DRAFT REPORT

Closing Corridors:

Impact of Policy, Practices and Privatisation on Wildlife movements in the Tarangire-Manyara Area

Study for EPIQ Tanzania
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Abbreviations and Acronyms

AWF	*African Wildlife Foundation*
CBNRM	*Community Based Natural Resources Management*
CCS	*Community Conservation Services*
CCSC	*Community Conservation Support Center*
EPIQ	*Environmental Policy and Institutional Strengthening Indefinite Quantity contract - the Global Bureau of USAID Washington*
FZS	*Frankfurt Zoological Society*
GCA	*Game Controlled Area*
GCAs	*Game Controlled Areas*
GR	*Game Reserve*
IMF	*International Monetary Fund*
JKT	*Jeshi la Kujenga Taifa (National Service)*
NAFCO	*National Food Corporation*
NARCO	*National Ranching Company*
NCAA	*Ngorongoro Conservation Area Authority*
NGO	*Non Governmental Organisation*
NGOs	*Non Governmental Organisations*
NLUPC	*National Land Use Planning Commission*
NP	*National Park*
PSRC	*Parastatal Sector Reform Commission*
SEMP	*Serengeti Ecological Monitoring Programme*
SIDA	*Swedish International Development Agency*
SO team	*Strategic Objective team*
SWRI	*Serengeti Wildlife Research Institute*
TALIRO	*Tanzania Livestock Reseach Organisation*
TANAPA	*Tanzania National Parks*
TCP	*Tarangire Conservation Project*
TWCM	*Tanzania Wildlife Conservation Monitoring*
UNESCO	*United Nations Education, Scientific and Cultural Organisation*
USAID	*United States Agency for International Development*
WB	*World Bank*
WD	*Wildlife Division*
WMA	*Wildlife Management Area*
WMAs	*Wildlife Management Areas*

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While expressing our gratitude for all those who contributed time, materials and ideas for this study, the team takes full responsibility for any errors of fact or interpretation (and we know there are some) that have escaped our scrutiny. All opinions and suggestions in the report belong to the authors, and do not necessarily represent those of EPIQ, USAID, or their partners.

EXECUTIVE SUMMARY

At the request of several partner agencies, EPIQ Tanzania commissioned a study on the impact that planned privatization of parastatals and possible divestment of other government-held properties would have on wildlife corridors in the Tarangire-Lake Manyara area. The resulting Scope of Work requires that the identified properties be put in priority of their conservation importance, that an assessment be given of how various possible future land uses will affect wildlife movements, and that the study team suggest next steps that might be taken.

The study was later enlarged slightly to give secondary consideration to impacts of other changes in land use near Tarangire National Park and some attention to a large parastatal

property that lies between Arusha and Kilimanjaro National Parks, the West Kilimanjaro ranch. (Please refer to Figure 1).

Three consultants were engaged in February-March 1998, two for 21 days and one for twelve days. The study team interviewed stakeholders and other knowledgeable people in Dar es Salaam, Arusha and in the study areas. Team members reviewed all pertinent documents they could obtain; however, some were beyond their short term grasp, as were some of key people they had hoped to interview.

In order to understand the potential impacts that privatization or other divestment present, the study examined some of the relevant policy frameworks in their historic, contemporary and proposed iterations. As discussed in the main text, some of these policies could be interpreted to have the effect of precluding, or at least significantly affecting, conditions of privatization of certain properties in question.

The team found that practices on the ground may have an equal if not greater impact on wildlife movement than policies or privatization in general. It is true that coherent, wildlife-friendly policies are critical, and that privatization decisions have great bearing in the struggle for sustainable natural resource management, including wildlife movements beyond protected areas. Yet, it is in actual practices that impact takes place, whether the actors are governmental officials, private corporations or the citizenry at large in their rigorous application, honest adherence, partial distortion, or simple evasion of laws, regulations, professional responsibilities and social norms. Thus, the title of this report emphasizes the interplay of policy, practice and privatization on closing corridors to wildlife movement.

From the data that the team collected, it appears three key properties in the so-called Tarangire-Lake Manyara biotic corridor may soon change hands and perhaps change land uses, or already have begun to experience such changes. All are important to maintaining wildlife movement in this vital area. Of the three, the Manyara ranch formerly owned by the National Ranching Company, NARCO, seems to be the single most consequential for wildlife movement. It provides access from the northern end of Tarangire National Park for wildlife moving into two areas: either around the north end of Lake Manyara into Lake Manyara National Park, or past Mtu wa Mbu town towards areas further north, potentially including the Ngorongoro Conservation Area.

Lack of reliable data prevented the study team from making a detailed analysis of the National Service (JKT) base property that lies near, and may adjoin, the Manyara ranch just north of the Makuyuni-Mtu wa Mbu road. It is known that some of the buildings on the JKT base were turned into a public secondary boys boarding school in 1996, but the intended use or ownership of the lands were not ascertained during this study. It appears this is an important property for certain wildlife movements.

The third property, the Minjingu Phosphate Mine, is ranked third priority. This is because the movement of wildlife though or around this property, and from this area around the south end of Lake Manyara, may already be largely or completely cut off by human habitation south of Lake Manyara National Park. Opinions vary, as they do for much of the data collected for this study.

Some sources report that the National Service has essentially left its Makuyuni base without announcing plans for the future. The Minjingu Phosphate Mine is closed with no on-site paid personnel. For both properties there would appear to be realistic concerns that squatters will move into these readily accessible lands for agricultural purposes which would conflict with free passage of animals and with pastoral use.

Apart from the Tarangire-Lake Manyara area, a second northern zone NARCO property, the West Kilimanjaro Ranch is located northeast of Arusha town. Adjacent to it is a smaller

property of the Tanzania Livestock Research Organization, TALIRO. Despite the incursion of agricultural and pastoral squatters on this NARCO property, and expansion of agriculture between it and Mt Meru, the West Kilimanjaro ranch still appears to offer a vital wildlife link between that park to its south and dispersal areas to its north as far as Kenya's Amboseli National Park. There is also round-about access to Kilimanjaro National Park via the designated Kilimanjaro-Amboseli wildlife corridor.

From the Parastatal Sector Reform Commission, PSRC, it was learned that the two NARCO ranches in question are slated for privatization, with feasibility studies indicating viability of ranching and tourism. The projected dates and specific process for tendering or other divestment procedure was not disclosed. The PSRC acknowledged that it has received a number of unsolicited proposals for these properties and that it has fallen behind schedule for privatizing them. It was stressed by PSRC that privatization of a parastatal was intended to 'revive the company' by transferring ownership to private entrepreneurs.

The question of impact on wildlife movements due to changes in land ownership, and thus potential changes in land use, can only be answered in a general way. Over the last 40 years or more, seasonal use by Maasai pastoralists coupled with low-intensity cattle grazing by NARCO and preceding owners has permitted continued movement of wildlife on Manyara ranch, although various sources note a growing amount of poaching and charcoal burning on ranch property in recent years.

A similar situation is described on the West Kilimanjaro ranch, where destructive practices and squatter incursion is reportedly much worse. Less is known about impacts on wildlife movement of current land uses on the other two Tarangire-Lake Manyara properties, but some resource abuses were alleged on the Minjingu Mine property.

Discussions of divestment or joint ventures go back at least eight years for the NARCO ranches. During this period new investment was minimal, management was custodial at best, and both vegetation and wildlife have been exploited at unsustainable levels. Restoring the damage from tree loss, cultivation of grasslands, overgrazing and illegal hunting will take decades, and may be too difficult, expensive or otherwise impractical to undertake in some areas. All those interested in these properties, whether from conservation, development or privatization perspectives, should be concerned for the depreciation of resources and property values that has occurred in the protracted period of transition.

If, as a result of privatization or other forms of divestiture, the Manyara ranch, JKT base, Minjingu mine or the West Kilimanjaro ranch properties were used for modern ranching or intensive agricultural purposes in the future, the impact on wildlife movement could be extremely negative, as these land uses are widely considered incompatible. If these properties become hunting preserves that could be less harmful, but only if quotas and other standards were strictly respected, which is sadly not the case in the current hunting block system according to many sources. Benign land uses in terms of maintaining wildlife movement on these properties would be non-consumptive forms of tourism and seasonal grazing by cattle of the former customary land owners.

Opposing interpretations, contradicting policy provisions, and overlapping authorities prevent straight forward analysis of this privatization situation. These complexities and ambiguities overwhelmed attempts at prognostication, However, it does seem that the process is amenable to ideas and initiative. from interested parties.

On one hand, bold and innovative proposals by key stakeholders, such as the conservation community and local governments including the pastoralist villages concerned, could potentially sway the entire process. On the other hand, reports of recent moves by foreign investors suggest that an outcome much less favorable to maintenance of wildlife movement is also possible. Once again, it is the practice as much as the policies that will determine the end

result of privatization. For better or worse, the practice is in the hands of those ready, willing and able to act. In brief, there is no reason to be complacent, or to assume that public debate or other opportunities to influence these matters will be offered before decisions are made.

The Next Steps section of this report suggests some avenues of action. Relatively low levels of investment would be required to: set up a monitoring system for the properties in question to track and publicize illegal and abusive practices; lobby government to have environmental conditions put on privatization of properties that include wildlife corridors; and conduct and publish a thorough review of the legal and policy basis that could be used to oppose privatization agreements deleterious to Tanzanian wildlife in general and wildlife movement in particular, among a dozen other suggestions.

A completely different kind of action should also be considered at a higher level of investment in time and financial resources: the surest way to secure the long term use of these properties for conservation purposes is to enter the privatization process directly and make a bid for the properties. To explore this option, a coalition of stakeholders, possibly organized in the form of a Tanzanian land trust, would need to move with all due haste to forestall other bids, convince PSRC and other government authorities of the financial viability of this vision, and raise the necessary funds.

These are only ideas. The study team shied away from making specific recommendations of what others should do. This is not for lack of strong convictions or lack of concern for the gravity of the situation, but rather because the team's database simply does not support pronouncement of final solutions. A lot more needs to be learned -- and learned rather quickly -- in order to have a firm basis for action to ensure that wildlife movement is maintained in the Tarangire-Lake Manyara ecosystem, and indeed in the entire northern Tanzania zone.

Apart from the issues of formal privatization of parastatal properties, the study team was asked to take a look, albeit a brief one, at other land use changes near Tarangire National Park that may be affecting wildlife movements. The team found that an informal kind of 'privatization' is well underway, a land grabbing frenzy that has dramatically changed the ownership and land use of Lolkisale and parts on Simanjiro in less than a decade. This has already closed a main wildlife corridor recorded in the 1960s, and is reducing flows in other places as well.

For the West Kilimanjaro area, little if any wildlife movement now occurs between the Arusha and Kilimanjaro National Parks due to dense human population and agricultural land use to the west and south of Mt. Kilimanjaro's gazetted boundaries. For similar reasons, wildlife dispersal from Arusha National Park north into the West Kilimanjaro ranch and beyond has been drastically reduced in recent years. That park may soon become a biological island, at least in terms of certain large mammal populations.

Without protection of the wildlife corridors and dispersal areas, isolation will be follow for other Tanzanian national parks. This would likely lead to further local extinctions and progressive loss of population for migrating species that spend much of the year outside of the national parks and whose numbers could not be maintained on park lands alone. Thus, the corridors are key to the entire biological system.

A series of actions have been suggested. The urgency is certainly clear. Whether the political will, institutional flexibility and breath of vision exist is another question.

A. INTRODUCTION

Under impetus of the United States Agency for International Development, USAID, four Tanzania government agencies and ten US NGOs, universities, government agencies and consulting firms, collectively known as 'the partners', have formed a Strategic Objective team. The SO team's objective, which is also the USAID Tanzania environmental objective, is the establishment of the foundation for the adoption of sustainable natural resource management practices in Tanzania.

USAID brings resources from several sources to bear on the achievement of this key objective. It is helping create a framework for supporting Community Based Natural Resources Management, CBNRM, in Tanzania. This includes providing resources for the government to prepare and enact policies and policy instruments, and for capacity building at local, district and national levels. The SO program will carry out pilot activities in the Ugalla ecosystem in Tabora and Rukwa regions, and the Tarangire ecosystem in Arusha and Dodoma regions, and elsewhere (Kamara and Salehe, 1997).

EPIQ. Another resource of this SO team is EPIQ/Tanzania.[1] The tasks of EPIQ/Tanzania include: helping USAID monitor program activities, supporting Tanzanian national policy, supporting partners, and maintaining program vision. EPIQ's support to partners includes filling programmatic gaps and serving as a quick-response mechanism to meet emerging needs. Thus, it was to EPIQ that several partners turned when they identified an urgent need during this period prior to the finalization of funding agreements under the SO program.

These requesting partners are African Wildlife Foundation, AWF and its associated organization the Community Conservation Support Center, CCSC. Tanzania National Parks, TANAPA, also expressed a strong interest. The request was for a study of the impending privatization of land-based parastatals such as the NARCO ranches, and the potential change of status of other government properties such as the National Service (JKT) base in the Tarangire-Lake Manyara area. Of particular concern is the impact that changed land use patterns would have in the case of divestment, on wildlife movements in the Tarangire-Lake Manyara biotic corridor.

Scope of Work. EPIQ responded to this request by drawing up a Scope of Work and assembling a three-person team to conduct the study. The Scope of Work calls for oral debriefings, a written report, and collection of background materials concerning these 'at risk' properties, in particular their location, status, ownership/management options, and their relative priority in terms of the conservation and community conservation values of the program. The study team was mandated to look at such options as: returning land to the local communities, private ownership with conditions to allow wildlife movement, and joint ventures among private sector, communities, and possibly the national parks, among other options. The ideal outcome of the study would be a contribution towards a creative win-win solution that allows key stakeholders to get their core needs met. (Please see Annex A for the complete Scope of Work.)

When the study team met with the partners who had made the original request for the study, it was further requested that the study not focus too narrowly on the few properties in question,

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[1] EPIQ Tanzania is a buy-in by USAID Tanzania to the larger EPIQ project, Environmental Policy and Institutional Strengthening Indefinite Quantity contract, with the Global Bureau of USAID Washington. EPIQ maintains a Dar es Salaam office with full time staff, complemented by national and expatriate consultants.

but also spend some time in a more 'holistic' consideration of the larger picture. This was agreed to mean that the team would concentrate primarily on the main tasks of the Scope of Work, while allocating some time to the West Kilimanjaro ranch north of Arusha, and to the other land use issues affecting wildlife dispersal in the Tarangire ecosystem.

Methodology. The study team used time-honored methods of extensive document review and semi-structured interviews. The team established an optimistic list of interviewees that encompassed all of the known stakeholders, and an equally optimistic list of publications, and set about to visit and collect them, respectively. These efforts were only partially successful, although probably adequate given the time constraints of the 21-day study. In particular, the unsuccessful effort to assemble all the basic documents on the target area and allied topics gives new meaning to the term 'fugitive literature' and underscores the crying need for a resource center in Arusha. All of the documents used in this study are now captured for the nascent collections at EPIQ and CCSC, or their location is indicated on the reference list.

Starting in Dar es Salaam 16 February 1998, the team met with EPIQ staff, government officials and NGO personnel before shifting their investigations to Arusha. From a base in Arusha town, which houses TANAPA headquarters and many of the other stakeholders in the target area, the team members made trips to the national parks and surrounding areas, the parastatal properties, and concerned communities in the Tarangire-Lake Manyara area and in the Arusha National Park-West Kilimanjaro area.

From 20 February until 9 March (20-27 February for one member with previous commitments) the team conducted interviews with about 40 people and reviewed some three dozens of documents. During the stakeholders meeting on the Tarangire-Lake Manyara complex organized by TANAPA in Arusha 11-13 March, a debriefing was given by the study team members on their general findings. This generated feedback and further ideas which have been incorporated into this report. (Please see Annex B for people contacted.)

Accuracy. In many instances the study team was not able to collaborate important pieces of information from more than one source, or would receive conflicting data that could not be reconciled. Surrounding the privatization process, land purchases, policy implementation and other topics related to this study there seems to be an unusually thick layer of rumors, partial and out-dated information, misinformation and outright disinformation.

Also inhibiting accuracy is the speed with which situations can change, when a policy is suddenly announced, for example, or when a deal is struck. And then there is the difficulty of accomplishing seemingly simple tasks, like determining specific aspects of the properties in question. For example, no one to whom the study team had access could give us the precise size, location or intended future use of the JKT base near Makuyuni. If this report contained only that which is verifiably true, it would be very brief indeed. In sum, while the team has done its level best to winnow facts from fictions, the reader is reminded that inaccuracies are inevitable.

Definitions. Two terms are used frequently in discussions of wildlife: land ownership and wildlife corridors. Neither is as obvious as might first appear. In Tanzania, all lands belong to the state, the president in particular, and is not subject to absolute title. Instead, land 'titles', when they are granted, are in the form of long term leases up to 99 years, renewable. In addition to general lands, there are lands reserved for special uses like parks and forest reserves, and 'village lands' which are vested in the control of Village Councils. In common parlance, 'ownership' is often used to describe long term leases. Leases and ownership are used interchangeably in this paper.

The concept of 'corridor' as applied to wildlife movements seems to have various meanings. It refers at times to well-understood specific migrations, physical passageways established by humans to permit or encourage wildlife movement, and to more generalized seasonal dispersal

patterns, among other uses. Since many written and oral sources use the term without consistency, it is best thought of in its catch-all connotation unless specified otherwise. To be clear, this brief study relies almost totally on secondary sources concerning wildlife movement.

Organization of the report. The first major section presents the context of the study: the policy and legal framework, and the physical environment. The second major section discusses each of the properties, parastatal and governmental in the area, plus the West Kilimanjaro ranch, with reference to the aspects noted from the Scope of Work above. This section concludes with an analysis of possible options for these properties, and the impact each of these might have on the maintenance of wildlife movements.

The third section of the report looks at privatization with a small 'p', i.e., the rapidly changing land use patterns in parts of the Tarangire ecosystem as village land passes into private hands. The final section presents some ideas for next steps that concerned parties might consider. Shaded boxes are used to present the programs, ideas, issues and quotes from various players and perspectives.

B. CONTEXT

B.1. Policy and legislation

Fundamental questions of state policy and social justice are raise by the planned privatization of state-owned properties which are located in an area used by wildlife to move between national parks, and which has historically been used by pastoral communities as part of their grazing lands. It raises issues of potential clashes among various national policies and laws.

These conflicts need to be resolved in a way which does not compromise the objectives of the policies concerned. It is necessary, therefore, to examine various policies which relate to the objectives of this study in order to understand the general policy context, areas of potential policy conflicts, and possible resolution of the apparent conflicts.

Economic Liberalization Policies Tanzania began to adopt economic liberalization measures in the mid 1980s. The central thrust of these measures was to open up the country=s economy by removing restrictions on foreign trade and foreign currency; and to reduce government expenditure by cutting off subsidies on state-owned enterprises and selling them to private entrepreneurs. The latter is the essence of privatization (see Box 1).

Privatization started earnestly in 1992 when amendments were made to the public corporations law which set the stage for the divestiture of the government interests in public corporations. This gathered pace after 1993 when further amendments to the public corporations law established the Presidential Parastatal Sector Reform Commission, PSRC, as the institutional organ responsible for the restructuring of the public corporations (Lissu, 1996). The latter amendments also set out the procedural framework for restructuring, as discussed below in section C.1. Privatization Process.

Who is eligible to acquire privatized companies. A opinion was expressed that to PSRC privatization means the divesting of government stakes in public corporations and the selling of those stakes to non-government institutions and individuals (Nyamwihula, pers. comm.) This may be seen as precluding semi-autonomous government agencies such as TANAPA that may have an interest in the divestiture of certain properties such as those in the Tarangire-Lake Manyara biotic corridor.

The study team's examination of the privatization law does not, however, support this proposition. Although >restructuring= (the legal term for privatization) is defined in law as >any restructuring the result of which ownership, structure or control of a specified public corporation or specified government minority shares is altered=, the team did not see any provision in the law which expressly prohibits other public corporations or government agencies such as TANAPA from buying shares or assets of specified public corporations such as the two properties the subject of this inquiry.

"Over the years Government has invested billions of shillings in public enterprises in the hope that they would effectively mobilize and utilize resources for the benefit of all Tanzanians and pay dividends to the Government. Those hopes were frustrated....

[Referring to the situation of state-owned enterprises by 1990] "The Government did not then, or now, have the resources to recapitalize, modernize or bail them out. In any case, we need to direct whatever resources we have towards the maintenance of law and order and the provision of economic infrastructure and social services.

"So the decision to reform and privatize parastatal enterprises is an economic imperative and has nothing to do with ideological considerations. It is informed by the stark reality that my Government's ability to run them is very limited. Above all, it is based on our resolve to improve overall economic and business efficiency.

"I wish to stress, therefore, that it is not my government's intention to replace public monopolies with private monopolies. The key goal is to create a competitive environment which will facilitate effective utilization of our resources for the development of our people."

"Privatization is the antithesis of nationalization and the Tanzanian people will rightfully demand to know the benefits to be derived from this radical change of policy. ... I wish to reiterate the unflinching resolve and commitment of my Government to the reduction of Government's involvement in business decision making. We will go to any length to ensure the success of this program for the benefit of every Tanzanian."

Ali Hassan Mwinyi, President of the United Republic of Tanzania
12 August 1993

There is, however, another policy hurdle to the potential interest of TANAPA or any other conservation-minded entity in acquiring the two properties. The privatization policy sees as a major policy aim, the revival or expansion of the operations of the property to be privatized. This means that whoever acquires the privatized Manyara Ranch or Minjingu phosphate plant would be required to revive or expand their operations. This is precisely the kind of activity which runs counter to the interests of wildlife conservation. The task then, for any potential purchaser of these parastatals, is to

develop economic alternatives to cattle ranching or phosphate mining that render the 'company' financially viable based on the same basic asset: the land itself.

The National Land Policy. Prior to 1996, Tanzania did not have a comprehensive land policy. Piecemeal legislation B ***some dating back to the colonial era*** B ***and ad hoc administrative and political practices and the socio-economic dynamics led to serious problems and conflicts concerning land tenure, management and administration (URT, 1994).***

In 1996 the government adopted a National Land Policy with the stated overall aim of promoting and ensuring a secure land tenure system, encouraging the optimal land and resource use and facilitating broad-based socio-economic development >without upsetting or endangering the ecological balance of the environment=. Furthermore, the Policy aims at, among other things, promoting an equitable distribution of and access to land by all citizens; recognizing, clarifying and securing in law existing customary land rights of small-holder peasants and pastoralists; setting ceilings on land ownership in order to avoid or control the concentration of landed property in few hands; and protecting land resources from degradation for sustainable development (URT, 1996).

The Land Policy further provides that mechanisms for protecting sensitive areas such as >migration routes of wildlife= shall be created and that >these areas or parts of them should not be allocated to individuals= This has potentially serious implications to the proposed privatization of the Manyara Ranch and the Minjingu phosphate plant which lie in wildlife corridors between Tarangire and Lake Manyara National Parks.

One implication may limits set on the size of the lands earmarked for privatization. The Government is said to be considering recommendations of the National Land Use Planning Commission, NLUPC, that neither private individuals nor companies should own more than five thousand acres of land (Mango, pers. comm). Manyara Ranch has about 44,000 acres, which is almost nine times the limit, if the limit would be approved by the Government.

Secondly, should the proposed privatization go ahead, it would clearly run counter to the stated Government policy of not allocating lands in sensitive areas to private individuals or companies. Thirdly, the Land Policy -- by making provisions against land use practices which >upset or endanger the ecological balance of the environment; and for >protecting land resources from degradation for sustainable development= -- provides policy basis for putting conditions of use to any future owner(s) of the properties in question to use the lands in an environmentally sustainable way. For instance, conditions may be put to whoever becomes the new owner(s) of the properties concerned that they shall not cultivate nor fence off the lands in order to allow unimpeded movement of wildlife between the two national parks.

Reversion of titles to original owners. The National Land Policy provides policy framework for the reversion of the title to the lands concerned to their original owners. It sees the dispossession of pastoral communities, growing land tenure conflicts and environmental degradation as arising from >extensive= and >haphazard= alienation of rangelands for large scale agriculture, and states that >when any activity other than pastoralism ceases in rangelands (e.g. abandoned ranch) that land will revert to its original land use=. The practicalities and risks of this option are far from clear, however. (see Box 2.)

The alternative, which was recommended by the Presidential Commission of Inquiry into Land Matters, is to vest this authority in the Village Assembly itself which would be a more transparent and democratic means of making such vital decisions. Reports indicate wide-spread abuse by Village Council members who conspire with other officials in transfers of land to non-residents for farming purposes, often to the shock and dismay of Village Assemblies and the community at large who learn about their loss after the fact.

Whatever the legal and social justification for vesting village lands in the Village Council, one result is to leave villages more vulnerable to external land grabbing than might be the case if the Village Assembly were accorded primary responsibility. Given this provision of the new law, the suggestion by well-meaning parties that parastatals lands slated for privatization should simply be "given back" to the communities appears naive. Such transfers of land would be unlikely to achieve the implied objective of allowing community use in perpetuity, especially when these lands that are now covered with vegetation suitable for grazing are ploughed for farming or fenced. And what of the rights of non-residents who have historically used the land on a seasonal basis?

If local communities are to retain or regain use rights over parastatal lands, some protection must be designed that guards against the abuse of a few officials to the detriment of all. (Shivji 1992, Lane and Moorehead, 1997)

This part of the policy appears to be sound. Contemporary range management science recognizes that in marginal lands, pastoral forms of production and resource use are the most productive and optimal land use practices, and are also environmentally sustainable (Lane, 1995).

It is also widely acknowledged that pastoralism, unlike other modes of land and resource use such as cultivation, is generally compatible with wildlife conservation (Arhem, 1985; Western, 1992). Furthermore, this is in keeping with the wishes and demands of the local pastoral communities in the area that if the government has failed to manage the properties properly, then they should be given back to the Maasai communities from whom they were obtained in the first place (Isilalei village elders, pers. comm).

The draft Wildlife Conservation and Utilization Policy. The Draft Wildlife Conservation and Utilization Policy, which is said to be in the final stages of approval by the Government, was not made available to the study team despite several requests. It reportedly makes provisions for the management of wildlife in areas outside National Parks such as dispersal areas and migration corridors which are critical to the integrity of park ecosystems and maintenance of wildlife production cycles and habitats. It also provides for management of wildlife in these areas in ways which ensure that local communities therein participate in, and benefit from, the management of wildlife in their lands through the envisaged creation of Wildlife Management Areas, WMAs (see Box 3).

Although this policy document has yet to be formally adopted by the government, a number of WMAs already exist in various parts of the country as pilot projects sanctioned by the Division of Wildlife.

The draft Policy thus should provide the policy framework, and the existing WMA pilot projects provide the precedent and experience, for incorporating some segments of the Tarangire-Lake Manyara wildlife corridors into WMA pilot projects. It is even conceivable that, depending on how PSRC and the government as a whole eventually interprets various policies, the Manyara ranch itself could become a WMA in concert with the concerned villages.

Local Government Policies and Land Management. Local Government authorities were re-introduced in Tanzania in 1982 after a decade of central government control at the local level (Mwaikusa, 1992). Although the central government still retains overarching powers over local governments in the form of ministerial control, there is more room now for local communities to manage their affairs through village and district authorities (Wiley, 1995).

The law establishing local authorities empowers District Councils to control and regulate natural resource use in the areas under their jurisdiction by way of subsidiary legislation. District Councils can, for instance, enact by-laws to establish, preserve, maintain, improve and regulate the use of forests and forest produce; and to prohibit or regulate the hunting, capture, killing or sale of animals or birds or of any specified bird or animal. The district authorities are also vested with the function of controlling or prescribing the methods of husbandry in respect of any agricultural land in the district.

Village councils. Village councils have been vested with the powers to, among others, initiate and undertake any task, venture or enterprise designed to ensure the welfare and well being of the residents of the village; and to plan and coordinate the activities of, and render advice to, the residents of the village engaged in agricultural, horticultural, forestry or other activity or industry of any kind. In addition, village councils are empowered to do such acts and things as appear to them to be necessary, advantageous or convenient for or in connection with the carrying out of its functions.

Even though WMAs are not yet recognized in Tanzanian law, a number of official and quasi-official experiments are underway, experiments that could greatly benefit from mutual learning and concerted national coordination.. At the same time, a body of experience is emerging from more mature attempts at community conservancy in other countries. The establishment and proper functioning of a WMA is complex and labor intensive and, in its initial stages, an expensive operation. Most villages' boundaries are not surveyed and often disputed; inter- and intra-village disputes over resource use are common; and increasing land pressures accentuate the need for significant levels benefit sharing, which one of the great stumbling blocks to WMA success, i.e., getting other parties to give adequate portions to villages.

Aside for the legal and economic factors crucial to WMAs, consider the institutional requirements. The list of the most essential organizational functions includes: enforcement of agreements, permitting; licensing; adjudicating; conflict management; negotiation; information development and management; data analysis and conclusion drawing; decision-support functions; resource use planning; community organizing; advocacy; institutional bridging functions; and fund management. (David Richards, pers. comm.)

Pioneering WMAs is daunting work, and success is hardly guaranteed. Yet, the stakes are very high for conservation through shared management responsibilities, and viable options are few. One advantage for Tanzania compared to many countries is that villages are recognized as legal persons able to make binding agreements. Community Conservancy experiments in other African countries, working under even more acute policy and regulatory confusion, indicate that innovative demonstrations can serve to catalyze decision-makers and help create the political climate for acceptance of new concepts in community based natural resource management and conservation. (Otto)

Like district councils, village councils are also vested with law-making powers over a wide range of issues. Without forgetting the top-down control by central government and district councils, it is obvious that village councils have a measure of power to control, regulate and manage natural resources in the areas under their jurisdiction. The question is whether in a situation where powerful interests are involved in the exploitation of the natural resources, can local authorities be allowed, and be depended on, to exercise their natural resource management powers in the long term interests of all the local people (See Box 2).

B.2. Physical Situation

The Tarangire-Lake Manyara area includes all that land described as the Lake Manyara Basin (Griffin, 1996), and the Tarangire ecosystem (TCP, 1997). The area spreads into seven districts of Arusha region, including Monduli, Simanjiro, Kiteto, Babati, Mbulu, Karatu, and Ngorongoro, and reaches Kondoa district in Dodoma region. For purposes of this study, Hai and Rombo districts of Kilimanjaro will be touched in connection with West Kilimanjaro ranch and wildlife corridors in that area. (Please refer to Figure 1.)

Only two titled important properties exist in the Tarangire - Manyara biotic corridor:

- ***Manyara Ranch***
- ***Minjingu Phosphate Mine***

There exists also a former JKT base at Makuyuni.

The Manyara Ranch is located in the south east of L.Manyara. It is surrounded by mainly Maasai pastoralist villages including: Islalei village to the north and north-west, Mswakini village in the south and Oldukai village to the west. Oldukai and west Islalei form a buffer between Lake Manyara and the Manyara Ranch (see Fig. 2).

The Minjingu phosphate mine property belonged to STAMICO the holding company of the Minjingu Mining Company. It is located within is within the Lake Burungi/Kwa Kuchinja wildlife corridor within the Minjingu village north-west of Tarangire NP (see Fig. 2).

The Government Special Use area formerly occupied by JKT. This property is not well defined. It is located adjacent to the Manyara ranch, north of the road from Makuyuni to Mto wa Mbu (see Fig.2). It is not clear what use this property is fully put to, although the team was informed that part of it has been alocated to use by a boys secondary school.

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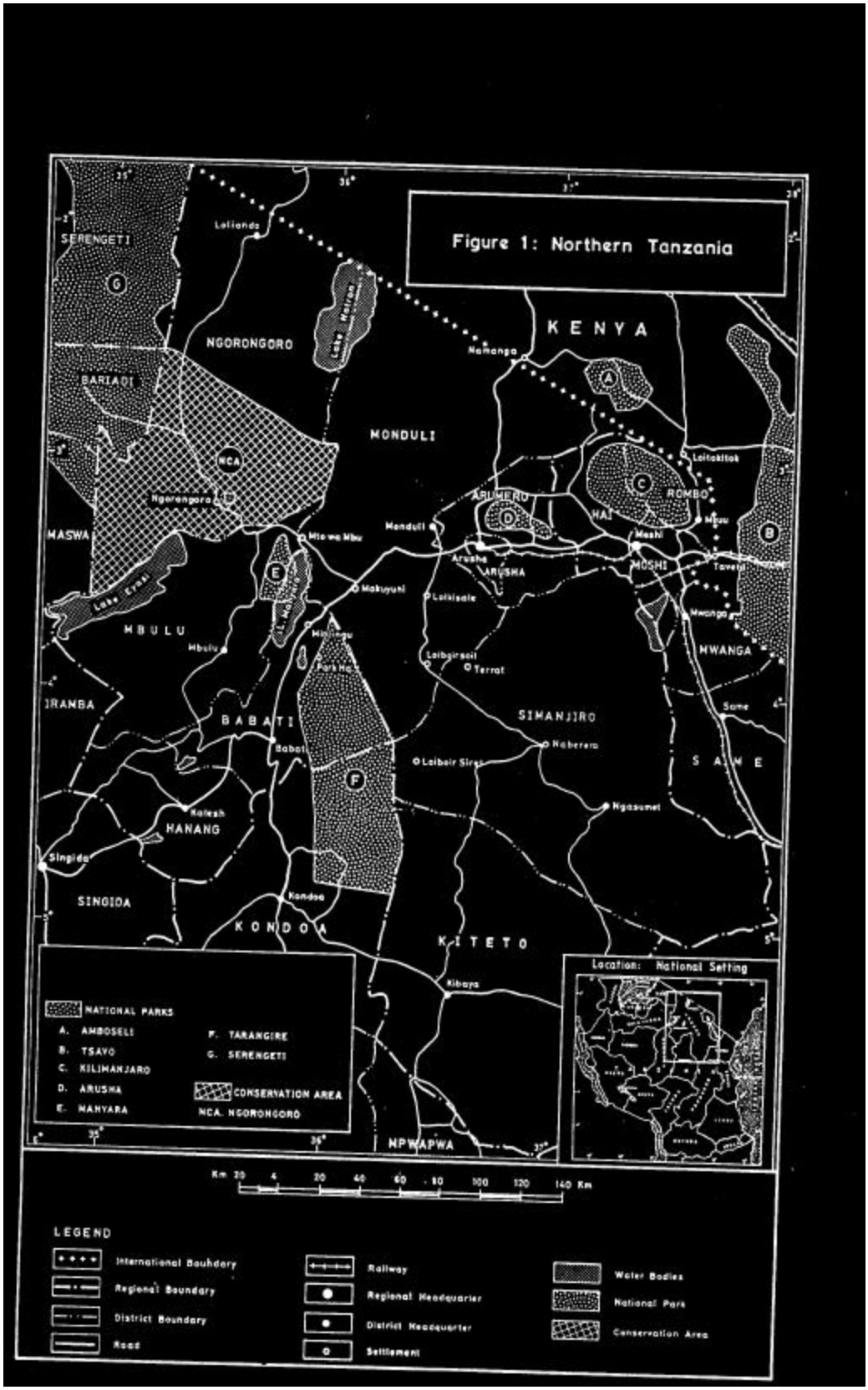

Four national parks of relevant for this study: Tarangire, Lake Manyara, Arusha and Kilimanjaro. The Ngorongoro Conservation Area is also involved in that wildlife movement from Tarangire-Lake Manyara area reaches here. However, Tarangire NP and Lake Manyara NP form the core of this study and discussion.

Tarangire National Park. Tarangire NP is located between 35^0 45' and 37^0 east and 3^0 40' and 5^0 35' south. It covers an area of 2,600 square kilometres. The park is a dry season refuge for wildlife. During the dry season wildlife enter the park for pasture and water as the Tarangire river that is the area's only permanent source of surface water. It is second only to Ngorongoro Crater in the concentration of wildlife in the dry season. The park contains a variety of wildlife species in good populations, which attract visitors from all over the world. In the last ten years there has been a progressive increase in annual visitor volumein the park, from 7,290 visitors in 1987/88 to 54,454 in 1996/97. This is paralleled by a similar increase in revenue (see Table 1).

Lake Manyara National Park. This park lies to the northwest of Tarangire NP. It is located just at the bottom of the rift escarpment. It covers 330 square kilometres including some water surface of Lake Manyara which is saline. Being a small park with high habitat diversity, it attracts both site seers and game viewers. Lake Manyara NP contains the highest density of elephants in Tanzania. Like Tarangire NP, Lake Manyara NP has experienced growth in visitor numbers, during the period of 1988 to 1997 (see Table 1).

Land Use. On the basis of Griffin's classification of land uses in Lake Manyara Basin, four categories of land uses are relevant to the Tarangire-Manyara area: agriculture, wildlife, pastoral and mining. The relevance and potential negative impacts of each (see Box 3) should be considered carefully when attaching conditions of land use and development on new leases of the property under consideration during the process of privatisation of the properties.

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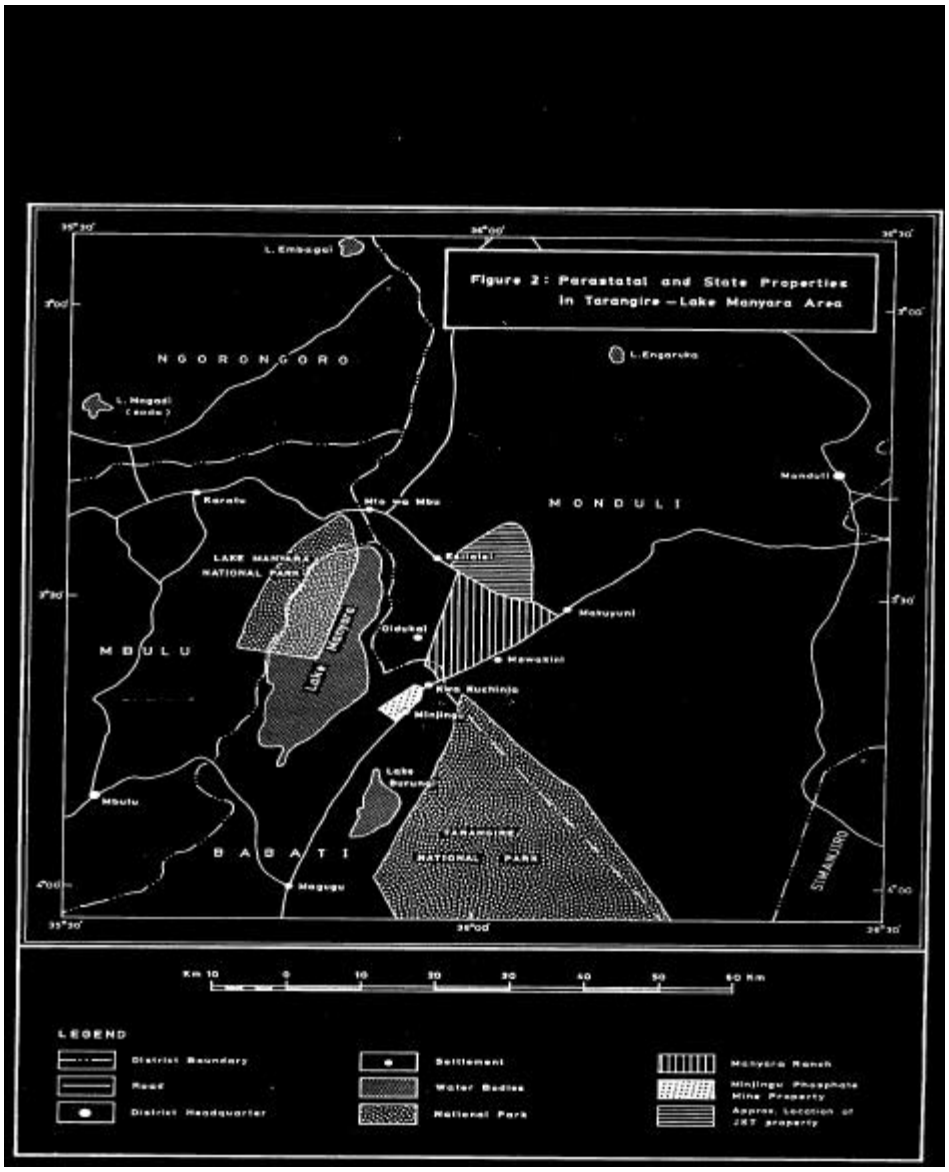

Agriculture:

Type and location: smallholder in all locations; commercial medium and large-scale north and east of Tarangire NP; irrigated fields around Mtu wa Mbu.
Potential negative impacts: reduction in vegetation cover, replacement of pastoralists with higher density of human population that is far less amenable to wildlife; extractive cultivation practices leave marginally fertile soils useless within a few years leading to land degradation and soil erosion; siltation and pollution of streams and lakes from irrigation. Agriculture provides food and income for many people, but huge blocks of land used for commercial production of exported beans and flower seeds contribute nothing to food security.

Pastoralism:
Type and location: Throughout the area, Maasai cattle herds, both resident and, in dry periods, significant numbers of mobile herds from all over Maasailand come to this area; pastoralists are under constant pressure from agricultural expansion.
Potential negative impacts: grassland degradation and acceleration of soil erosion in overgrazed areas; competition for water in dry season; disease exchange among wild and domestic animals. Generally considered a compatible and often the optimal use with wildlife, given many generations of experience; more recently, forced increases in contact and competition may change this.

Wildlife hunting:
Type and location: almost all of the area is divided into hunting blocks and allocated for seasonal hunting by Wildlife Division; illegal hunting is also reportedly widespread in the corridor areas.
Potential negative impacts: hunting seasonally restricts use and access to land by other users. If poorly organized and controlled, as is reportedly the current situation, it permits abuses in numbers and types of kills. Hunting does provide high levels of revenue generation, although hunting revenue is not currently shared in any systematic, significant manner with local communities

Mining
Type and location: limited to phosphate at Minjingu and small scale gemstone mining in parts of Simanjiro.
Potential negative impacts: pollution, removal of vegetation and soil erosion, and increase in human population with attendant small farming and charcoal burning. Mining creates opportunities for employment and income generation for some, but the Minjingu mine is long closed.

B.3. Wildlife corridors and dispersal areas in the Manyara-Tarangire area

Corridors are defined as habitat that permits the movement of organisms, in this case wildlife, between two isolates, in this case Tarangire and Manyara NPs (Newmark, 1993). They are areas through which wild animals move more or less freely in search of seasonal niches, for reproductive and/or nutritional purposes. In the process, corridors facilitate gene flow within populations over a range of habitats. Thus, wildlife corridors can mitigate the adverse effects of habitat fragmentation because habitat fragmentation results in species loss and the corridors reduce this loss.

Wildlife corridors alone will never ensure the persistence of all species within isolated protected areas; nonetheless, they promote the survival of many species (Newmark, 1993). To be effective in reducing loss of species, wildlife corridors must promote the movement and dispersal of those species. In the case of the Tarangire-Lake Manyara area, species like wildebeests, zebra, buffalo and elephant, and associated communities, would be adversely impacted by reduction or lack of viable corridors. Therefore, corridors are important for long-term conservation of both Tarangire and Manyara NPs.

Definitions of corridors. The terms corridors, migratory routes and dispersal areas seem to be used synonymously by some authors, or in special connotations by others. The terms describe various kinds of behavior, not all of which are well understood in all areas. The simple term

'wildlife movement' may be more appropriate, as applied to periods when wild animals leave parks and make there way to other areas, not always with full human understanding.

The lack of precise use in terminology may be due in part to the lack of dependable data on many species over long enough periods to establish with confidence the actual uses made of certain zones.

Animals may move seasonally between two areas via a fairly well-defined corridor, sometimes many kilometres long. Or, they may use a particular short route to move from a given park to a favourite calving area, and then disperse without obvious pattern. What is more, animal requirements and preferences vary. An open grassy passage may suit wildebeest, while elephants might rather move through thicker vegetation. Reportedly, antelope will pass quite close to human settlements in rural areas at night, apparently to reduce risks of encounters with lions who prefer to keep greater distance from humans (Mango, pers. comm.).

One important aspect of a wildlife corridor is that, like a chain, it is no stronger than its weakest link or segment. For corridors that go between specific protected areas, the entire length of it must be intact. Figure 7 is excerpted from a thesis that studied one crucial segment of the main Tarangire-Lake Manyara corridor. (Kapala and Moe, 1988).

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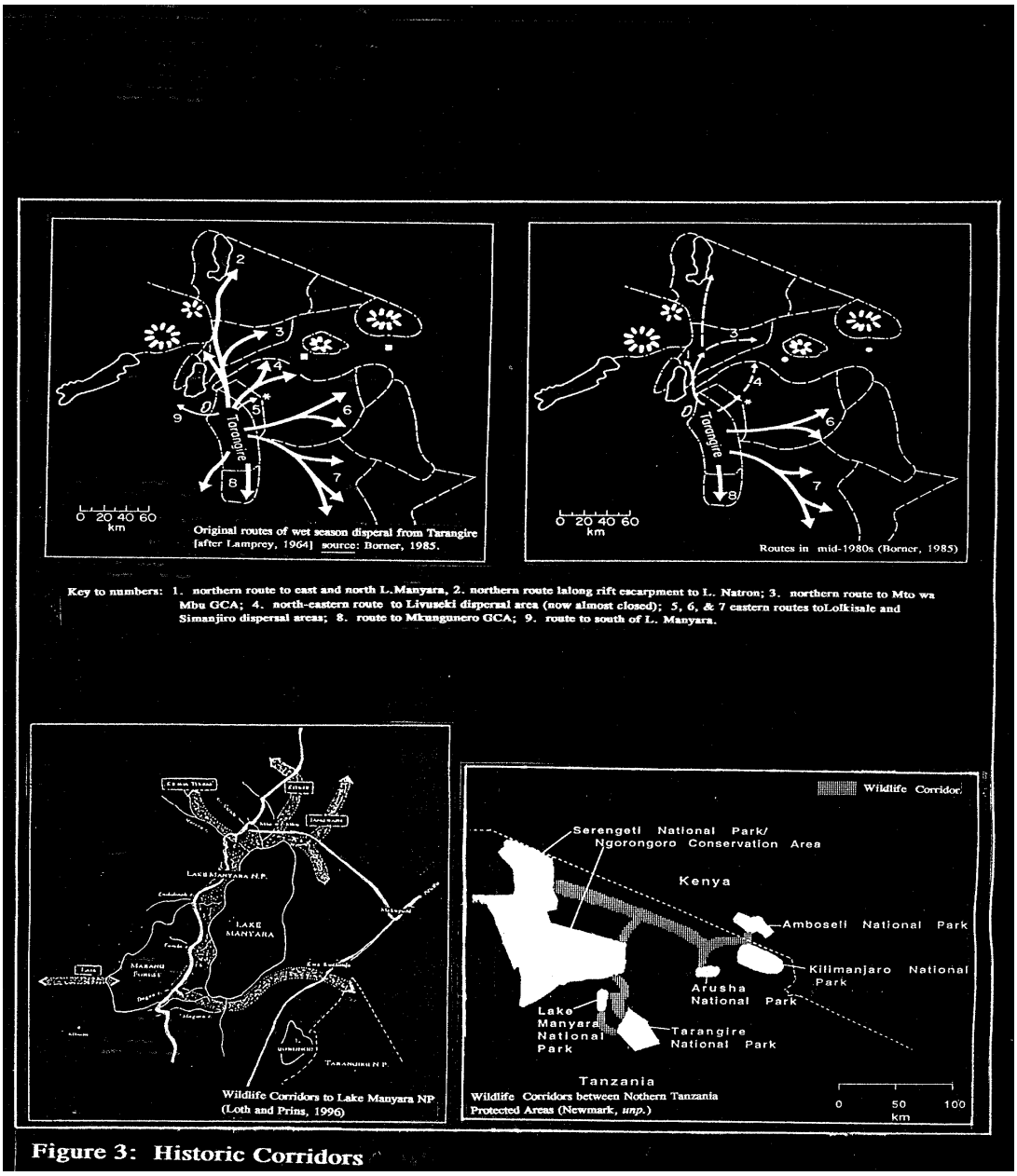

Figure 3: Historic Corridors

Even if a specific parastatal property such as Manyara Ranch or West Kilimanjaro ranch were somehow kept available for wildlife, the segments on either side of it would likewise have to be considered in terms of wildlife movement. Herein lies the logic for regional planning on corridors, and for new approaches to community cooperation in wildlife management.

Mapping corridors. Over the years several ways of portraying location and direction of the corridors in the Tarangire-Lake Manyara area have been attempted. Most illustrations and maps in this regard depend on the objective of the author or what one needs to emphasise (see Figures 3 - 7).

Extent and approach has differed. Some have emphasised the more isolate-to-isolate or ecosystem approach as portrayed in figures 3 and 6. Others take a more complex regional/zonal approach to show the interconnections, as is the case in figures 4 and 5. Designing or protecting corridors requires knowledge in some detail of landform, impediments to wildlife movement especially near human habitation, and of the particular requirements of each species in question (see figures 6 and 7).

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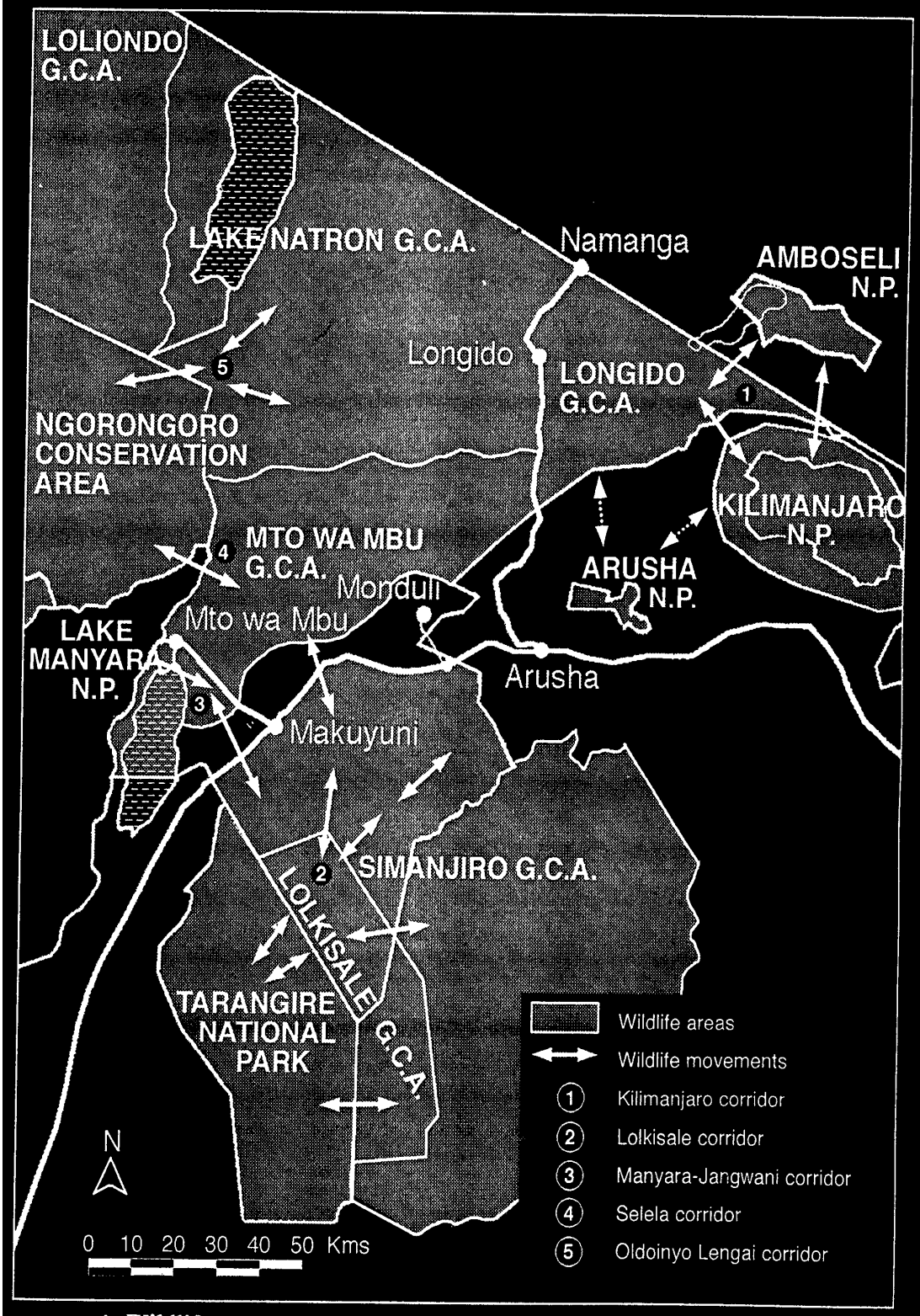

Figure 4: Wildlife Protected Areas and Corridors in and around Moduli District

source: Monduli District Council (1997), Planning for a Better Env. in Moduli District)

The first known study on corridors in the Tarangire-Manyara area was conducted by Lamprey in 1964 (Borner, 1985), when several corridor routes were identified: the northern and north-eastern, the eastern and other minor routes including the southern one that connects Tarangire NP to the south of Lake Manyara. According to Borner, by 1985 some minor routes had been closed off and the northern route reduced considerably (see figure 3).

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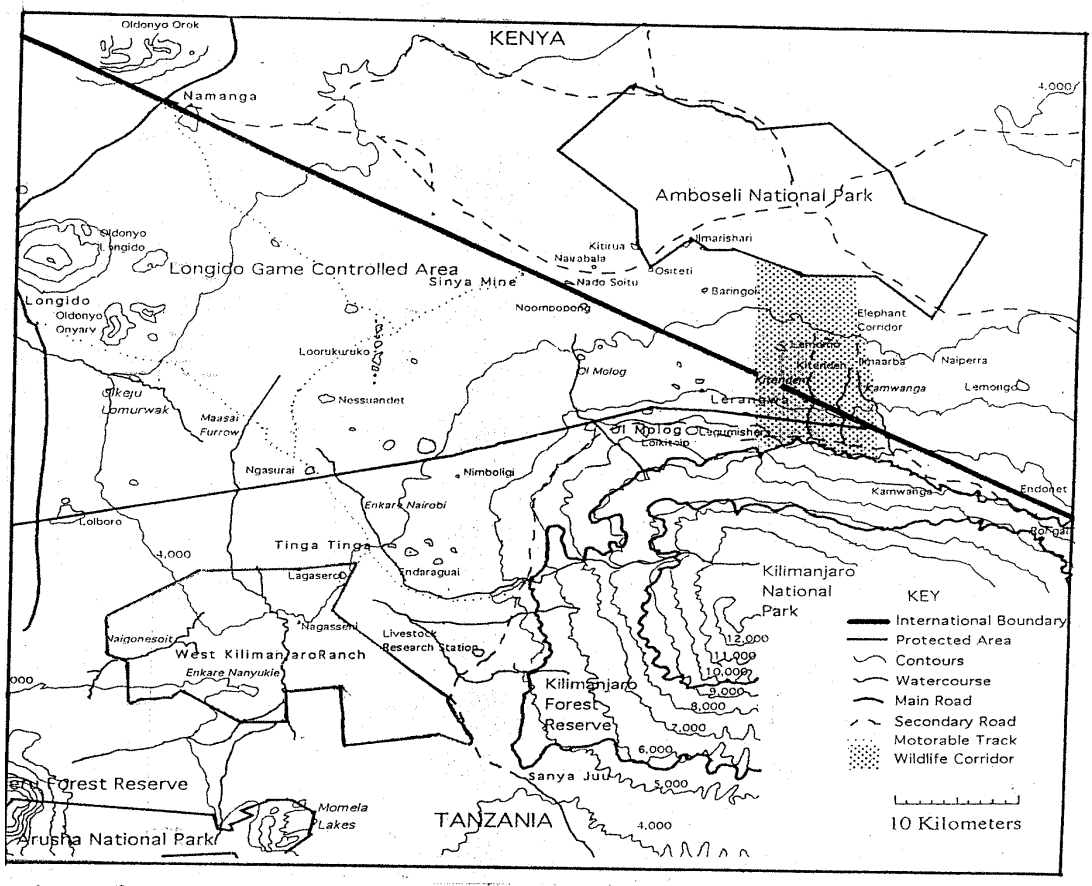

Figure 5: Kilimanjaro - Amboseli Official Corridor (source: Poole and Reuling, 1997)

Today, only the eastern dispersal routes towards the Simanjiro Plains remain as highly viable corridors around the Tarangire NP. However, these routes are also threatened by large-scale farming in Simanjiro between the park and the dispersal areas. The northern route from the tip of Tarangire NP towards Mto wa Mbu at the north end of Lake Manyara, and northeastern towards Livueki have become increasingly minor routes (TCP, 1997).

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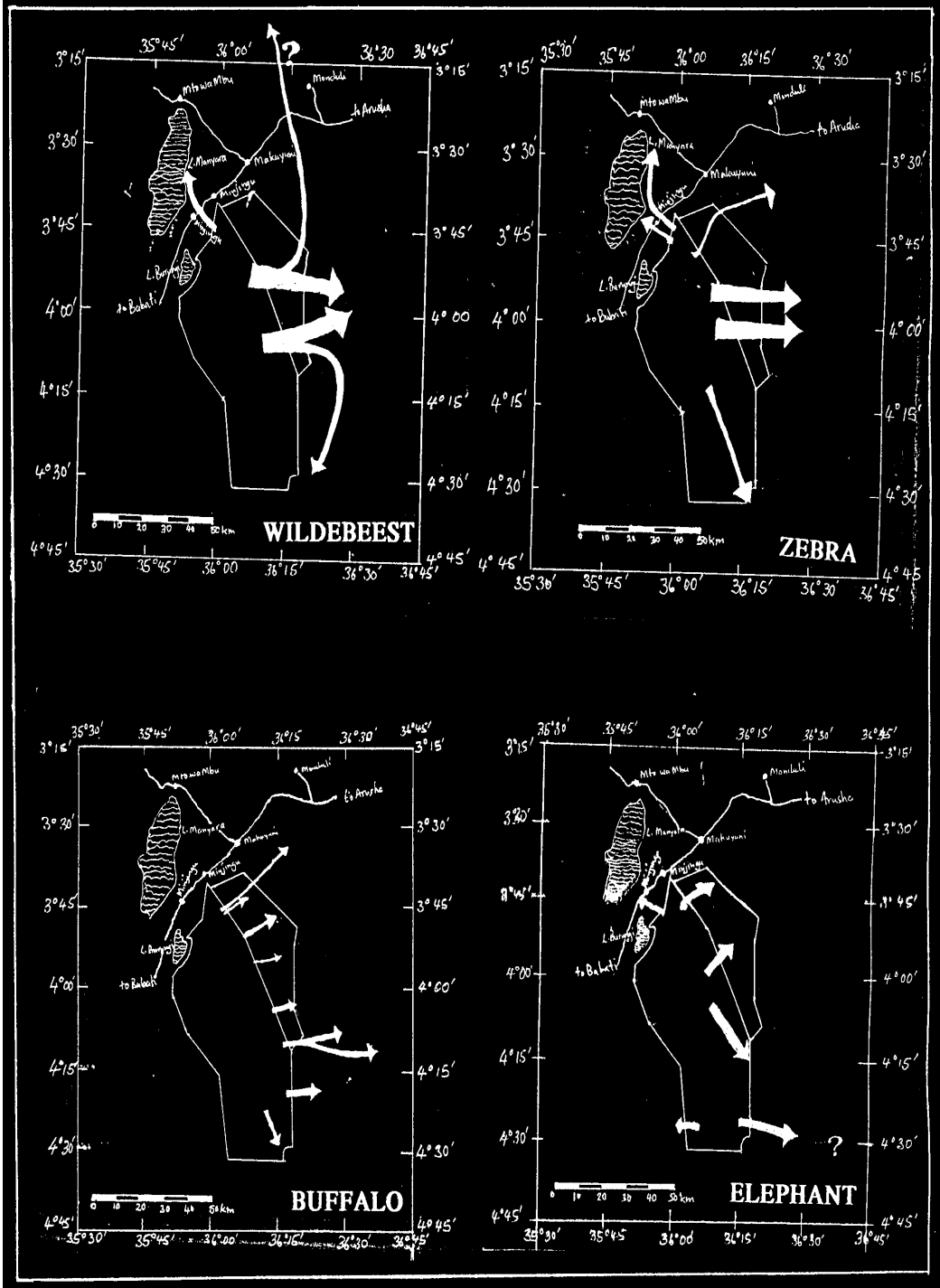

Figure 6: Corridor by species. source: Tarangire Conservation Project, 1997.

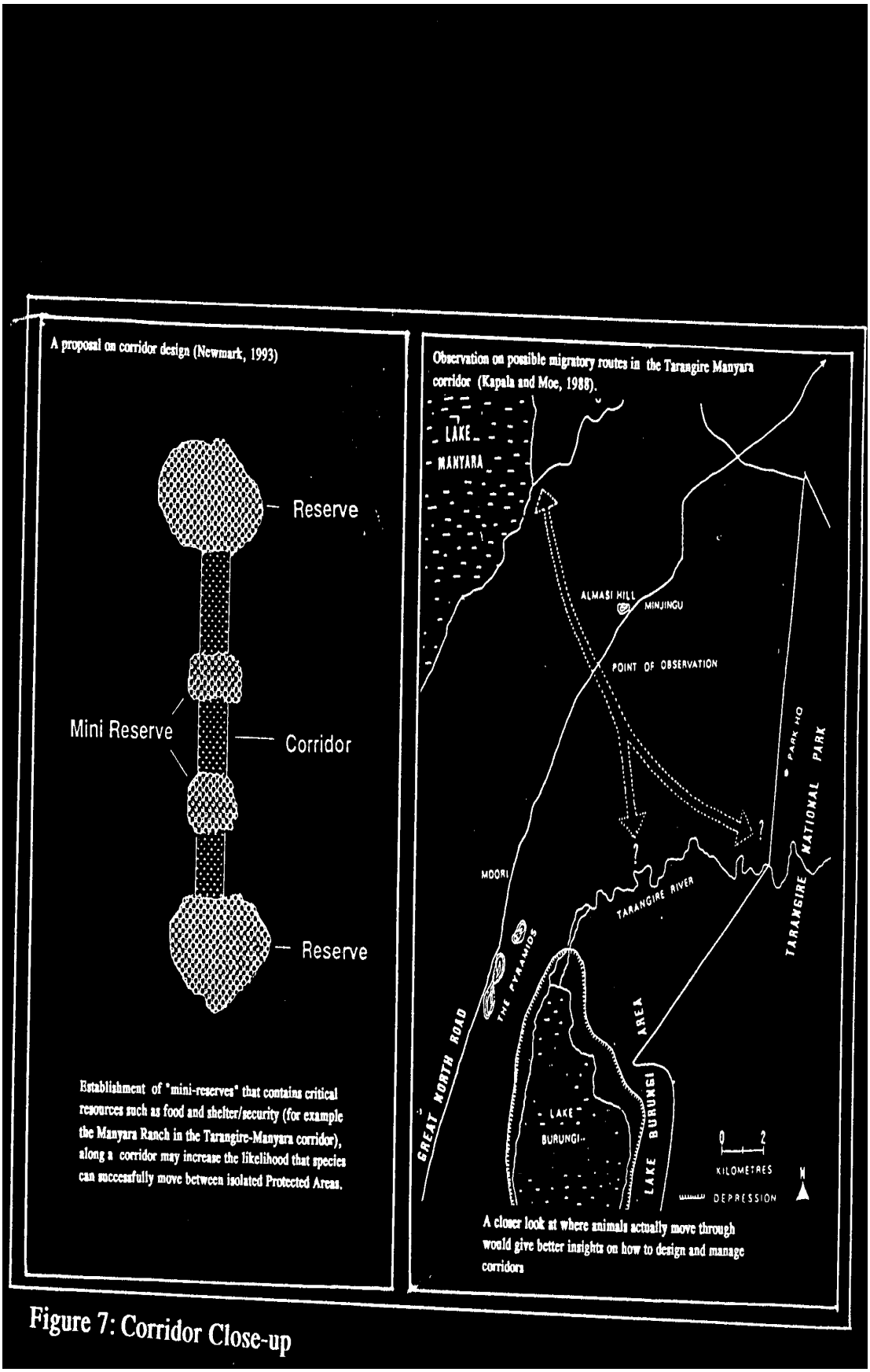

Figure 7: Corridor Close-up

Threats to corridors. In the Tarangire-Lake Manyara area corridors face four main threats:

* ***A ribbon of development occurring along the main road running north-south between Tarangire and Lake Manyara. In this area, between 1980 and 1988 the number of dwellings grew by about 26.6% per annum (SEMP).***

* ***Encroaching development of agriculture, which is not a sustainable land use practice in the area. In some areas near the parks agricultural expansion has already closed off corridors, for example, the former north-eastern migratory route out of Tarangire through Lolkisale Game Controlled Area. In Monduli district for example, blocking of corridors is considered as one of the major environmental problems, the district faces (see Fig. 8).***

* ***Charcoal burning, often in association with bush clearing for agriculture, is on the increase all around the area. This practice inhibits wildlife movement and in some cases results in changes in vegetative cover (even apart from cultivation) that destroys grasses for grazing animals.***

* ***These economic activities bring with them persons from different parts of Tanzania and other countries, resulting in rapid population growth in the area. Land grabbing, misuse of land, animal poaching and abuse of the rights of the indigenous pastoral Maasai communities are some of the negative impacts.***

Reports on the problem. Kahurananga (1981), described the situation of wildlife dispersal and utilization of the dispersal areas in Simanjiro (see Box 4). Wet season distribution of wildebeest and zebra suggests that the Simanjiro area is important to dispersal and migratory ungulates, and therefore an important part of the Tarangire ecosystem (TWCM, 1994). Changes in land use and tenure have caused disruption in this systematic and harmonious utilization of the Simanjiro Plains habitat by wildlife and pastoralists. TWCM, based on their regular and systematic observation in the area over a long time, predict that:

> ***"Because agriculture is reported to be incompatible with gazing by wild herbivores, expansion of agriculture in Simanjiro will have likely negative effects on zebra and wildebeest population, and perhaps other ungulates as well".***

The Monduli district environmental problem assessment (see Fig. 8), also ranks agriculture as a major source of environmental degradation in the district. It is responsible for the prominent symptoms of environmental deterioration, mainly soil degradation, vegetation loss and closure of wildlife corridors

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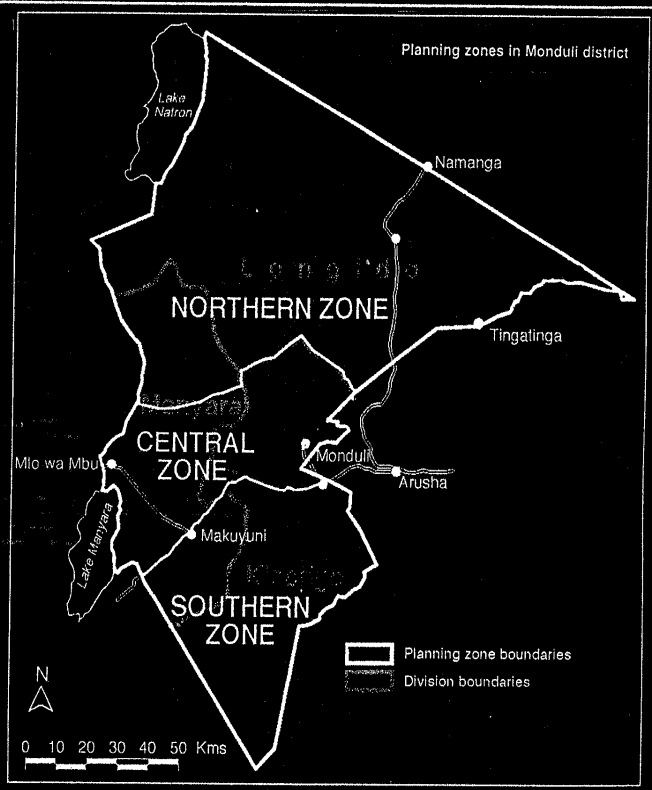

Scoring of environmental problems in Monduli district

ZONE &	SOIL DEGRADATION						WATER			VEGETATION			WILDLIFE		
SECTOR	Water erosion	Wind erosion	Compaction	Depletion	Pollution	Salinization	Availability	Siltation	Quality	Forest cover	Shrub cover	Grass cover	Numbers	Species	Corridor blocking
Northern Zone															
Smallholder agri.	(+)	(+)		+			+	+	(+++)	(+)	+	+	+	+	+
Large-scale agri.	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Irrigation					(+)	+	(++)		+				+	+	++
Livestock	(++)	++	(+)				(++)	+	+		(+++)	(+)	+	+	+
Forestry	+									++					
Wildlife													+++	+	
Central Zone															
Smallholder agri.	+++	+++	(+)	++			+++	+++	+	(+)	+++	+	++	+++	+++
Large-scale agri.	+	+	(+)	+	(+)		+	++	+	(+++)	(+)	+	++	++	++
Irrigation					(+)	+++	+		+				++	++	+++
Livestock	+++	++	(++)				(++)	++	++	+	(+++)	(+)	+	+	+
Forestry	++	++						+		++			+	+	++
Wildlife													+++	+	+
Southern Zone															
Smallholder agri.	++	++	(+)	++			++	+++	+	++	++	+	+++	+++	+++
Large-scale agri.	+	+++		+	+		+++	+++	+	+++	+++	++	+++	+++	+++
Irrigation	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Livestock	+	+	(+)					+	+++		(++)	(+)	+	+	+
Forestry	++	++						++		++	+		++	++	++
Wildlife													+++	+	+

Codes: +++ = high, ++ = moderate, + = low,
empty cell = no effect, na = not applicable.

Figure 8: Monduli District Environmental Problems

Ten years ago, TANAPA and SEMP (1988), reporting to the NLUPC, cautioned about the danger facing Tarangire ecosystem mainly emanating from agricultural encroachment:

> ***"During the wet season a major portion of the Tarangire wildlife leaves the park and occupies surrounding areas. This migratory system enables the vegetation to go through a recovery phase, preventing overgrazing and excessive over-use. The migratory system therefore enables the high concentration of both wildlife and livestock found in this area.***
>
> ***Over the last decade, agricultural encroachment in areas surrounding the park has already blocked some migration routes. Continuing encroachment now threatens all the remaining wet season dispersal areas.***
>
> ***..... Livestock grazing areas adjacent to the park are being severely reduced by both small and large-scale agricultural development, resulting in over-grazing of the***

"The population of zebra and wildebeest build up in the Simanjiro Plains during the rains. ... Simanjiro is an important wet season habitat for wild ungulates. This phenomenon of zebra and wildebeest migrating into short grassland area during the rainy season is of paramount importance in the ecology of these East African ungulates.

.... the two dominant wild herbivores use the Simanjiro during the rains, cattle use the area more during the dry season. The main reason for this is the presence of water in the area. the Simanjiro has two bore holes and two springs. ... The main part of the southern Maasailand becomes a waterless wilderness during the dry season. It is during this time that a large influx of cattle into Simanjiro occurs. During the rains water is available everywhere and the cattle disperse. Also Maasai avoid the short grassland plains during the rains claiming that the incidences of malignant catarrh becomes high in the area at this time when the wildebeest are calving.
It can be concluded, therefore, that the Simanjiro Plains is an ecologically important area. It supports the largest population of zebra and wildebeest in the southern Maasailand during the rains. It also has a high cattle population which increases sharply during the dry season. The grassland is therefore intensively used throughout the year." [Kahurananga, 1981]

"Sustainability of migration corridors and the Tarangire ecosystem
..... The study has shown that the SP [Simanjiro Plains] are vital part of the Tarangire ecosystem. Other dispersal areas of zebra and wildebeest are Kwa Kuchinja plains south of Lake Manyara (quoting Boshe 1989). The biggest threat to the sustainability of the Tarangire ecosystem is the encroachment of cultivation towards the migration corridors. The other corridors from TNP [Tarangire National Park] towards Kwa Kuchinja are even more serious threat. It is estimated that of the original 30 corridors only four were remaining by the early 1980s (quoting Gamassa, 1989) and the number now is even less.

Safeguarding the corridors and the survival of the zebra and wildebeest, and other wildlife, in Simanjiro Plains will depend on integration of wildlife in socio-economic needs of the local Maasai and other communities. Wildlife must provide tangible benefits to the Maasai. Tanzania National Parks is already providing an infrastructure for water supply, health and education. Mboret village is leasing out a photographic camping site. The government of Tanzania is reviewing the wildlife policy so that local communities can benefit more from tourist hunting and other types of wildlife utilization." [Kahurananga and Silkiluwasha, 1997]

> ***remaining area and consequently poorer living conditions of the resident Maasai".***

Changing migration patterns. Given the high annual growth rate in human population in the Tarangire Ecosystem of 4.6% between 1978 and 1988 as a result of in-migration (TCP, 1997), it can be expected that activities that impact on corridors will increase concomitantly over time. There is progressive increase in the human/livestock ratio. This has reduced or removed altogether the tendency of pastoralist to keep many livestock as sign of wealth, so-called prestigious overstocking (Prins, 1992). The human population outgrows the livestock population, requiring more land to be withdrawn from livestock and wildlife.

Over the last twenty years there is an increase in the population of ungulates that migrate from Tarangire NP to the Simanjiro Plains (see Box 4). In the case of wildebeest the increase is attributed to natural increase, as elsewhere, e.g. in the Serengeti plains (Kahurananga and Silkiluwasha, 1997), However, the increase could also result in part from changed movement patterns by animals who have lost their north-eastern corridor leading towards Livueki plains through Lolkisale. This inference needs further investigation. A monitoring programme has been proposed in this area (TWCM, 1994).

The situation outlined above indicates a trend by which the long-term capacity to maintain wildlife populations and other biodiversity resources of these two important northern Tanzania parks is being progressively compromised. Increased human activities is causing closure of the wildlife corridors, resulting in the parks' progressive isolation.

Financial contributions. The two parks, Tarangire and Lake Manyara, make a significant contribution to the national economy and in the servicing of less financially productive parks, i.e., parks which do not earn sufficient revenues to cover their functioning costs[2].
Over the last ten years they accumulated a total of 869,212 visitors bringing in a total of $13,096,689 (see Table 1). During this period, Tarangire NP earned some $ 5,733,699 from 302,255 visitors and Lake Manyara NP, $ 7,462,990 from 558,057 visitors. From these statistics, it should be appreciated that any circumstance that endangers the biodiversity and animal populations of these high-income generating parks will have an impact through the park system, with a ripple effect to reducing TANAPA's ability to maintain the system. Other financial impacts would likewise be felt on corporate, personal and tax revenues from tourism, and on country's foreign exchange earnings.

These two parks form the core of the ecological complex described above. Their conservation is of vital importance for the protection of biodiversity in the area, as well as for revenue to the government and to communities from wildlife utilization within and surrounding the parks. For example, during the hunting seasons of 1995/96 and 1996/97, tourist hunting earned from the Tarangire ecosystem, a total of $ 1,123,308. A quarter of this sum was given to districts from which hunting take place (see Table 2.).

---

[2] ***TANAPA centrally collects and allocates financial resources. Budget requests from each park are considered on merit, not on each park's individual income levels. This allows those parks which cannot collect enough revenue on-site to take advantage of those that earn a surplus.***

Table 1: Visitor and revenue statistics of Tarangire-Manyara National Parks

YEAR	MANYARA		TARANGIRE		TOTAL	
	VISITOR	REVENUE IN $	VISITORS	REVENUE IN $	VISITORS	REVENUE
87/88	42,180	449,911	7,290	116,679	49,470	566,590
88/89	43,720	320,755	11,911	85,844	55,631	406,599
89/90	53,924	525,354	15,717	184,232	69,641	709,586
90/91	49,743	625,792	23,866	394,471	73,609	1,020,263
91/92	55,367	710,733	28,878	423,766	84,245	1,134,499
92/93	52,885	689,316	32,305	581,310	85,190	1,270,626
93/94	62,612	725,787	45,338	844,109	107,950	1,569,896
94/95	60,028	951,707	38,704	932,538	98,732	1,884,245
95/96	61,651	1,027,833	43,792	1,025,233	105,443	2,053,066
96/97	75,847	1,335,802	54,454	1,145,517	130,301	2,481,319

TOTAL	***558,057***	***7,462,990***	***302,255***	***5,733,699***	***869,212***	***13,096,689***

Table 2: *+Revenue from tourist hunting in the Tarangire ecosystem in US $ for the seasons 1995/96 and 1996/97.*

Year	Total Revenue	25% to Districts	Beneficiary District	Amount to district
1995/96	508,976	127,244	Monduli	53,870
			Simanjiro	55,330
			Kiteto	8,070
			Babati	9,976
1996/97	523,332	130,833	Monduli	58,456
			Simanjiro	60,005
			Kiteto	6,006
			Babati	6,366
TOTAL	1,132,308	258,077		258,077

+ *Source: Wildlife Division*

C. PRIVATIZATION OF PARASTATAL PROPERTIES

C.1. Privatization process

Personnel of the Parastatal Sector Reform Commission, PSRC, informed the study team that all 15 of the NARCO properties are 'specified', i.e., under receivership by PSRC, and are slated for

privatization. PSRC said that the two northern zone NARCO ranches, Manyara and West Kilimanjaro, were in a second phase, due to be treated after a first phase that involves five other ranches in the coastal zone. Privatization of the first phase ranches has been unexpectedly delayed in its final stages, reportedly because of concerns in some quarters that too much land was being concentrated in one owner.

While the general process of decision-making for privatization was presented, no details on the tendering process for these properties were available to the team.

The team members were told that feasibility studies done for PSRC of the two northern NARCO ranches indicate economic viability for ranching, ecotourism and 'community participation' (not defined) although the feasibility studies themselves are said to be proprietary information and were not available for review. PSRC, and NARCO before the establishment of PSRC, have received a number of unsolicited proposals from companies proposing various joint ventures and land uses. PSRC would like to now make its own study prior to privatization.

All of this information might lead to the conclusion that no definitive decision will be made in the near term, but other sources caution against complacency. There appears to be no hard and fast regulations on some aspects of the privatization process. Also, the team heard rumors that could not be substantiated that some foreign investors have proposed buying all 15 of the NARCO properties at once, and that they may have already made such an offer.

C.2 Manyara ranch

Of the three parastatal/government lands in the target areas' wildlife corridors, the Manyara ranch is the largest and perhaps the most vital for wildlife movement, so it will receive the lion's share of attention. The phosphate mine is much smaller and perhaps no longer part of an active wildlife corridor. Even less is known about the government-held JKT base. These properties are treated briefly in following sections, as is the West Kilimanjaro ranch.

The Manyara ranch is located east of Lake Manyara and north of Tarangire NP (see figure 2). It is surrounded for the most part by Maasai pastoralist villages including Islalei village to the north and north-west, Mswakini village in the south and Oldukai village to the west. Oldukai and west Islalei form a buffer between Lake Manyara and the Manyara ranch.

History. From time immemorial, this area was simply part of the communal pastoralist lands in this area. In the mid 1950s an American company Farrab Inc. negotiated with the pastoral community in the area, and became the first titled owner of the property now known as the Manyara Ranch. Thus, in 1956 the company obtained a 99 years lease of this land with Certificate of Title No. 11337.

In 1974 the Ranch was transferred/sold to M/s G. & J. Damm Ltd. of George Damm. He owned it on the same 99-year lease certificate. On the ranch were constructed a boarding primary school and dispensary. It is not clear from records whether these were erected by George Damm or the previous owner. However, George Damm provided the school and dispensary services to the neighboring pastoral Maasai.

While today no local communities' subsistence cultivation takes place on the ranch, some Maasai elders from neighboring communities claim that during the days of George Damm they were allowed land for subsistence cultivation. The elders claim also that they were allowed some access to pasture, a practice that has continued to date, probably under different conditions.

Records have it that George Damm sub-leased a small portion of his property to a certain expatriate bean farmer. When Mr. Damm died in 1974, the property passed to the government.[3]

At the time of George Damm's death, the ranch sustained 8,000 head of cattle and 12,000 sheep, compred to a present-day carryig capacity estmated at 6,000 livestock units. All the livestock was handed over to National Agricultural Company in 1974 and later in 1977 management changed to National Ranching Company, NARCO. A year later in 1978 the sheep were transferred to West Kilimanjaro Ranch, which still maintains a sheep population. Today the Manyara ranch holds 1,350 cattle.

Problems with ranching. Seven important problems have faced the ranch which led to the noticeable decrease in the number of cattle held at the ranch.

* *Some parts of the ranch are infested with tsetse flies which cause considerable disease problems, especially trypanosomiasis.*

* *An increase in tick borne diseases, attacking cattle and causing significant deaths. These problems were compounded by lack of veterinary services and medicines due to low operational budgets.*

* *Some drought periods were severe, to the extent of starving a sizeable portion of the herd.*
* *A progressive deterioration of infrastructure in the ranch, including dams that hold water for livestock. When the ranch was taken over by NARCO, it had 19 dams. Now only three are functional. Thus, during particularly harsh dry seasons, the ranch experiences an acute water shortage.*

* *Due to very low investment, no active range management has taken place in the ranch this decade. This has resulted in poor range conditions and led to bush encroachment in some parts. Bush invasion encourages tsetse infestation and increases in numbers of some carnivores which attack the stock.*

* *Low functioning budget and no investment have resulted in poor working conditions of the ranch staff, thus affecting their efficiency, production and motivation.*

* *Over the years that the ranch has been in the hands of NARCO, it has suffered from cattle rustling. A significant portion of the stock was reduced through this off-take method.*

Wildlife. All along, wildlife has been tolerated by the ranch management. The northern migration corridor from Tarangire NP towards the north end of Lake Manyara is situated right across the Manyara ranch. Migrating wildlife profit from the ranch for peaceful transit since there are neither settlements nor encroaching cultivators (Borner, 1985). Today, small-scale

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[3] *On 5 March 1974 George Damm was murdered. It was claimed he had written a will which requested that his lands be passed to the government to continue the services to the Maasai communities, and their access to the land. It appears that the will was never found, and it is believed that news of its contents was brought to the government's attention by Maasai elders who were close friends of the late rancher.*

workers' cultivation takes place close to the ranch headquarters, which is located in the southeast of the ranch.

It seems that the wildlife and the pastoralists may have benefitted from the relatively low productivity and low levels of use that the ranch has experienced over the past 25 years. More intensive management practices might lead to fencing and exclusion of competing livestock. However positive this may have been in some regards, the neglect and abuse in terms of tree felling for charcoal burning has certainly reduced the habitat and property value in the 1990s.

C.3 Minjingu Phosphate Mine

The phosphate mine occupies 1,750 ha within the Minjingu village west of Tarangire NP. Originally the land was acquired to utilize an area of about 350 acres for the mining activities, with the rest set aside for workers' residence, for small-scale cultivation and other activities of the mining community.

The property belonged to STAMICO the holding company of the Minjingu Mining Company. It is said that the property has been advertised for sale, but that no acceptable bids were received. It is known that the mine has been idle for several years since the fertilizer plant in Tanga, which was its only client, closed.
This property is within the Lake Burungi wildlife corridor that continues to the south of Lake Manyara corridor (see figure 3). The extent to which its existence affects the corridor has not been well established. However, the area is utilized by resident species and short-distance local dispersal from the park.

C.4. The Government Special Use area formerly occupied by JKT

From the inquiries made during this study, it appears that this property is not well defined. The team could not get reliable data on its exact size or location. One former employee reported that the base is about 2000 acres in size (Peeters, per. comm.), although other sources believe it to be much larger.

After JKT stopped using the area several years ago,the government has allocated a portion of the buildings and land for the establishment of a boys secondary school. It is not clear what will happen to the remaining part of this property that is not under use by the school.

The base is apparently located adjacent to the Manyara ranch, north of the road from Makuyuni to Mto wa Mbu. This location is in the corridor linking Tarangire NP with dispersal areas to the north. It was suggested that in terms of wildlife corridor design, it would be best if this property were annexed to the Manyara Ranch to make a continuously protected corridor habitat (assuming that the Manyara ranch is maintained for this purpose after privatization).

Several people interviewed were of the opinion that the remaining buildings and the natural area might be put to use as some kind of wildlife education or training center for students, researchers, ecotourists or others interested in deeper understanding of this beautiful, important and threatened environment. A center for the study of wildlife corridors is one possibility. Yet, without more knowledge of the site and its intended future use, such ideas are only speculative at this point.

C.5. West Kilimanjaro ranch

Geographically separate from the main area of this study is the other northern zone NARCO property slated for privatization, the West Kilimanjaro ranch. It lies at a strategic location for wildlife movement, being north of Arusha NP, west of Kilimanjaro NP and south of Kenya's Amoseli NP (see Figures 1 and 5), although wildlife movement from Arusha NP is now greatly restricted by expansion of agriculture on Mt Meru's lower slopes. This ranch is bordered by a smaller livestock research station that was formerly owned by the Tanzania Livestock Research Organization, TALIRO. Little was learned about the TALIRO property during this study.

Much of what was said about the Manyara ranch applies to this NARCO property as well, in terms of neglect over recent years, rampant tree felling for charcoal, overgrazing in some sites and other negative resource uses. It also is similar in that is near but not contiguous with national parks, and has nearby resident pastoralists who value the pasturage which historically was theirs.
Not identical to Manyara. West Kilimanjaro ranch differs from the Manyara ranch in some important ways. Some 75,000 acres in area, it is nearly twice the size. It is also closer to more intensive human land use, and is suffering from all the resulting pressures, including agricultural squatters.

One important example of this human pressure is the dramatic reduction in surface water. As recently as the 1960s water flowed from the mountains in two permanent rivers to the ranch and adjoining plains. Due to increased water demands for irrigation, there is virtualy no water in these rivers now, which has increased conflicts among pastorists sharing the same shrinking rsouce base. West Kilimanjaro ranch and the TALIRO station have several boreholes and a pipeline that leaks in places forming large ponds (Poole and Reuling).

Given the small size of the NARCO sheep and cattle herds on the ranch, an informal payment system has been worked out allowing pastoralists to graze their cattle on the underutilized pasture lands. When intercepted by the ranch personnel -- which is not all that likely for a thinly staffed property of 75,000 acres -- the Maasai pay a 'fine' of 1000 Tsh (about $1.50) per head (Maasai herdsman, per. comm.).

The fate of this ranch, like the other NARCO properties, has been in limbo for the whole of this decade, leaving it exposed to all sorts of excessive exploitation. Like Manyara, it could have a key role in maintaining and perhaps enhancing the movement and populations of wildlife, if it were privatized for compatible uses.

C.6. Future control options

A number of options for the future use of the parastatal properties in question were proposed to the study team, and some additional ones have been developed during the course of this study. Each of these is presented below, with a brief analysis of the apparent advantages and risks or constraints they might face.

Several principles guided the analysis of advantages and risks:

* *Wildlife movement and wildlife general use must be protected and encouraged at least at current levels and if possible, enhanced.*

* *Given that low levels of livestock rearing is widely considered to be compatible with wildlife movement, and that pastoralists have historic rights on these lands, pastoralist must be allowed to continue their customary use of the properties for dry season grazing, coordinated with other agreed land uses.*

* *Future arrangements should have a high probability to continue in perpetuity, i.e., minimal risk to loss of wildlife and pastoral uses during a 99 year lease.*

The analysis is also done in the framework of the study team's understanding of the privatization process, in particular that the companies are to be returned to financial health as viable enterprises, and perhaps that the properties move out of government hands altogether.

Option 1: Give it back to the people. To some interviewees this is a politically attractive, culturally rewarding option, likely to reap gain in food and livelihood security for the customary owners, at least in the short term. Not only does it seem fair, but it would likely mean wildlife use would continue. The risk is a repeat of the Simanjiro and Lolkisale land grab and intra- and inter-village conflicts (see Box 2). Long term protection would not be assured. For example, village councils, and perhaps village assemblies as well, could decide to divide up the land among the villages concerned; or they might give in to economic pressures to allocate land for agriculture.

Option 2: Acquire it for TANAPA as a National Park. In this option, protection and conservation would be maximized, so long as the animals are within park boundaries. The risks and issues include strong local opposition due to exclusion of other users from national parks; crowding neighboring lands so much that it could endanger wildlife movement through adjoining corridor segments; and a lingering questions of PSRC acceptance of privatizing to a governmental entity.

Option 3: Acquire it for TANAPA as special status area. Advantages include good to excellent wildlife protection; potential for multiple uses that allow Maasai access. At issue is TANAPA's right to such management activities outside national park boundaries, and the risk of conflictual relationships with local communities, as have been experienced in the Ngorongoro Conservation Area by the NCA Authority, NCAA.

Option 4: Acquire it for another governmental entities (such as district council) as special status area. As for option 3, this might provide for protection and multiple use by local pastoralists. The risks are that such an entity, perhaps a popularly elected one, may not sustain long-term commitments to conservation; and that abuse of power, as has occurred over land leases in the area, could be repeated.

Option 5. Tender it for long-term lease for ecotourism by private firm(s). Some interviewees see advantages in getting professional business people with strong conservation principles (backed by stringent lease conditions) as a way of combining wildlife protection and pastoralist access with job creation and tax revenue. Risks and issues include the possibility of non-compliance leading to reduced wildlife protection and Maasai use; some sad experiences with ambitious land deals (see Boxes 5 and 6); a strain of national sentiment that seems reluctant to have more high visibility property fall into the lands of foreigners (although national companies might win the bid).

Option 6. Tender it for long-term lease for hunting by private firm(s).
This option might be thought of as a variation on option 5. Advantages are similar to those in option 5, as there would be a clear self-interest to exclude poachers and preserve habitat. Risks and issues are that hunting prevents other users on seasonal basis; that if not tightly controlled it might damage wildlife populations and negatively impact wildlife movement.
Option 7: Tender it for its current use as a ranch. Ranching so far has permitted both wildlife and pastoral uses to some degree, and might continue to do so (see also Box 6). The risk is that if ranching were attempted on a commercial basis, it would only make sense to exclude competing grazers, be they wild or domestic. Fencing is normal on commercial ranches, so non-ranch animal access would probably be limited; finally, the financial viability of modern ranching is far from proven in northern Tanzania.

Option 8: Acquire it for a parastatal like NCAA. This option resembles options 4 and 5, with some people thinking a purpose-specific governmental agency might be a better base for long-

term protection. The risks are the same ones facing NCAA, which some sources feel has become bureaucratic and less able over time to deal with the complexities of its management challenge. The meaning of privatization is again raised.

Option 9: Acquire it for a Tanzanian Land Trust with joint management. This option calls for the creation of an independent, non-governmental Land Trust that would hold the properties on long-term leases and manage them jointly with the concerned communities, including sub-leases for ecotourism and other non-consumptive uses. Advantages would be strong wildlife and pastoral use protection, a basis right in the corridor to support WMAs and other community conservation efforts nearby, and a business-like approach to 'protection with profit'. The risks are that it will take time to organize and register a new Trust, and that the idea is untried in Tanzania.

When a rancher has a particularly bad year due to drought or wildfire, that rancher can give his/her own land a Arest≅ by paying to run cattle on the grass bank ranch. Since ranchers ae too poor to pay in money for this service, the value of the grass his cattle eats from the grass bank land is computed and the rancher pays by putting an equal value of his/her own land in an easement that prohibits subdivision for uses other than ranching in the future. The changer still owns his land but he or she gives up the future right to sell it for some other purpose than pasture. The rancher using the grass bank gains by keeping the herd together in bad times, and the grass bank ranch organization gains by helping preserve rangeland for future generations.

Comparisons between US cowboys and Maasai in Tanzania may seem far fetched at first, but they do share the problem of access to grazing land, especially in the harshest dry season, such as the one experienced here in late 1996 and early 1997. Likemost herders, Maasai run as many cattle as they reasonably can on their own lands in most years, and suffer in bad times. And like pasture land in other countries, Maasai lands are being reduced by other land uses to the point that traditional practices for drought management no longer work as they once did. New strategies must be developed to take into account the loss of mobility and land.

The Manyara and West Kilimanjaro ranches already serves as a kind of dry season bank for some pastoralists, even though the arrangements are informal in the extreme and the access is really based on the management failure of NARCO more than an intentional plan. In the future, as land pressures get ever worse for the Maasai, it might make sense to set aside some grass bank lands, perhaps on the former NARCO ranches, and combine it with income earning activities like ecotourism. Reciprocal arrangements with pastoralists could help ensure that >payment= in the form of improved herd management, controlled use keep the grass bank solvent, i.e., not over grazed and available, in times to real need. The >easement= that Maasai provide might be their continuing commitment cohabitation with wildlife, i.e., no subdivision for farming or other uses, so that some of the marvelous northern Tanzania biological system will so that some of the marveolus nrthern Tanzania biological system will survive for future generations.

Source: D. Dagget, ABeyond the Rangelands Conflict≅ 1995

D. PRIVATIZATION OF VILLAGE LANDS

The team was asked to take a brief look at other land use changes in the Tarangire ecosystem that might impact wildlife movements. With precious little time, and with the eastern side of the park isolated more than usual by record rains, the team was reduced to collecting impressions from documents and interviews.

For over a decade, the north and eastern sides of Tarangire NP have suffered from land grabbing and a number of large scale programmes and projects. To mention the most infamous case, a ranch of 381 acres, spreading from the boundary of Tarangire NP-Lolkisale-Simanjiro GCAs to Makuyuni, crossing the north-south road to the Losimingori mountains was granted in 1979 (See Boxes 7 and 8).

The government put a moratorium to review this project and it seems it was not implemented as planned. Nonetheless, cultivation and large scale bean farming has devastated this area to

the extent that the former north eastern route through Lolkisale towards Livueki dispersal area is almost severed.

More recently, the area south of Monduli popularly referred to as 'eneo la Jeshi' was apportioned and allocated to some 89 persons, in plots of between 100 and 45,000 acres, totalling some 515,574 acres. Of this area, 490,474 acres are already under long term lease condition, owned by 67 individual leases.

Similarly in Simanjiro, expanses of land has been allocated to private large scale farmers who mainly cultivate beans. Areas affected by this kind of land grabbing include, Naberera, Loiboir Siret and Loiboir Soit. Some private enterprises have negotiated their way through village government mainly to acquire the lands, while others worked at district or higher levels. In Simanjiro, 102,847 acres have been allocated/leased out to some 80 individuals/leases.

Already these farms have denied the local Maasai pastoralist their traditional grazing areas and water points. With time these poor Maasai become more and more marginalised, to the extent that some villages are left within a radius of about five kilometers (see Box 9). As has been observed above, the effects of marginalisation of the Maasai and denial of their access to the pastures befalls also wildlife.

In April 1979, a company by the name of Rift Valley Seeds Ltd. was offered a right of occupancy over a total of 381,000 acres of land known as Laigwanani Ranch situated between Makuyuni and Lolkisale in Monduli District and Simanjiro in the then Kiteto District. The land lay to the north and northeast of Tarangire National Park, extending some 40 miles from north to south and 20 miles east to west and covering just under 600 square miles. The offer was for a period of 99 years and the land was to be used >solely for pastoral and agricultural purposes Ψ and purposes ancillary thereto=. [Confusing this story is three other leases to the same company, reportedly including one for 154,190 acres in the same general area.]

Certain of the conditions to the offer were indeed >special=, if not strange. Clause 5(ii) of these >special conditions= stated that: The land under the Right being situated in a Game Controlled Area, the occupier shall abide to the provisions of the Wildlife Conservation Act and to the regulations made thereunder or to any enactment in substitution thereof, save that subject to the provisions of section 50 of the Wildlife Conservation Act, the occupier shall: Kill any animal within the land under the Right in protection of life and property. Surrender to the Government any valuable part from such animal killed and report be made to the nearest Game Officer within a reasonable time. Expel out any animal which shall be found in or entering the land under the Right.

Under clause 5(iii), the occupier was required, within a period of five years from the date of the grant and thereafter, to >keep cleared a strip of land of uniform width of one thousand metres along and aside the boundaries of the land provided the occupier may cultivate and plant the strip or take such measures as are expedient to prevent generation of vegetable (sic) liable to harbour tsetse fly on the land=. This latter condition involved the occupier in bush clearing of a strip more than half a mile wide and over 100 miles long, ostensibly to control tsetse fly!
(Continued in Box 8)

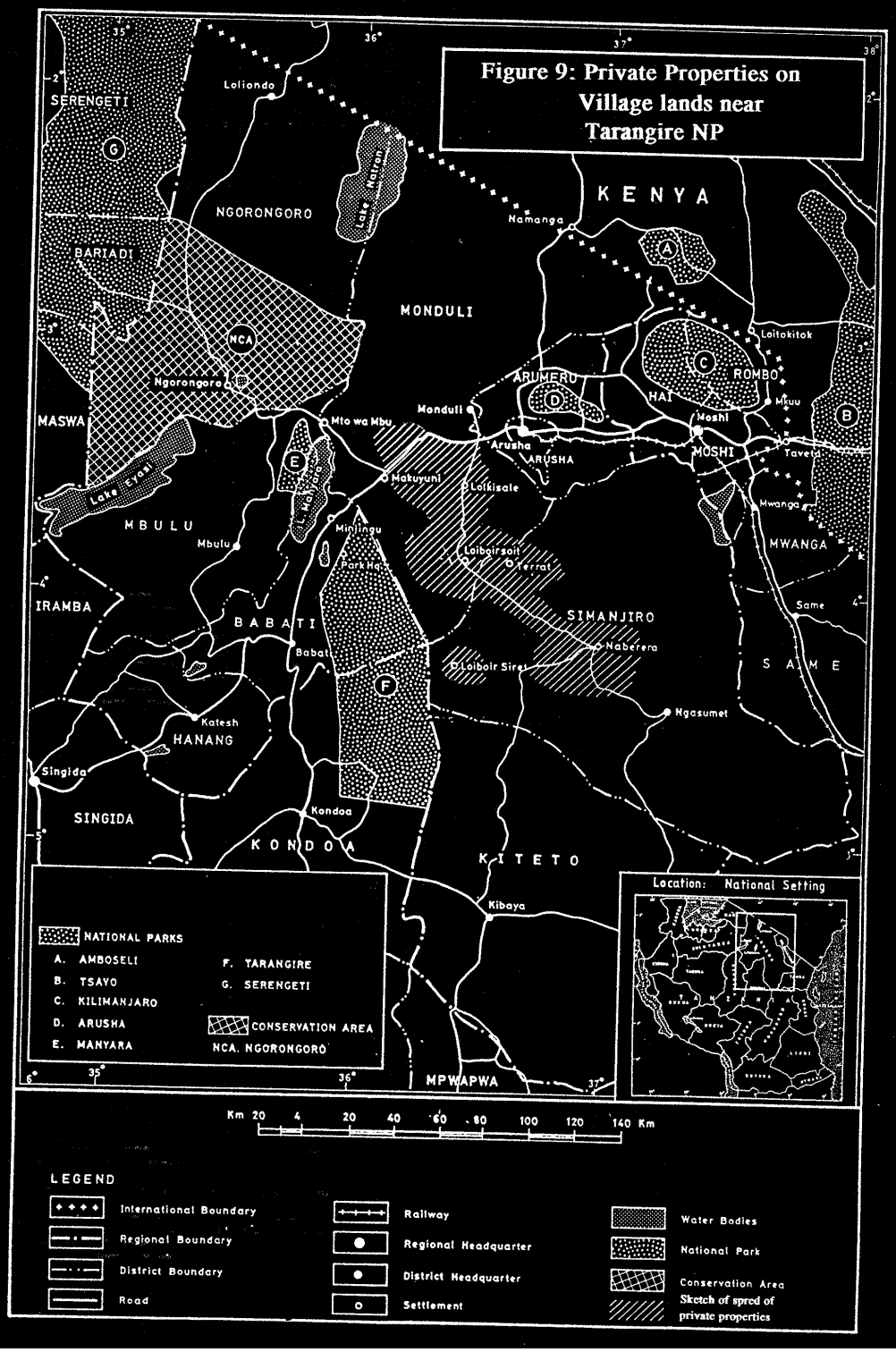
The grant also incurred the wrath of wildlife conservationists. In a persuasive article published in 1985, Dr.Markus Borner of the Frankfurt Zoological Society, raised the spectre of >the increasing isolation of Tarangire National Park=. Dr.Borner argued that this allocation >would cut right through the eastward migration routes and would have disastrous effects on Tarangire wildlife=. He also argued that the Maasai grazing lands B ***already under pressure from large scale seed bean farmers and small cultivators - would shrink even further, resulting in over-use and deterioration of the livestock pastures.***

In 1982 and before any of the conditions of the offer could be fulfilled, the Managing Director of the offeree of the grant, a German national by the name of Hermanus Stein was declared persona non grata and deported from Tanzania, his lease revoked and transferred to NAFCO, a state-owned grains producer, by an Act of Parliament. Thus NAFCO inherited both the rights and conditions which were attached to the Stein lease. By the mid-1980s, it had become clear that NAFCO could not run this huge land holdings, especially its southern end, where the conditions concerning clearing, cultivation and wildlife control were not fulfilled. [It seems Mr. Stein eventually received compensation for this property and return of another parcel(s) that had actually been surveyed. A 1994 PSRC document lists the Rift Valley Seed Company as 'returned in part to former owner'.]

By 1988 NAFCO had pulled out of the area completely, leaving it to land grabbers who have used their leverage with district and regional bureaucracies to obtain substantial allocations of land in the area. In the course of this investigation, the team was shown a list of 89 individuals who have received offers of rights of occupancy of between 100 to 1000 acres in the southern part of the original Stein lease. This area has now been under the plough and farming is rapidly advancing further south, threatening to cut off the wildlife dispersal and calving areas in the Simanjiro Plains from the rest of the Tarangire ecosystem. Borner seems to have been proven right: That large scale commercial farming in the Lolkisale B ***Simanjiro plains poses the greatest danger to wildlife and to the Maasai pastoralists.***

Source: Borner, 1985; Fosbrooke, n.d.; PSRC 1994

space for figure 9



A visit made by pastoral participants in a 1994 workshop to Naberera and Irkidomungan lead to the following group observations:

"Land grabbing is most evident... Much of the wet season grazing areas formerly used by pastoralists have already been allocated for farming [quoting Muir, 1994]. This has reduced the availability of pasture for pastoralists, changed the grazing patterns and limited access to water sources. The land has been mainly allocated to non-Maasai interests including foreign and transnational corporations that show little interest or respect for local land users. For example it is alleged a Dutch seed company was initially allotted 7,000 acres of land for growing beans, but it now farms an estimated 19,00 acres!

"Bordering Tarangire NP, pastoralists also have to contend with wildlife who move on to the pastures outside the park during the calving period. Wildlife bring with them diseases and infections to livestock and they reduce the area of pasture available for cattle. At the same time there is no reciprocal access for the Maasai to pasture in the park.

"As a result of increasing land alienation, the main problems identified by the participants were:

**** local resources could no longer sustain their (Maasai) way of life***
**** The traditional grazing system has been destroyed. The system of reserving areas of pasture for calves and sick animals has broken down***
**** The traditional leadership have lost power.***
**** People's freedom to participate in decision-making and planning has been eroded.***

"Irkidomungan village is virtually surrounded by farms. Grazing has been reduced to a five kilometer radius and the Dutch bean farms have deprived them of important wet season pastures. The farms have also blocked access to four dams and some salt licks. The Shokut farm has also blocked off four dams, and the Gerald Muller farm another three dams. Therefore a total of eleven dams have been lost to farming and the village is now reliant on only two sources of water which previously were only used during the dry season. Discussions revealed that the farms had also cut off access to certain sites sacred to the Maasai."

Source: Bradbury, et. al. (1995) "Working with Pastoralist NGOs and Land Conflicts in Tanzania" report of A workshop held in Terrat, Tanzania 11-15 December, 1994.

Without going into greater detail, it seems evident that unless land use planning is instigated at village levels with more democratic and transparent methods than generally used to date, this situation will not get better. It should not be lost on conservationists that, as the Maasai go, so go the wildlife in the Tarangire ecosystem. Amidst the bad news about dwindling wildlife movement and shrinking pastoralist space, there are some hopeful signs.

In Simanjiro, the Land Management Project LAMP is systematically assessing the activities of medium and larger farms to see if location, size, and land use match the leases, including conditions for keeping the land in good shape. This could become an important tool for the understanding the extent of abuses and for beginning to confront the abusers. (Kahurananga, pers. comm.)

Close to Tarangire NP in the Maasai village of Emboret, the village assembly threw out village council members found to be misappropriating funds, and are demanding a higher standard of

behavior. Dorobo Tours has a five year 'use contract' with that village for non-consumptive tourism. The brothers who own and manage this company, and who recently established a non-profit Dorobo Fund, are exploring 'the border between private business and non-profit initiatives' as they work on institution building at community levels in the villages where they also demonstrate the potential for low impact tourism. (David, Thad and Mike Peterson, pers. comm.)

These and a handful of other examples show the potential -- people who figure out what needs to be done, and set about doing it. So it comes back to practice as well as policies and privatization in the struggle to keep some lands open and wild.

E. NEXT STEPS

For those stakeholders who wish to have an impact on the privatization of the properties in wildlife corridors, the following list is a point of departure. Its general thrust is to become assertive and inventive in the defense of the corridors and dispersal areas.

It should be evident that no single party is in a position to accomplish all or even most of these tasks alone, hence the call for concerted action.

I. Identify the stakeholders in very specific terms, i.e., names, relationships, and 'stakes', and gather them for consensus building and planning. If possible, work out a statement of common purpose and an agenda.

2. Develop a task force of interested parties based on stakeholders' common agenda; divide up key tasks and activities; work out mechanisms for continual communications.

3. Set up a monitoring program for the properties in question to monitor activities contributing to resource depletion, i.e., unauthorized tree felling, charcoal burning, animal poaching, clearing for agriculture, excessive grazing. Make the findings known to appropriate authorities at all levels.

4. Through senior level authorities in government: get an accurate reading on the current status and future plans for privatization for key properties in wildlife corridors, and determine how a 'hold' might be put on any final negotiations until the concerned conservation and donor community determine how to best guarantee long-term corridor viability.

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5. Carry out a lobbying campaign aimed at PSRC and other pertinent parties in government, urging them to establish and implement stringent environmental criteria on parastatal decisions and to set verifiable, enforceable environmental conditions on any resulting long-term lease agreements.

6. Conduct a thorough review of all statutory, regulatory and judicial actions, i.e., laws, policies, ordinances, proclamations, guidelines, decrees and juridical precedence, that bear on the privatization process in order to establish the legal basis for opposing privatization that may be inimical to the maintenance of wildlife movement.

7. Devise and carry out a public media campaign in both written and broadcast media; write unsolicited articles, letters to the editor; involve journalists in publicizing the issues, such as: current abuse of parastatal lands and possible impacts of privatization in terms of local pastoralists,biodiversity, tourist income. Provide them with still photos and video footage if necessary.

8. Learn about corridor requirements for relevant wildlife species utilizing various corridor and dispersal areas, so that cogent arguments can be formulated with scientific

accuracy, and so that corridor segments currently outside of any formal protection regime can be developed and maintained for the species in question.

9. *Carry out detailed analysis of existing farms in Lolkisale as the Land Management Project, LAMP, in doing in Simanjiro, relating the terms and conditions of the titles to the actual location,size, land use and any lad degradation. Report irregularities to the proper authorities at village, district, regional and national levels. Since specific land uses and the requirements of maintaining or returning land to its original state is reportedly a condition of all leases, this could be a powerful tool for dealing with offenders.*

10. *Push ahead with community-based conservation efforts in and around the corridors, so that all the vital areas will eventually come under some form of collaborative management to the benefit of wildlife and humans.*

11. *Learn what has been attempted and what seems to work well in terms of protection for privately held lands elsewhere in Tanzania, throughout the region and in other parts of the world, particularly for the most difficult area of institutional arrangements. From this develop a 'best practices' approach to how wildlife corridors might be maintained and enhanced in northern Tanzania.*

12. *Involve the donor community and other influential international agencies in accomplishing the common agenda. Those with an obvious involvement in this geographic area include Royal Netherlands Embassy, USAID, Global Environmental Facility, European Community, Swedish SIDA, and UNESCO, among others. World Bank and International Monetary Fund should also be contacted, given their role in promoting the privatization program. Perhaps a concept like the Debt-for-Nature swap might be devised for key properties.*

13. *For those who want to explore the possibility of a Tanzania Land Trust as an independent mechanism in conserving threatened lands: contact the known experts in this field such as The Nature Conservancy; explore what national institutions have been successful in this kind of endeavor; look into the legal options within Tanzania; begin to establish a core group willing to work towards this vision; approach the kind of senior people (both Tanzanian and international) whose patronage and assistance would raise the idea to the level of cause for national pride and action.*

14. *Develop a culture of sharing data and ideas rather than hoarding information. Start with the widest useful circulation of this paper.*

The final outcome. Everything will depend on the results of the steps proposed above, and other actions undertaken. This report has not taken a position on what should happen, and it appears that there is no one perfect solution that has broad consensus at this point.

It is clear that what will happen can be influenced, if not always controlled, by those willing to act. If the conservation community makes a concerted effort, the outcome could be very positive indeed.

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ANNEX B

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