tourism Development

Tourism as an industry began in Tanzania since the colonial days. The country's superb and vast game reserves cover nearly one-third of its total area. There are the world's most dramatic and most densely populated natural parks and game sanctuaries of the "Northern circuit": Serengeti (about 15,000 sq. km); Ngorongoro crater (610m deep and 20km in diameter); Tarangire, Manyara, and the Arusha National Park with its wonderful views of Mounts Meru and Kilimanjaro.

The "Southern circuit" embraces the well-known Selous game reserve and the less well-known Mikumi. There are also Ruaha National Park and the shore of Lake Malawi and Lake Tanganyika. One of the most spectacular game parks in the world is in the Mahale mountains on Lake Tanganyika. There are also 800km Indian ocean coastline, the "Spice Islands" of Zanzibar, Pemba, and

Mafia; prehistoric sites, rock paintings, ancient towns, together with the folklore and artistry of some 120 tribes which offer the richest of African tapestries for international visitors.

The government's policy is to encourage private investment in the tourist industry, both privately and also through joint ventures. "Up-market" tourist developments are favoured. On the basis of a five-year tourism development plan, the government hopes to substantially rehabilitate and improve the country's tourism related physical infrastructure and services, and undertake an extensive promotion campaign for the purpose of attracting international tourism to Tanzania. It aims at attracting 500,000 tourists, earning the country $ US 500 million per year by the year 2,000 (UNIDO; 1992).

The Tanzania government considers private investment (both foreign and local) as the leading engine of growth. It has therefore, taken steps to provide a macro-economic framework and an enabling environment for private investors to operate. In this connection the private sector is being assigned an increasing role in Tanzania's overall development, a policy that has been reinforced through the introduction of several recent measures.

In connection with economic liberalization and the government's policy to encourage private investments in the tourism industry, the government embarked upon promoting tourism and encouraging investment in tourism industry e.g. construction of hotels in the parks and coastal beaches.

A number of investors interested in tourism industry have been issued with tourist clearances to invest without consultation with the Conservation Institutions e.g. TANAPA. Therefore they come with predetermined sites on where to develop their infrastructure. Many of these development projects have not been subjected to Environmental Impact Assessment (EIA). Where EIA has been carried out, there has not been sufficient public participation, monitoring and auditing plans to ensure compliance to intended mitigation or standards. Below is a few case studies.

4.1 Tarangire National Park

4.1.1 Description

The Tarangire National Park comprises a 2,600 km^2 portion of the Tarangire ecosystem. The entire ecosystem encompasses approximately, 20,500 km^2 of

the Masai Steppe. The park is located in an arid Acacia savannah belt 118 km south of Arusha east of the Great North Road within the administrative districts of Babati, Monduli, Kiteto, Simanjiro and Kondoa.

Tarangire National Park is the fourth largest park in Tanzania with one of the highest density of elephants of any park in the country. It is part of Tanzania's popular northern tourist circuit that includes Arusha, Mt. Kilimanjaro, L. Manyara, and Serengeti National Parks as well as Ngorongoro Conservation Area. One unique feature is the Tarangire River that flows through the centre of the national park from south to north/north-west, and empties its water in the Tarangire ecosystem.

The park is endowed with wetlands (the Silale, Gursi, Larmakare, and Nguse Lororoboi) which act as sponges by supplying Tarangire River with water during dry periods. Because of availability of water, the park has a high concentration and variety of wildlife in the dry season.

Tarangire National Park is a dry season refuge for a majority of the migratory wildlife in the Tarangire ecosystem. The park is very rich in mammals and birds. It is estimated that during the dry season total biomass of large mammals inside the park is well in excess of 35 metric tons/km^2. It has more than 550 species of birds. Particularly rich bird life occurs in the open Acacia woodlands, in and along the wetlands (Silale swamp), and in the flood plain of Tarangire river.

Vegetation comprises Acacia and Commiphora species with approximately 10 vegetation types. The significance of the park is that it:

(a) possesses, second only to Serengeti/Ngorongoro ecosystem, the highest concentration of wildlife during the dry season of any area in Tanzania (Lamprey 1964);

(b) is one of the few protected areas in Tanzania with a hydrological regime that ensures a permanent year round water source for the park's most exceptional resources - the Tarangire River;

(c) Is the only national park in Tanzania's northern circuit where one can easily view a large concentration of elephants during almost any time of the year.

(d) Is one of the few protected area in Tanzania where one can easily see concentrations of onyx.

(e) possesses within its acacia habitat one of the highest known diversity of breeding birds in a single vegetation type (Moreau, 1966).

(f) provides a landscape with a distinctive combination and balance of openness for game viewing and a mosaic of habitats and vegetative cover types that provide for both spectacular scenery and species diversity.

(g) has an uninterrupted history as an area with a significant variety and concentration of wildlife dating back 9000 years as evidenced by the prehistoric pictographs at Kisesse, Kolo, and Pahi (located approximately 40 kilometers southwest of the park boundary), depicting rhinoceros, giraffe, roan antelope, elephant, buffalo, hyena, ostrich, warthog, zebra, reedbuck kudu, onyx, snakes, and crocodiles.

(h) has achieved a reputation of being uncrowded and unspoiled.

4.1.2 Visitation

Trend of visitors to the park for the past 10 years indicates that tourism has been on the increase (See Table 3).

Table 3: Visits to the Tarangire National Park

Year	No. of Tourist	Year	No. of Tourist
1981	7201	1987	10606
1982	8755	1988	12507
1983	6540	1989	15991
1984	7169	1990	17698
1985	6176	1991	19294
1986	7784	1992	2702
		1993	30320

Source: Bureau of Statistics 1994.

Economic liberalization together with constant devaluation of the Tsh. are among of the factors that might have contributed to the increase of the visitors.

4.1.3 Hotel Projects in the Park

The Arusha based consolidated SOPA Company was in 1990 granted a lease to construct a 150 bed two-storey hotel in the Park. It was also leased to run 10 special camp sites, one permanent tented lodge and another permanent tented camp. The initial plan of the promoters was to construct the lodge in the riverine grassland near to river Tarangire. However, following release of the Management Zone Plan (MZP) by TANAPA, which prohibits any development in the area, the developers were offered another alternative site away from the river but within the national park.

The MZP focuses on diversity, providing for a wide range of "appropriate" visitor experiences consistent with the policies, acts, ordinances and management objectives. For management planning, purposes, the park is divided into 4 zones:

(i) The Cone Preservation Zone
(ii) Conservation General Use Zone
(iii) Semi-Wilderness Zone
(iv) Wilderness Zone

Location for the proposed SOPA Lodge is in the Conservation General Use Zone.

4.1.4 Limits of Acceptable Use

MZP does not attempt to determine a "carrying capacity", i.e., of how much use and development the area can tolerate. Rather, it requires that "limits of acceptable use" (LAU) be determined. The LAU system represents a reformulation of the carrying capacity concept, with primary emphasis on the conditions (both physical and social) desired in the area, rather than on the maximum amount of use and development the area can tolerate.

The LAU focused on the maximum number of beds established for those zones designated for overnight stays, and the number of vehicles per kilometer in the most frequented zone of the park. The LAU was determined using the best available information to achieve a desired condition - an appropriate balance between preservation and tourism use/development. Accordingly, limits of acceptable use have been set for each zone.

In the Core Preservation Zone, the quality of the overall visitor experience for the Park will be based on the number of vehicles per kilometer during a

peak season day on the existing described roads (east and west loop road along both sides of the Tarangire River and the ridge road overlooking Silale Swamp within the Core Preservation Zone).

The MZP Action states that estimated number of vehicles per km on a peak season day on the existing described roads is approximately 1 vehicle per 1.6 kilometers. However, the actual existing situation estimated number of vehicles per km on a peak season day on the existing described roads is approximately 1 vehicle per 2.7 kilometers. Calculations of the number of vehicles per km for existing conditions included the number of beds and the estimates of the number of day users on a parkwide basis.

Assume that on a peak season, the 150-bed Sopa Lodge will be operating at full capacity, i.e., 150 visitors, and that they will visit the various zones; and supposing that 75% of them will be willing to head to the Core Preservation Zone since it has the largest concentration of animals i.e. about 113. Normally they will be using mini-buses carrying 6 visitors each. Thus we arrive at a situation of having 19 vehicles heading towards the same destination. Such a number of tourist vehicles at a time spoils the natural set-up of a park, thus spoiling the solitude and prestinity of a natural area. In case they came across some of the most interesting animal species, e.g., cheetah, lion, or rhino, such a big group of visitors per one attraction is a menace to the animal.

It is not easy for the drivers to follow the driving regulations of the zone plans. Some of them do not have regard to wildlife, they are mainly interested in impressing their clients and are prepared to break Park laws. There are instances where drivers have been seen chasing cheetah, leopard or lions, off-road driving, and doing other illegal activities, e.g., shouting to animals.

Also, if one assumes that, on a peak season, one fine morning between 8.00 to 9.00 am, the visitors get into the vehicles to the Core Preservation Zone. In this case we will have 150 visitors, and taking 6 visitors per vehicle, we will have about 25 vehicles. The number of vehicles is quite high contrary to the MZP. Allowing such a number of vehicles in the Park has serious effects, such as:

(a) Degradation of the road which can easily be damaged due to over-utilization by the vehicles.

(b) Visitor pressure exceeds the tolerance of the animals, causing stress and therefore interfering with the physiological and behaviourial well-

being of the animals, which might reduce the breeding success.

(c) Visitors' pressure may cause animals and birds to keep constantly on the move, thereby making them occupy less favourable areas and causing high egg and young mortality rate in unattended nests.

(d) Pollution (dust and fumes) which has negative effects to the ecosystem and the biodiversity within it.

(e) Noise which has a disturbing effect to the wildlife.

The national park has its value. Economic valuation can demonstrate and measure economic values, and also find ways to measure the value:

The value of a given resource - Total Economic Value (TEV)
TEV = Direct use value + Indirect use value + Option value + Existence value

Further scientific studies may be needed to go into the details of such calculations. However, the point here is that, investing Tsh. *x* millions in the lodge in order to generate revenue in forex but with the possibility of ruining the park could be a loss as against not constructing the lodge at all "with" or "without" the project concept.

According to the Zone plan, managing the park can be more beneficial than the construction of the lodge in that:

1. Apart from the tourists, the activities alone in the hotel are enough to create disturbance to the wildlife. The movement of the workers of the hotel—whether they stay at the hotel or away—causes noise pollution which has a disturbing effect to the animals, and therefore their behavioral well being which might affect the reproduction trend.

2. Construction of such a big hotel in the centre of a national park is interfering with the ecological balance of that ecosystem which affect the animals.

4.2 Kilimanjaro National Park

4.2.1 Description

Mt. Kilimanjaro, the highest mountain in Africa and one of the world's largest free standing mountains, is located 330 kilometers south of the equator on the

northern boundary of Tanzania. It is Africa's most scenic mountain, and the view of its majestic, snow capped peak is recognized throughout the world. The mountain is a natural focal point for all of East Africa, and a source of water for the surrounding areas.

The ecosystem of mt. Kilimanjaro is a succession of distinct vegetation zones that form belts around the mountain: lower slopes, montane forest; health and moorland; alpine desert; and summit. Each zone is characterized by the types of plants best adapted to the set of environmental conditions at that altitude, particularly the range of temperatures and the amount of rainfall. Agriculture and settlement on the mountains lower slopes have replaced the natural vegetation in what used to be a lower montane forest.

Kilimanjaro National Park comprises the area (75,353 hectares) above the 2,700 meter contour. Kilimanjaro Forest Reserve surrounds the park and comprises the area (92,906 hectares excluding the plantations and the Half Mile Strip) between the 1,820 meter contour and the 2,700 meter contour. The park also includes six right-of-way corridors through the forest reserve. It is located in Tanzania's northern tourist circuit of the parks.

The significance of the mountain lies in the fact that:

(a) Kilimanjaro is one of the few mountain ecosystems located near the equator that contains large expanses of ice glaciers. It has the greatest extent of alpine desert of all the glaciated equatorial mountains in East Africa.

(b) The montane forest on Mt. Kilimanjaro is one of the most important water catchment areas in all of Tanzania.

(c) The convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) identifies 11 species of fauna believed to be present in the Mt. Kilimanjaro eco-system.

4.2.2 Visitation

The number of tourists climbing Kilimanjaro has been increasing steadily over the past 10 years.

Climbing and hiking are the primary activities on the mountain. Most hikers spend approximately 4 nights and 5 days on the mountain. Although there are a number of options for climbing Mt. Kilimanjaro, 91 per cent of all hikers use

Table 4: Visits to the Kilimanjaro National Park

Year	No. of Tourist	Year	No. of Tourist
1981	7032	1987	10059
1982	6901	1988	10563
1983	6954	1989	12679
1984	9391	1990	11622
1985	8898	1991	11520
1986	8933	1992	11408
		1993	11813

Source: Bureau of Statistics 1994.

the Marangu trail, which can be climbed without any special equipment. Less used trails are Rongai, Mweka, Umbwe, Machame, Shira Plateau, Summit circuits, and Mawenzi Peak.

4.1.3 Limits of Acceptable Use

The Marangu "tourist" route's original recommended carrying capacity, was not to exceed 5,000 climbers per year, with 10,000 porters (ratio of 2 porters to 1 climber), hence making a total of 15,000 visitors (NORAD, 1991). This recommendation has now been exceeded continuously for the last 10 years. Today, the theoretical carrying capacity of the Marangu Trail (a maximum of 55 summit bound hikers entering the trail per day) would be approximately 20,000 climbers per year, and thus with 40,000 porters, making a total of 60,000 people per year on the mountain. As a result the facilities, the trail and the mountain resources themselves are being severely stressed and damaged by this high level of use. The fact that the trail is not engineered, and the lack of trail rehabilitation and facility maintenance over time has greatly contributed to, and served to accelerate the deterioration of the resources.

The Management Plan does not attempt to determine a "carrying capacity" of how much use the area can tolerate. Rather it requires that a "limits of acceptable use" (LAU) management program be implemented.

The management zones set by the general management plan for Kilimanjaro National Park are 8 with a total of 168,259 hectares. Taking the example of the "Intensive Use Hiking Zone - 2,700 Marangu Trail", this zone will comprise the Marangu trail and all permanent facilities associated with the redesigned Marangu parking area and the upgraded hut complexes located along the marangu trail. This plan will establish the limits of acceptable use alone for the Marangu route not to exceed 58 climbers per day and 10,500 climbers per year.

It is worth to strike a balance between utilisation of Mt. Kilimanjaro and its preservation, bearing in mind the value of rich biodiversity in flora and fauna which is high when quantified.

4.3 Beach Hotels

Following the Tanzania government's drive to promote investment in all sectors of the economy, a number of business promoters have been offered title deeds to construct tourist hotels along the beaches on the coastline, in addition to about 7 existing ones (See Table 4)

Table 4: Major Proposed Beach Hotels

Name	Total Investment (Tsh mill)	Total Employment	Occupancy (Bed Capacity)
1. Deco-Art Co. Ltd. White Sands	2,500.0	81	
2. Buyuni Co. Ltd. (AMADORI)	2,038.8	100	
3. African Village	277.9	80	
4. Whet Company Ltd. (Tourist resort hotel)	2,582.0	93	
5. Kimbiji Beach Resort	19,000.0	363	
6. Bagamoyo Beach Resort	1,300.0	60	

Source: MTNRE: Statistics - 1994.

Some scientific studies have been carried out on the coastline on various subjects, but only little studies so far have dwelt on the "carrying capacity" concept. Although the beautiful beaches have to be utilised in order to tap the much needed foreign currency, this has to be done in a sustainable manner. The coastline, as an environmental asset, has its limits of providing services beyond which it becomes overloaded and prone to destruction.

From Table 4, it is clear that hotels with investments of over Tsh. 2,000m are big structures which will have approximately over 100 bed capacity. Assuming that on a peak season, about 70% of the beach hotels in Dar es Salaam are operating at full capacity. We have about 700 tourists who will be having leisure time along the beaches. The peak season continues for a month or two. Therefore we are having a situation where about 700 people are utilising the beach for 30-60 days. Such a big number is likely to infringe on the coastline.

It is not the aim of this paper to establish that such a number of tourists automatically damage the beaches. However, it worth noting that tourists and visitors to an area can cause a visual deterioration of its quality, and therefore environmental concerns have to be taken into account regarding such developments.

As mentioned earlier that the "carrying capacity dimensions" are here inadequate, we could bank on a number of carrying capacity guidelines from the Tourism Council of South Pacific that exist to ensure a reasonable quality of experience (see Table 5).

Table 5: Carrying Capacity Dimensions

AreaArea	Recommended carrying capacity
Beach	10-15 square meters per person
Small boats	2-6 per hectare
Sailing boats	1-2 per hectare
Water-skiing	1 boat for every 2-4 hectares
Low density picnicking	40-100 people per hectare

Source: Tourism Guidelines in the South Pacific

Significant environmental effects likely to be caused by tourists in coastal resorts —particularly when the carrying capacity is exceeded—are loss of wet lands, lagoons; destruction of natural coastal defence-cliffs, reefs, shallows, sand banks; interference with beach formation, long shore drift; beach erosion; oil spillage from motor boats, discharge of untreated sewage disposal of litter and other waste.

An argument is open for discussion that if the environmental services provided by the coastline (e.g. the significance of coral reefs and wetlands) could be quantified or measured in monetary terms vis-a-vis construction of hotels, an appropriate piece of advice could be given to decision-makers.

5. Sustainable Use of the Resource Base

Sustainability requires a balanced relationship between human needs and the finite size and resource capacity of the earth. Human welfare must be pursued within the natural environment's capacity to tolerate, support and such use. Present levels of use are excessive and unsustainable. Urgent corrective action is therefore needed. Globally speaking, the notion of sustainability has three key components: the environment, economic growth, and human welfare (WWF, 1993).

Sustainable development is defined by IUCN, UNEP and WWF as "improving the quality of human life within the carrying capacity of supporting ecosystems." Sustainable development must therefore encompass environmental, social and economic factors.

Sustainable resource use is the method by which the concept of sustainable development is applied to the use of natural resources, renewable and non-renewable. Sustainable resource use could be defined as the "use of natural resources that always remains within the limits of environmental capacity and on that basis, meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (WWF, 1993).

With regard to tourism development, sustainable resource use is an important method that could be employed to ensure that the resource base, e.g., the national parks, beaches, etc., are utilized sustainably. One way of ensuring this is through discouraging mass/conventional tourism and instead encourage eco-tourism.

Eco-tourism may be defined as nature tourism that involves travelling to relatively undisturbed areas with the objective of admiring, studying or enjoying

the scenery and its wild plants and animals, as well as any cultural features found there. Eco-tourists have the opportunity of exploring deep nature in a way enabling them eventually to acquire an awareness and insight of the natural environment, together with its cultural aspects that ultimately tunes them to appreciate conservation issues.

On the contrary, mass/conventional tourism involves visiting a natural area, e.g., a beach, lake or forest out of interest in activities that have little or nothing to do with a true concern for nature or ecology of the site (e.g. jogging, sun bathing picnicking, or simply relaxing).

It could be argued that until recently mass tourism has been in practice in Tanzania. For example, the government's target of increasing the number of tourists to 500, 000 by the year 2000 is undoubtedly encouraging mass tourism. One could ask: when this target was being set, were questions on impact taken into account?

The trade liberalization policy prompted influx of investors especially in tourist areas—lodges and tented camps. Also we have witnessed mushrooming of tour operators for air charter companies, ground transportation, and other tour operations. These activities have had severe negative effects on the resource base upon which tourism depends, e.g., degradation of protected areas habitats, devegetation, and harassment to wildlife.

Tanzania National Parks' (TANAPA) move of preparing the General Management Plans (GMP) is a timely action and clearly indicates the determination for eco-tourism. Hand in hand with the GMP all projects should be subjected to Environmental Impact Assessment (EIA) to ensure sustainable resource use. Figure 1 in Appendix 1 shows the model of sustainability.

EIA is a narrative description of the environment in which a proposed development is to be carried out, including specific description of those elements of the existing environment which will be affected by the proposed development; and determines mitigation measures.

6. Conclusion

It has been seen clearly that the structural adjustment programmes encourage fast cash-making investments, and that social and environmental considerations were not included in the menu of the package. SAPs' emphasis has always been on quick generation of hard currency to pay back World Bank loans.

While the Tanzania government has been looking at tourism as one of its

biggest foreign exchange earner, it has under-estimated the same resource base upon which tourism depends. Statistical data have shown that as the government is implementing SAPs to revive the economy and service debt the number of tourists has been increasing steadily, hand in hand with mushrooming of tourist hotels.

The major centres of attraction for tourists are also areas of global significance physically and socially, e.g., the national parks or Mount Kilimanjaro which is a site of world heritage. These are areas that are to be safeguarded at all costs. If they are to be utilised, it should be in a rational and sustainable way.

It is therefore advised that, while the government is making efforts to revive the economy, significant issues like environmental ones should be reflected in the menu of policies geared towards economic development. An important tool that should be used and integrated into the policies is Environmental Impact Assessment (EIA), which will ensure that potential environmental problems are identified and solved at an early stage in any development ventures.

For future sustainable development of the country's tourism industry, it is therefore recommended that:

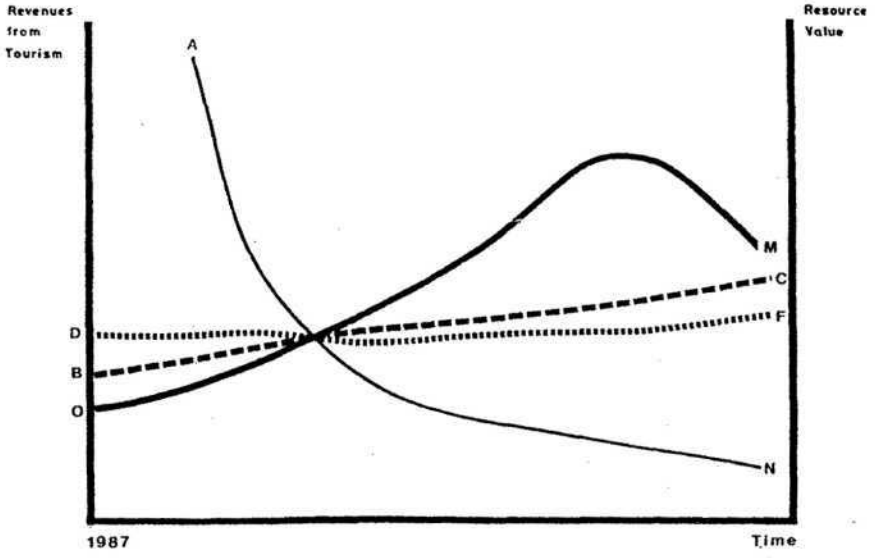
(a) There should be proper coordination between the government authorities concerned with tourism development, e.g., the Investment Promotion Centre (IPC) and TANAPA. There should be appropriate procedures to follow on the part of investors regarding these institutions.

(b) Environmental Impact Assessment (EIA) should be mandatory and incorporated in the menu of policies. Also ecological economic analysis has to be reflected in the review of EIA studies.

(c) Investors should adhere to General Management Plans, GMP/EIA Lease/Development Consideration Packages (LDCP) and Guidelines for preparation of EIA studies prepared by TANAPA.

(d) Eco-tourism should be encouraged and promoted.

APPENDIX 1



OM: Revenue without economic considerations
AN: Resource value without environmental considerations
BC: Revenue with environmental considerations
DF: Resource value with environmental considerations

Fig. 1: Theoretical Model of Sustainability

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