

Social Soundness of the Masai Livestock and  
Range Management Project

by  
ALLEN HOBEN  
Senior Anthropologist for Policy  
Bureau for Program and Policy Coordination  
Agency for International Development

for  
The USAID Mission in Tanzania  
October 1976

SOCIAL SOUNDNESS OF THE MASAI LIVESTOCK  
AND RANGE MANAGEMENT PROJECT

Prepared by Dr. Allan Hoben

FPC/PDA/CP

for

THE USAID MISSION IN TANZANIA

October 1976

## TABLE OF CONTENTS

	<u>Page</u>
I. <u>Introduction</u>	1
II. <u>Traditional Ecological and Social Organization</u>	4
III. <u>The Transformation of Traditional Masai Society</u>	9
History	10
Competing Modes of Utilization of the Area	13
Masai Response to Modern Pressures	15
Recent Developments in Kiteto and Monduli	22
IV. <u>The Masai Project</u>	26
Project Design	27
The Masai Response	30
Overstocking and Cattle Marketing	34
The Establishment of Ranching Associations	40
The Decline of Ranching Associations	44
V. <u>Villagization and Resettlement</u>	51
VI. <u>Conclusions</u>	68
VII. <u>Recommendations</u>	79
VIII. <u>References Cited</u>	85

## I. Introduction

The purpose of this report is two-fold. It is intended to contribute to the formal documentation procedures required for the revision of the Masai project. At the same time, it attempts to raise a number of fundamental issues concerning Masai social organization and economy that should be considered on an on-going basis by the project management and the USAID mission in Tanzania.

The frank discussion of human and ecological problems facing the Masai project should not be interpreted as criticism of the project or its staff. On the contrary, from its inception, as is indicated in the 1968 USDA feasibility study, the 1969 PROP, and Oleen Hess' 1975 project report, the project has been ahead of its time in attempting to understand Masai culture and social organization and in trying, with considerable success, to encourage broad-based participation by the Masai themselves in project planning and implementation.

In raising candidly the most basic and hence most difficult problems that face the Masai and that affect their response to the project, this report also is an attempt to strengthen attempts within the Agency to make a more honest assessment of our projects and to learn more from our past experience.

Lest the frankness of the report be misinterpreted, it should be stressed at the outset that despite the numerous problems that have been identified here and in the Utah evaluation<sup>1/</sup> the overall impact of the project on the Masai people has been very positive. It has helped them to become more fully aware of their increasing environmental problems and of new technologies that can help them solve these problems. Moreover, it has helped them to realize the utility and necessity of becoming more closely integrated into the Tanzanian economy and policy if they are to reverse the trend of increasing eco-stress and deteriorating standard of living.

The central issues raised in AID's requirement for social soundness analysis are: how will the intended beneficiaries of a project perceive its costs and benefits in terms of their social, economic, and political interests; will the project have a spread effect, that is, will it serve as a model for similar development outside the project area after the completion of the AID project; and what will be the economic and political benefit incidence of the project?

---

<sup>1/</sup> Utah State University team, 1976

In order to answer these questions, it is necessary to identify the scarce resources in the socio-economic system being analyzed, the way that access to these resources is structured by local institutions, and the strategies by which individuals and groups pursue their interests in this institutional context. An underlying assumption of this approach is that the behavior of rural people in the contemporary LDCs is shaped significantly by the pursuit of material interests, whatever else they may regard as their ultimate goals.

Despite a considerable amount of anecdotal "wisdom" to the contrary, this assumption applies to the economic behavior of the Masai. In-depth research on the Masai by Dr. Alan Jacobs and by the Masai project anthropologist, Colby Hatfield, indicates that the Masai livestock owners' animal husbandry practices and economic strategies represent a rational adaptation to the resources presented to them by their environment and the social and political institutions that control access to these resources.

This means that Masai economic behavior cannot simply be attributed to custom or to their "traditional attitudes" but must be understood in terms of familiar concepts, such as risk aversion, maximization of returns on labor, savings, capital formation and investment in an unfamiliar ecological, social and cultural setting. In other words,

it is necessary to view enduring patterns of Masai economic behavior as the result of self-interested decisions and to understand the way that Masai social organization ecology and the wider political and economic environment of contemporary Tanzania provide the context in which these decisions are made.

## II. Traditional Ecology and Social Organization

In the past, until recent times, the pastoral Masai inhabiting the Great Rift Valley areas of Kenya and northern Tanzania were semi-sedentary dairy herders whose diet was based almost entirely on fresh or curdled cow's milk-- sometimes supplemented by steer's blood-- (80 percent) and meat. Indeed, they had strong prohibitions against eating agricultural products, fish, or wild game. These food tabus were based on religious and cosmological beliefs and served as symbolic cultural diacritics by which the pastoral Masai maintained their separate identity from other Maa speaking peoples, including the Arusha, the Baraguyu the Samburu, the Njemps and the Dorobo. As recently as the past 25 years, the pastoral Masai possessed an average of 14 head of cattle per capita or 125 to 140 head per family of eight to ten persons. In addition, they had goats and some sheep probably making them the wealthiest pastoralists in East Africa.<sup>2/</sup>

---

<sup>2/</sup> Alan Jacobs, 1975

The complexity and diversity of Masai herding systems varied with the local environment and historical circumstances. In general terms however:

...they involve transhumant herd and family movements from permanent river, well, or spring water supplies to temporary, outlying, low-potential, wet season grazing areas based on rain ponds and other temporary surface water supplies.<sup>3/</sup>

The three most important resources in this traditional Masai subsistence system were rangeland (particularly, dry season rangeland), permanent water supplies, and livestock. Control over these resources was vested in the most important units of Masai social organization, the tribe, the locality, the boma or cattle kraal camp, and the family. The extent to which these organizational units have retained their social and cultural importance, have been modified or have been weakened is related to changes in the regulatory rights they exercise over these resources. Similarly, the vitality of newly introduced forms of social organization, the Ranch Association and the resettlement village has been closely related to the extent to which they have been accorded rights over these same resources and over new resources that are being made available by the Tanzanian government and the Masai Project.

---

<sup>3/</sup> Ibid., p. 417

Traditionally, the Pastoral Masai were divided into a number of discrete tribes (sometimes referred to as sections or olosho). Each tribe had "its own territory and autonomous political structure based on a tribally organized age-set system."<sup>4/</sup> As Jacobs notes, the tribe was the largest political unit capable of common military action in defense of its territorial rights:

Each tribe organized its age-set system separately, and individual male heads of compound polygynous families secured rights to communal grazing and water within their tribal boundaries by initiation into a specific tribal age-set. Families of one Masai tribe were prohibited from grazing their herds in the territory of another without first securing the latter's approval. Though in periods of drought or famine, there was often institutionalized sharing of each other's resources, and occasionally some changing of tribal affiliations, families generally grazed solely within their own tribal territory and were prepared to defend these boundaries by force, if necessary, against unauthorized intrusions.<sup>5/</sup>

The locality or sub-section was a social unit consisting of the families that depended on local permanent water sources. Though the individual bomas in a locality were spread over the countryside, it was the effective local face-to-face community that exercised most immediate forms of social control and grangement functions.

---

<sup>5/</sup> Ibid., p. 414

Each tribe was itself divided into a number of named localities (enkutoto), each with its own permanent water supplies for dry season grazing and clearly defined boundaries for wet season pasture, within which families practiced an essentially transhumance mode of pastoralism. Each locality was organized politically with its own "council of elders" under the leadership of its own local age-set "spokesmen." Though in theory the locality could not be said to own land in the same sense as the tribe--that is, could not prevent fellow tribesmen of other localities from grazing within their locality--in practice, the fact that each locality was a self-contained ecological and socio-political unit enabled its local leaders to manage its resources and public affairs as if they did own the land.....

...Though localities vary enormously in size and population depending on local environment and other factors, an average locality consists of about 300 square miles (200,000 acres) with 1,000 persons (or roughly 125 families) in possession of about 19,000 livestock units.<sup>6/</sup>

The most important unit of cattle management, though not of ownership, has been the boma or cattle camp;

Within each locality of a tribe, the principal unit of livestock management is the "kraal camp", consisting of several independent polygynous families who have joined together mainly on the basis of geniality and common interest in the economic exploitation of their immediate vicinity. Kraal camps are also the basic units of settlement and the principal centers of domestic life. Each camp is surrounded by a circular, thorn-brush

---

<sup>6/</sup> Ibid., p. 415

fence, and entrance is made through a number of separate gates, each owned by an independent family.... A typical camp will consist of six to eight families, some 50-80 persons, and often as many as 1200-1500 livestock units, of which a large number are cattle.....

While ownership and control of livestock reside solely with individual families, it is a measure of the common economic interest and genial cooperation that characterize kraal camp organization that the camp's entire herds are generally pastured and watered together as a single herd, and always corralled communally at night in the open center of the camp for protection against predators. Elders meet daily to discuss herd movements and to determine whose sons will act as herdboys and which elders will supervise them.<sup>7/</sup>

Jural rights of ownership of livestock were (and are) vested in the male head of a family. While he retains the rights, in principle, to dispose of his livestock as he pleases, in practice he allocates most of them to his wives through whom they eventually pass to his sons. His jural right to re-allocate his livestock or sell it is limited by the dictates of prudent family management, for his wives and their sons have a strong interest in obtaining what is, by customary right, their fair share.

The further details of livestock ownership need not be discussed here but is important to note that ownership is not simple. On the contrary, it consists of a nesting set

---

<sup>7/</sup> Ibid., pp. 415-416

of vested interests that unite the family vis-a-vis other families but create divisions within it between wives and their respective sons at one level, and between the sons of one wife at another. This fact does not prevent the Masai from selling livestock, but it does mean that sales are a matter of concern and interest to the various members of a family.

To summarize, a Masai herd owner's management practices and strategies were subject not only to the constraints of the physical environment and the requirements of his livestock but also to the regulatory pressures of several types of social groups; most importantly his family, his boma, the council of elders of his locality, and especially in times of ecological stress or war, his tribe.<sup>8/</sup>

### III. The Transformation of Traditional Masai Society

While recent historical research has made it clear that East African societies were far from static or stagnant in the pre-colonial period, there can be no doubt that the pace and direction of social change has been greatly altered in the present century. Despite their outward conservatism in

---

<sup>8/</sup>For the purposes of this analysis, the complexities of the age grade system are not important. Their main relevance is that men did not become independent family heads or members of the council of elders until they had attained the third grade in a four-grade system. The junior two age grades, the Murrani, played a major role in warfare which protected and extended the tribe's rangeland and in cattle raiding.

life style, the Masai peoples are no exception to this generalization. The loss of their political autonomy and of access to much of their dry season water and rangeland has resulted in major changes in Masai diet, herding systems, ecology, and social organization. Understanding the major dimensions of this process of change is essential to understanding the situation of environmental deterioration now faced by the Masai and to understanding their perception of the Tanzanian government's efforts to integrate them more fully into the national economy and society.

### History

The pastoral Masai as a distinct people may have diverged from the Samburu as much as one thousand years ago. By 1400, they were moving southward from their original home east of Lake Rudolf into the central Rift Valley. By 1600, they had occupied parts of what is now northern Tanzania.<sup>9/</sup> It is clear from archeological evidence, however, that all of the areas into which the Masai expanded during this period had been previously occupied by pastoral or semi-pastoral people. Indeed, there is evidence of pre-Masai pastoralism in parts of Masailand from the first millennium B.C.<sup>10/</sup>

---

<sup>9/</sup> Ibid., p. 411

<sup>10/</sup> Ibid., citing Odner, 1972, Bower, 1973, and Gramly, 1971

Recent research has demonstrated that, far from causing environmental deterioration, this long usage by pastoralists had the effect of "domesticating" the environment for man and wildlife alike.

...research by a host of recent ecologists (e.g., R. Bell, M. Watson, M. Gwynne, D. Weston and M. Rainey) have demonstrated that the particular short grassland regimes of these areas, which today support vast herds of wild ungulates and their predators, were not created by nature alone, but rather by pastoralists and the intensive grazing of their domestic livestock and their judicious use of fire.....

In short, rather than destroying the wildlife environment, it now appears increasingly clear that heavy pastoral grazing of medium to tall grassland regimes is both a necessary and beneficial condition for the development and maintenance of the vast herds of wild ungulates that are found in these areas today.<sup>11/</sup>

In part, this ecological balance between the pastoralists and their natural environment was the result of deliberate though unsophisticated range management techniques, including elaborate grazing sequences, the preservation of standing hay for dry season use, the use of donkeys to carry water, the burning of grasslands in good rainfall years and the careful browse management of goats to control brush from encroaching on the range. Strong social pressures could be brought to bear on individuals or groups that did not conform to range

---

<sup>11/</sup>Ibid., pp. 410-411

management decisions agreed upon by the council of elders.

The ecological balance, to the extent that it was maintained, was also undoubtedly related to the high mortality of livestock due to disease and occasional drought and to welfare which enabled the Masai to obtain and retain control over higher altitude desirable dry season pastureland.

Beginning in the last decade of the 19th century the Masai suffered major natural, political, and economic setbacks which set in motion an irreversible process of eco-stress and social change. Their herds decimated by the Great Rinderpest Epidemic of 1890 and their numbers greatly reduced by smallpox the Masai were unable to resist the encroachment of European settlers and African farming peoples on their most valuable lands. To some extent this loss of resources was the result of the political power of the European administration and its policy of forced relocation, as in the case of the "Masai moves" of 1904 and 1911, which confined the pastoral Masai in Kenya to the "Southern Reserve." More recently, the Masai have lost access to extensive traditional pasturelands as the result of administrative decisions to keep them out of wildlife areas such as the Serengeti Plains, Amboseli Park or Ngorongoro Crater.<sup>12/</sup>

---

<sup>12/</sup> Attempts were made to compensate the Masai for their losses with additional water sources.

Competing Modes of Utilization of the Area

In a more fundamental sense, however, the Masai's predicament is the result of a conflict of interest in regard to the utilization of scarce resources between groups of people with differing modes of ecological and economic adaptation: the Masai, the traditional agricultural peoples, and the modern market-oriented farmers and the Europeans.<sup>13/</sup> The conflict centers on the use of land with a reliable rainfall in excess of 30" and access to a permanent water supply (within about six miles).

The traditional Masai mode of exploiting such lands produces high returns on labor, low returns per hectare, and an excellent high-protein diet,<sup>14/</sup> as well as a rather high degree of economic security because cattle could be moved in relation to rainfall variations. The Masai political system, based on an age grade system, with its ability to unite, mobilize and motivate a strong warrior group, enabled the Masai to defend their land against traditional cultivators whose ecological adaptation resulted in higher population densities.

In the same physical environment the indigenous horticultural system (involving shifting cultivation) yields lower returns on labor, higher yield per hectare, a protein-poor low quality diet and higher risk in the face of drought.

---

<sup>13/</sup>...and their Kikuyu successors

<sup>14/</sup> For Masai physiological adaptation to their high protein diet, cf. Jacobs (citing Kang-Jey et. al. 1971) 1975, p. 409.

Today, on favored lands, a new system of market-oriented small-holder farming has emerged.<sup>15/</sup> This system produces returns on labor that are better than those of traditional agriculture but below those of the traditional pastoral Masai or the European-type modern farm. Returns on land are the highest of any of the four systems, due to the greater investment of labor per hectare. The quality of diet is intermediate between that of traditional cultivators and of the Masai pastoralists, and risk is probably lower than for either of those groups--provided, of course, that the national economy and its credit institutions do not break down.

The European mode of agricultural exploitation in Kenya produced the highest returns on labor (i.e., the labor of the European operator), returns on land second only to that of modern small farmers, the highest standard of living, great security and a self-justifying set of stereotypes about the deficiencies of Africans' agricultural practices and economic rationality.

It is essential to note that the European agricultural system depended on access to export markets and politically regulated price and labor policies which: a) prevented African producers from competing with Europeans; and b) ensured a plentiful supply of cheap labor through the imposition of cash taxes on subsistence farmers.

---

15/

European political domination and the displacement of both pastoral Masai and farming peoples from much of their most desirable land affected the Masai both directly, through the loss of access to resources, and indirectly, since they were no longer able to stop the encroachment of traditional agriculturalists through military action (warfare).

The purpose of the foregoing analysis is not to pass moral judgments on the behavior of the various groups concerned but rather to clarify the nature of their conflicting economic and political interests. A complete analysis of "rational" land use is beyond the scope of this report and would be far more complex. One important factor with regard to the Masai that would have to be considered is that even though their use of high quality dry season pastureland may be comparatively inefficient (with respect to output per hectare), their ability to "fall back" on such reserves enables them to utilize extensive wet season grazing areas that would otherwise remain completely unproductive. Another consideration is the "touristic" advantage of allowing some Masai to graze in game parks.

#### Masai Response to Modern Pressures

The continuing reduction of rangeland resources available to the pastoral Masai populations of Kenya and Tanzania has created increasing ecological stress and set in motion a process of environmental degradation that has altered their herding systems and diet and threatens them with a slowly accelerating descent into absolute poverty.

The steadily worsening predicament of the Masai and its underlying cause (i.e., the reduction of dry season resources) has been obscured by the cyclical nature of rainfall and herd size in Masailand. At least in recent decades there has been a pattern of increasing herd size until a combination of periodic drought and overstocking lead to a collapse of the eco-system and a drastic reduction in herd size. This practice is illustrated dramatically by data from Kajiado district in Kenya.

Cattle Population: Kajiado District (2.1 m ha.)

<u>Year</u>	<u>Cattle Nos. ('000)</u>	<u>Stocking Rate (ha.)</u>
1944	347	6.0
1952	500-580	4.2 to 3.6
1961	757	2.8
1962	200-300	10 to 7.0
1965	350	6.0
1968	450	4.7
1970	550	--
1975	700	--

Under these conditions, each family attempts to keep very large herds to reduce the risk of falling below subsistence when disaster strikes. The situation is exacerbated by the fact that as the amount of available pastureland per livestock unit, and hence the quality of the range, decreases families living near subsistence are forced to increase herd size to obtain the same level of production.

Particularly in areas like the Sinya, Ngare, Nanyuki, and Longido plains in Tanzania, which lost dry season reserves in the highlands around Mount Meru and Kilimanjaro, the Masai have been increasingly forced to settle in low potential areas formerly used only for wet season grazing. The same process took place in the Rift Valley plains near Nairobi in Kenya. In some of these regions bore holes were drilled to provide cattle with water, but rainfall was insufficient to supply reliable pasture during the dry season.

As conditions have worsened, Masai have started to consume increasing amounts of maize, reducing the protein content of their diets. Some men have taken wives from agricultural tribes to cultivate a little land in good years. Some turned to wage labor migration to supplement their incomes. Apathy and alcoholism and health problems also increased.<sup>16/</sup>

The process of eco-stress and environmental degradation shows much local variation, but in general terms it is much more severe among the Kenyan than the Tanzanian Masai. Indeed, it is estimated that the resources available to the Masai per capita in 1964 were approximately four times greater in Tanzania than in Kenya. <sup>17/</sup>

---

<sup>16/</sup> Ibid. p. 418

<sup>17/</sup> Peberdy, personal communication.

The Masai have not accepted their deteriorating position passively but have reacted to it with legal and economic activities. Unable to resist European firepower, the Masai had to accept treaties that give them rights of occupancy to a portion of their former lands. When the colonial government of Kenya violated these treaties, the Masai took their case to the colonial courts, where they were often denied justice on dubious legal grounds. 18/

Subject only to the limits of their subsistence needs and concern with risk, the Masai responded to new economic opportunities vigorously and rationally. In the early part of the century they sought to replenish their ravaged herds with cattle from the north, only to be barred from doing so by the pressure of white settlers who complained that the Masai were driving up the prices.19/ Later the Masai were prevented from legally marketing their cattle in Kenya because they were underselling their white settler competition. 20/ Despite the higher costs involved, a class of skillful Masai cattle traders soon emerged to organize an illegal cattle trade. Similarly, the Kenya Masai were prevented from raising Merino sheep by European settlers on the dubious grounds that "if allowed to raise Merino sheep as they

---

18/ The Masai Case: Ole Njogo vs. the GG of East African Protectorate; 5 EALR 70 (1914)

19/ Jacobs 1961, p. 40

20/ It should be noted that discriminatory price policies and restrictions on production were not limited to the Masai but applied to all African producers until the Second World War.

wished to do as early as 1906, Masai '...would be tempted to steal sheep from their European neighbors'." <sup>21/</sup>

Finally, and perhaps most importantly for future policy purposes, Masai cattle sales have been elastic in relation to price. Table A indicates that the substantial increase in official producer prices led to a corresponding increase in legal cattle sales.

TABLE A

<u>Year</u>	<u>No. Sold</u>	<u>Total £'s Rec.</u>	<u>Av. Price ea.</u>
1936	9,862	14,500	Sh. 29/6
1937	10,080	22,000	43/4
1938	12,744	22,100	34/6
1940 } 1943 }	a total of 27,306 head of cattle were sold to aid war effort, of which £11,788 was given as out-right war gift, and £11,772 as loan +80,000 sold at auction.		
1944	20,444	53,500	52/3
1945	21,394	58,760	54/9
1946	17,748	48,100	54/2
1947	12,406	42,300	67/3
1948	15,691	64,480	82/-
1953	28,899	182,500	126/4
1954	30,579	265,020	173/4
1955	27,871	219,050	157/2
1956	26,554	218,050	164/3
1957	24,171	216,500	161/9
1958	24,889	198,590	154/-
1959	32,170	247,299	154/-

N.B.--1946 through 1948 were drought years and their effect is reflected in the cattle sales. Figures for 1949-52 are unavailable. The drop in sales from 1955-58 was largely due to one-third of the cattle being under quarantine for B.P.P. <sup>22/</sup>

<sup>21/</sup> Jacobs 1975, p. 413, (citing Leys, Kenya, 1924, p. 95).

<sup>22/</sup> Jacobs, 1961. p. 40.

Statements to the effect that the Masai have a backward sloping supply curve or that they sell only feeble, low quality cattle and these at the height of the dry season when they are in poor condition are inaccurate and are based on: a) failure to take into account the sale of the illegal cattle trade; and b) naive acceptance of Masai verbal responses to questions from outsiders they do not trust.

Masai response to development schemes that have been imposed on them during the past 50 years has also been reasonable from the individual decision-makers' perspective, even if it was not always consistent with national political and economic objectives.

Paradoxically, much of the injurious effect has been either caused or exacerbated by poorly designed and highly erratic development schemes and policies that were imposed on them during this time (Branagan, 1962; Davis, 1970; Halderman, 1972; and Jacobs, 1963 and 1972b). To cite but one recent example: for years efforts have been made to develop Maasias settled, mixed farmers; yet in 1968, wheat schemes undertaken by Maasai in the Narik District of Kenya not only produced surpluses to an extent that Government could not dispose of the grain profitably and lost large sums in subsidies, but Maasai were then prevented for the next two years from replanting and urged to return to full-time herding while their fields remained idle and non-productive.<sup>23/</sup>

As will be stressed in the following section, the major concern that has informed Masai response to developmental projects has been their desire to prevent further encroachment on their resources and to obtain water for their livestock.

---

<sup>23/</sup> Jacobs, 1975, p. 419

Masai attitudes towards non-Masai have evolved from a situation of intertribal opposition and have been shaped by the processes and experiences that have been summarized here. The major features of this attitude towards outsiders are:

- 1) mistrust, or at best skepticism, of their motivations;
- 2) an emphasis on the maintenance of a Masai identity through strict adherence to distinctively Masai clothing, personal adornment and other diacritical aspects of Masai life style;
- and 3) passive resistance to forced innovation through "playing dumb." This last point is illustrated by the Masai who agreed, against their better judgment, to plant food crops in poor soils and assured failure through deliberately improper techniques of planting.

What is most significant about Masai attitudes towards development is not that they are impediments to change, as is often implicitly or explicitly assumed, but that they are accepted by development planners as an excuse for not examining the fundamental ecological and economic roots of the Masai predicament.

The purpose of the somewhat extended foregoing analysis of traditional Masai society and its transformation has been to provide the basis for understanding the contemporary situation in the Masai project area and the internal and external forces that are shaping it. To summarize the most important points that have been established are:

1. That there is no evidence that Masai decisions in regard to economic issues are more "tradition-bound" or less "rational" than that of other groups;

2. That the Masai situation is dynamic, not static; and that there have been continuing changes in the ecological and economic foundations of Masai society throughout the present century;

3. That though the Masai appear to be little changed and to live in isolation from other peoples their lives and welfare are closely linked to other sectors and are directly affected by national economic and political policy; and

4. That the major problem facing the Masai today is not their conservatism or traditional and "irrational" culture but the continuing reduction in the available resources per capita and the resultant degradation of the environment.

Recent Developments in Kiteto and Monduli Districts  
(the Masai Project area)

While the Tanzania Masai of Kiteto and Monduli districts have been affected to some extent by the loss of dry season reserves in the Kilimanjaro and Mount Meru highlands from the early part of the century, it is only in the past decade and a half that they have lost access to a significant part of the reserves within the Masai plain. Already, however, these losses have had a profound effect on Masai economic and social life and have shaped their response to both the Masai project and the Tanzanian government's program of villagization.

The reductions in resources available to the Masai in the project area (i.e., Kiteto and Monduli districts) has resulted from five types of activity:

1. The exclusion of the Masai from the Serengeti Plains and Ngorongoro game areas;

2. The expansion of crowded agricultural people into the plains in the north and scrub forest in the south. Around Arusha, for example, cultivation extends beyond Monduli and deep into Simanjaro and Shambarai. Many of these farmers have further exacerbated the pressure on resources by adopting herding on a modest scale; <sup>24/</sup>

3. The establishment of large-scale commercial farms producing coffee, wheat or maize on a long-term basis. Initially, these agricultural enterprises were expatriate-owned; now some have been nationalized and are part of parastatals;

4. The short-term leasing of large tracts of land for the temporary cultivation of cash crops; usually beans or wheat. Rangeland which has been plowed up in this way, "mined" of its fertility and abandoned, does not rapidly revert to pastureland; and

5. Government-encouraged agricultural settlements which settle non-Masai immigrants in areas with adequate all-year water supplies. The growth of these farming enclaves around new administrative and commercial centers is an expectable aspect

---

<sup>24/</sup> Hatfield and Kuney, 1976a, p. 19

of the region's development. Since these centers are always located near crucial water sources, however, they further reduce resources available to the Masai.

While there have been attempts by the Tanzanian Government to implement the USAID 1968 feasibility study recommendation that large-scale cultivation in Masailand cease, there are strong pressures that counteract these efforts. These include land shortage among the adjacent farming peoples such as the Pare and the Warush, the higher return per hectare on agriculture, Tanzania's food deficits and the lure of large short-term profits which outweighs long-term considerations of environmental degradation.

The Masai are very much aware of the problems of encroachment on their dry season lands and water supplies. Taken together, these agricultural activities are so widespread that, according to Hatfield, only Ndede-Makame-Kitwai are not affected, though, as Hatfield notes, in discussion with officials, the Masai are likely to refer to the land problem indirectly by referring only to a shortage of water. Despite this awareness, however, the Masai have not been able to take effective legal or political action to protect their interests. Their concern has, however, been an important factor in their initial interest in the Masai project ranching associations and more recently in villagization.

According to Colby Hatfield and Reuben Ole Kuney<sup>25/</sup> Tanzania Masai are relatively permanently settled, use a two-pasture system and regard their present locations as permanent if water, pasture or cattle disease do not force them to move.

Large herds are still maintained, but there are increasing signs of eco-stress in terms of the range condition around water points, partial breakdown of the social mechanisms that reserved dry season pasturage for dry season use and poor livestock conditions in dry periods.

Reliable quantitative data on nutrition are sparse, but it seems clear that, with the exception of the men in the warrior age grade, most Masai are dependent for survival during the dry season on maize, which they purchase or, in some cases, cultivate. This apparent shift from a high protein diet to one that includes more carbohydrates is a sign of poverty, not modernity.

Changing ecological and political conditions in Kiteto and Monduli have begun to effect changes in the social organization of the Tanzania Masai. The number of families per boma appears to have dropped from between four to eight to two to five in the past ten years...<sup>26/</sup> The age at which boys are initiated into the age grade system and the age at which they marry has been lowered. At the same time increasing school enrollments

---

<sup>25/</sup> Hatfield and Kuney, 1976.

<sup>26/</sup> Hatfield and Kuney, 1976. Since Jacobs' methodology was different from Hatfield, it is not certain whether this change is apparent or real.

affected the organization of work by forcing some bomas to use older youths as herd boys than was formerly the case.

The locality--that is, the group of bomas that share adjacent water points and submit their disputes to a single council of elders--is still an important unit of organization. Its ability to restrict the use of dry season pastures may be weakening, but it has played a crucial role in responding to the demands and opportunities created by the Masai project and resettlement program. The leaders in locality councils are still from the elder age grade, but they tend to elect younger and more educated men to represent their interests on committees that deal directly with government officials.

The age-grade systems still exist, but their non-social function is becoming attenuated with the great reduction in cattle raiding and the cessation of warfare. The larger tribal groupings are also of comparatively little significance because they no longer exercise their political and range controlling functions.

#### IV. The Masai Project

The history, administrative structure and technical aspects of the USAID Masai Livestock and Range Management Project have been described elsewhere and will not be detailed here.<sup>27/</sup> The purpose of discussing the project in this report

---

<sup>27/</sup> The most comprehensive documents in this regard are: the USDA 1968 feasibility study, Livestock and Range Improvement in Masailand Tanzania; an untitled 1975 report by Oleen Hess; and the 1976 Utah State University team report, Evaluation of the Masai Livestock and Range Management Project.

is to place the Masai response to the project in the broader perspective that has been developed in previous sections of the report, a perspective that is based on the assumption that Masai are responding to their problems and opportunities in a reasonable manner as individuals, given the nature of their environment, their ecology and their mode of social organization.

### Project Design

The "goal" of the project has been to "assist the Government of Tanzania to achieve its objective of self-sufficiency and an exportable surplus to earn foreign exchange in the livestock sector."

More specifically, its purpose is "to achieve a sustained high level of livestock off-take in the Masai District consistent with proper resource management and Tanzanian development goals." The extent to which the project has accomplished its purpose is to be measured by: 1) an increase in annual off-take; 2) an increase in average slaughter steer liveweight; 3) an increase in calf drop; 4) a decrease in calf mortality; 5) an increase in the effective calving rate; 6) a reduction in the average age of slaughter steers; 7) a reduction in the average age of females at first calf.

From its inception the project had two "outputs", or objectives. One was to create better infrastructure in the form of range management plans, disease control, water development, livestock improvement, marketing, extension and trained Tanzanian personnel. The other objective was to create

cooperative institutions, called ranching associations, which were to build, regulate, and manage the new infrastructure.

The major inputs in the Masai project have been:

1) expatriate technicians, including a project coordinator, a range management specialist, a water development specialist, an extension sociologist, a groundwater hydro-geologist, a veterinarian, a heavy equipment specialist, a rural training specialist, a well driller and most recently a direct-hire project manager; 2) equipment for water resource development, road construction<sup>28/</sup> and the creation of Livestock Development Centers; and 3) training for Tanzanian counterparts.<sup>29/</sup>

The approach to introducing these technical and institutional changes to the Masai, recommended by the feasibility study<sup>30/</sup> and incorporated into the original (1969) Project Paper, was remarkable for its intended sensitivity to Masai society and, at the same time, its patronizing attitude towards their cultural conservatism which, it was assumed, would inhibit the acceptance of technological innovation.

---

<sup>28/</sup> Road construction has been undertaken in the project area as a form of drought relief.

<sup>29/</sup> Utah, 1976, pp. 9-11.

<sup>30/</sup> USDA Feasibility Study, 1968, pp. 21-22.

The first major effort will be to gain the confidence of the Masai in order to enlist their cooperation. The technicians will spend the majority of their time in the field gaining an understanding of how to work within the Masai social structure and decision-making process, and how to introduce and implement the innovations within the social and cultural context of the Masai traditions and society. Practices that are compatible with the religious, educational, and family backgrounds of Masai herdsman, and that are relevant to their experience will be introduced to and through the Masai decision-makers to the Masai cattle owners. The project is expected to begin slowly, and the physical work may take as many as ten years to complete.

Once the technicians gain the confidence of the Masai and understand their decision-making process, they can help the Masai address such problems as slow maturing, poor quality animals, disease and parasites, water and range development, and inadequate market off-take. Special efforts will be made to increase the production supplies and credit availability, improve the technical/advisory services to the livestock producers, and encourage cooperative activities to reduce the costs of producing and marketing livestock.

Technological innovation and improved animal and range management practices are absolute prerequisites for attaining the project goals. Although a great deal of technological change needs to be made, the primary factors inhibiting change and delaying the transformation are basically cultural and sociological rather than technical (italics mine).

The project will start with and build from the present social, cultural, and technological context. Project implementation will avoid tampering with the social system directly, largely limiting innovation of technical change, and allowing the social structure to adapt by itself, as necessary, at minimum social costs and outside interference. However, since many of the developmental inhibiting factors are social and cultural rather than technical, special attention will be paid to formulating ways to cope with these inhibiting factors.....

It is essential that the association members be involved throughout in the planning, decision-making and management of the program. The mechanism for increasingly transferring these functions and responsibilities to the individual Masai is an absolute precondition for success. Means will be built into the activity for the Masai social system to take over, manage and operate the introduced changes.....

The elders' councils operate by discussion and consent and are the major points of contact and communication with the Masai and, therefore, for getting cooperation from the Masai. Since the Masai cattleman is proud, independent, and conservative, he must be convinced not coerced. Therefore, all innovations, generally one at a time, will be thoroughly discussed with the elders for introduction through them to the Masai. Following this, and an indication that the cattle owners are not totally opposed, the technicians will demonstrate the innovations to them. 31/

Unfortunately, the staffing, training, and organization of the project implementation team made it difficult to maintain this approach consistently. For reasons which are described in some detail in the 1976 Utah evaluation, project activities were dictated by technical administrative circumstances with rather little coordination. Little work was actually done that would enable the technicians to understand the Masai or their perspective in cattle and range management. Technical, rather than social or economic, considerations dominated project development.

#### The Masai Response

The Masai have responded very positively to those technological inputs which benefited their herds but have had little economic incentive to sell more cattle. This has resulted in high stocking levels. On the institutional side, the attempt to build viable cooperative ranching associations which could maintain appropriate stocking levels, facilitate marketing and promote all aspects of development, little

---

31/ Masai Livestock and Range Management PROP, August 1969.

progress has been made. The main reasons for this are:

1) with a few exceptions the Masai have not obtained secure rights of occupancy or stopped encroachment through participation in ranching associations; 2) for technical, logistic and organization reasons the project has not always been able to provide infrastructure and services in a timely manner to associations that have raised capital funds; and 3) ranching associations have not been given enough responsibility for the recurrent cost of maintenance on infrastructure to generate adequate cattle sales or develop a strong sense of organization and purpose. The problem of establishing viable associations has been further complicated by the Tanzanian government's policy of creating resettlement villages whose boundaries, functions, and jurisdiction conflict with those of the associations.

By the end of 1975 the project, despite technical and organizational difficulties, had made impressive progress on the creation and repair of surface water projects and considerable progress in repairing and drilling bore holes, had established 12 Livestock Development Centers, had developed four range management plans, and had begun to establish eight (out of a projected 21) ranching associations.<sup>31/</sup> Progress had also been made in training Tanzanian technicians and in carrying out a crude sociological census. Attempts at genetic

---

<sup>31/</sup>

Utah, 1976, pp. 13-23.

improvement of livestock have not yet met with success, and the training center had not yet begun operation in October 1976. No progress had been made on establishing a monitoring system for range condition or stocking levels.

The Masai response to technical innovations introduced by the project, both individual and collective, has been very rapid and is consistent with the perspective, developed throughout this report, that the Masai are rational decision-makers rather than traditional and conservative. Hatfield reports:

...(The) Masai have adopted a great many technical innovations in the area of animal husbandry, and in some cases, without the stimulus of a field staff. They are willing to pay for dips and acaricide, as well as pay the salaries of dip attendants. Associations and prospective associations have collected rather large sums of money for the construction and repair of water supplies in their areas. They have contributed money for the purchase of supplies for veterinary centers: fridges etc. And it is not at all uncommon for a boma to possess a syringe and be actively seeking stock medicines. 32/

Elsewhere Hatfield and Kuney observe:

In fact, rather than demonstrating a closed system vis-a-vis imports, the Masai demand some technical improvements which cannot be provided fast enough. 33/

---

32/ Hatfield, 1975, p. 16.

33/ Hatfield and Kuney, 1976, p. 5.

The rapid acceptance by the Masai of technological innovations that they perceived to be in their interest suggests that additional innovations might have been successfully introduced, had Masai interests been correctly assessed. If, for example, the fact that the Masai are a semi-sedentary dairy herding people had been fully appreciated, the possibility of introducing milk separators and encouraging production of ghee (and other dairy products) might have been investigated. This possibility appears particularly attractive because protein production is three to four times more efficient in energy flow terms than is beef production, and because during the rainy season almost all bomas have temporary surpluses of milk.<sup>34/</sup>

Improved goat production and marketing represents another type of technical innovation that would have been considered if Masai interests and decisions had been more central in project planning. This is because goats are the most common source of meat consumed in Masailand; goats are frequently marketed to non-Masai for cash; goats are less susceptible to disease than are cattle; and because, when properly managed, goats browse rather than graze.

---

<sup>34/</sup> Jacobs, personal communication.

### Overstocking and Cattle Marketing

The success of the project in introducing new technology has not been accompanied by similar success in increased off-take through cattle sales. On the contrary, overstocking and consequent deterioration of the range are generally seen as severe problems by AID technicians, Tanzanian officials and by the Masai themselves. It is essential to understand the causes of overstocking in order to formulate an effective development strategy for the project.

In the absence of reliable data it is not possible to say to what extent signs of overstocking are due to the lowering of cattle mortality due to project inputs, to a natural cyclical build-up in the herds, to a loss of access to dry season pasture and water points, or to a greater concentration of cattle in areas serviced by project infrastructure. Probably all of these factors have contributed to the problem.

The project water development specialist and long-time resident, Don Morris, estimates conservatively that the number of livestock units in Masailand as a whole increased about 25 percent between 1967 and 1975. The District Livestock Development Officer of Monduli district estimates that in the areas of his district served by the project livestock on the range have tripled in less than a decade. Other observers stressed the problem of overstocking around new bore holes which, unlike traditional water sources, are

subject to effective control by the elders of the locality.<sup>35/</sup>

What does seem clear is that the off-take, measured in official cattle sales, has not increased significantly and that in some areas overstocking is leading to serious degradation of the environment.

In response to this problem (which is not limited to the Masai area) the Tanzanian government has announced a goal of ten percent per annum for the entire country. District and regional officials interviewed said that they were trying to encourage cattle sales through education and publicity, that they were measuring success in terms of official cattle receipts issued and that, in general, they were not optimistic about reaching their targets.

USAID (through its Arusha Drought Project) is attempting to increase cattle sales by improving marketing capabilities through providing water at holding grounds and establishing new roads, and by means of additional marketing research. The Tanzanian Livestock Marketing Company is also trying to stimulate cattle sales.

The principal function of TLMC is to establish market locations and facilities to provide an alternative to selling to buyers. Thus, if after a period of negotiation between individuals, animals still remain unsold, the auction market is begun. By this means a floor price is established and protection is afforded against too sharp practices by

---

<sup>35/</sup> Hatfield and Kuney 1976a.

private buyers. Two factors minimize the effect of TLMC in influencing and promoting marketing--controlled meat prices and the lack of facilities and resources for handling large numbers of cattle. <sup>36/</sup>

Yet, despite this assessment of TLMC's limitations, the Utah-AID team maintains, as do Tanzanian officials, that it is the traditional attitude of the Masai and not their rationality that lies at the heart of the problem.

Despite the obstacles that marketing, physical, and economic factors pose, the biggest hindrance lies in the attitude of the Masai. So long as cattle are viewed as their most desirable possession, marketing will be sporadic and unlikely to provide the level of off-take that is required to maintain a balance with forage supplies and to develop a fully productive herd. There is considerable evidence that the Masai tend to sell animals not when forage is ample and animals are in better condition, but rather when they are thin during the dry periods and especially when drought necessitates purchase of food. A much better market orientation must be developed in the Masai than now exists. <sup>37/</sup>

Elsewhere in the report the evaluation team states that:

The most obvious overoptimism (in the project's initial assumptions) is in the respect to the attitude of the Masai. Progress is being made with respect to animal health and disease control, but there has been no evident change in Masai attitudes about developing a market orientation. Cattle still remain the commodity upon which they place greatest value. Some Masai interviewed even admitted that money received for cattle under the Tangov's ten percent offtake program would be used

---

<sup>36/</sup> Utah, 1976, p. 43.

<sup>37/</sup> Utah, 1976, p. 44.

to purchase more cattle  
thus, negating the objectives of the program.<sup>38/</sup>

The assertion that it is the Masai "attitude" rather than the rational pursuit of their own interests that accounts for the low rate of cattle sales and overstocking is of critical importance. It is critical because, if correct, it has important policy implications for the Masai project, and by extension, for similar projects among "marginal" peoples elsewhere. If correct, it would imply that: 1) it is important to go slowly in introducing economic change; and 2) a major educational or extension effort is necessary to enlighten the Masai about their self-interest. Even more important, by attributing Masai economic behavior to their traditional "attitude" Tanzanian and American officials prevent themselves from investigating in greater depth the factors and circumstances that actually determine Masai economic behavior.

In fact, the evaluation team assertion is not borne out by a closer examination of the very evidence they cite. The observed tendency of the Masai to sell cattle "when they are thin during the dry periods and especially when drought necessitates purchase of food" applies only to officially recorded sales. When the Masai anticipate the need for cash, they prefer to sell their better livestock illegally on the Kenya market (the Kenya shilling is worth more than the

---

<sup>38/</sup> Utah, pp. 28-29.

Tanzanian shilling in terms of purchasing power) and to sell illegally to unlicensed Tanzanian traders. It is only when they are caught short by unexpected drought or other hardship that the Masai will turn to the government's TLMC which will pay them a higher price for low quality cattle than they can obtain on the unofficial market. This phenomenon was well illustrated shortly before the time of the writer's visit to Arusha when a truckload of emaciated cattle were purchased in Monduli district at well above their market value in Arusha! 39/

The other piece of evidence cited by the evaluation team in support of their argument that the Masai have a poor "market orientation" is that they say they will buy more cattle if pressured into selling cattle. What the team does not consider is that, under present conditions in Masailand, buying cattle is the best available form of savings and investment and the best strategy for averting risk. Banking facilities are inaccessible to most Masai, and, in light of recent inflation rates in Tanzania, investing in productive capital goods, i.e. cattle, would appear to be the only rational course of action. The only alternative uses of the proceeds of cattle sales are consumer goods, which are not generally available or, with some exceptions, greatly desired, or for collective contributions to paying for the recurrent costs on borehole headworks, veterinary services and acaracide for cattle dips, which the Masai have not been allowed to do,

---

39/ Hatfield, 1976c, p. 2, reports that near Loliondo the Masai recently brought in animals near death or dying. A consignment of animals trucked from Loliondo died before reaching Arusha.

even when they requested to do so.

Further evidence that Masai marketing behavior is not determined by their conservative attitudes has been aduced by Oleen Hess, who was for many years associated with the project in one capacity or another. 40/

Excessive marketing costs, fees and taxes, and artificially low prices, are other negative factors (in cattle marketing). For about two years prior to initiation of the marketing acitivity in the project, The District Councils operated the livestock markets. Market, veterinary and other fees plus TANU dues totaled an average of 50 shillings (\$7.00) per animal sold. Yet, no funds were expended by the Councils in improving or maintaining the marketing facilities. If the producer did not have a receipt for previous payment of TANU dues, and invariably the receipts were lost, these were collected repeatedly at the markets as animals were sold.

The pricing policy was kept artificially low to provide cheap meat to the urban consumers. Therefore, the producer received from 250 to 300 shillings for an animal and paid 50 shillings in fees. At the same time prices in Kenya were 60 percent to 80 percent higher, so a lot of animals illegally crossed the border. Prices to the producers have recently been increased in Tanzania.

On one occasion during a severe meat shortage Tanganyika packers increased the prices at the Arusha market equal to the Kenya prices and were flooded with so many animals they could not obtain adequate rail cars or trucks to ship them to the Dar es Salaam plant, and the condition of the holding grounds did not permit holding them very long. They had to drop the inflow. The Masai may not comprehend

---

40/ Hess was involved in Tanzania's Agriculture and Rural Development program from September 1965 until June 1974: two years as agri-culture backstop officer in AID Washington, including the 1966 visit and discussions; as team leader of the Phase I ten-man five-month reconnaissance team; and the balance of the time as Food and Agriculture officer in Tanzania.

or accept economic market offtake, but they understand prices, what an animal is worth, and being excessively taxed at the market place.<sup>41/</sup>

Rather than place blame for the failure of the project to generate higher legal cattle sales, it is more constructive to examine the possible effects of alternative policy strategies. These include: 1) the provision of consumer goods; 2) shifting recurrent costs for infrastructure to Masai-run organization; 3) the structure of marketing fees; 4) price policy; 5) a graduated cattle tax based on individuals or groups; 6) surtaxes on overstocked families, bomas, localities or other social or geographic unites. These issues are discussed in relation to Tanzanian policy and political constraints in the concluding section.

#### The Establishment of Ranching Associations

From a sociological and developmental point of view the most interesting aspect of the Masai project has been its attempt to understand traditional Masai social organization and to build on it to create new organizational units, ranching associations, which would facilitate greater Masai participation in Tanzanian economic and political life. At present (fall 1976) this attempt does not appear to have attained its goals. This does not reflect a defective conceptual basis of the project, but rather problems that arose during the period of project implementation. The most important of these were:

---

<sup>41/</sup> Hess ND, p. 31.

1) inadequate sociological staffing; 2) inadequate extension and monitoring of population, herd size, rainfall, and range conditions; 3) poor project coordination, resulting in ineffective sequencing of project inputs; 4) lack of agreement concerning project goals between AID, which was committed to creating ranching associations designed in the mid-sixties, and TANU officials, committed to the concept of ujamaa villages by the early 1970's; and 5) increasing competition for scarce resources in the Masai plains. It is instructive to trace the rise and fall of ranching associations in relation to these background factors.

USAID involvement in Masailand began in 1962 when AID financed a study that helped form the basis of the Range Management and Development Act of 1964. This act provided the legal basis for the establishment of ranching associations and in the same year the Masai Range Commission was established to administer the Act and register associations in Masailand. The essential rules governing the formation and functions of ranching associations are described in the USDA feasibility study:

Preparatory to forming a ranching association, the Commission should (1) examine its entire area, holding discussions with prospective members; (2) choose areas it considers suitable for ranching projects; (3) have them surveyed to determine their potential and report the results to the Minister; and (4) after considering these reports, choose an area or areas for a ranching association.....

After the proposal is completed, Commission members are required to explain it thoroughly to the proposed membership. The association is not registered until 60 percent of the proposed membership approves the proposal.

If the proposal is approved, the association is registered and is entitled to rights of occupancy and those water rights included in the approved proposals.

Once registered by the Commission, the ranching association becomes a corporate body capable of suing or being sued, capable of holding, purchasing or otherwise acquiring and disposing of property. It also has the power to buy and sell stock, agricultural machinery and tools, agricultural products and seeds and other goods, to keep and graze stock on association lands and to reserve part of its ranchlands for an exclusive ranch to be maintained and operated by the association....

A ranching association is responsible for controlling and developing its land for the continuing benefit of its members. For this purpose the association is required to make by-laws and submit them for the Commission's approval, along with the application for registration. By-laws must state the number of stock units allowed for each member, and for the association itself (if it is to keep stock), the total of which cannot exceed the number authorized by the Commission. The by-laws may also cover association functions, implementation of any range management scheme, prevention of brush fires, dipping of live-stock, method of paying fees, and method of determining livestock quotas.<sup>42/</sup>

The Masai Range Commission consisted of Masai representatives from each area of the district, the Area/District Commissioner and representatives from appropriate technical ministries and TANU.

---

<sup>42/</sup> USDA cooperating with USAID 1968, pp. 21-22.

Each association was to elect its steering committee which was responsible for the administration and management of the association. The steering committee was usually composed of representatives from different localities. Decisions being considered by the steering committee was supposed to be referred back to each member's locality to be debated by the traditional council of elders. The association was thus built on traditional decision-making structures to ensure that issues would be communicated to boma heads for discussion and consent or rejection.

In geographical and sociological terms, each association represented the grouping together of a discrete number of traditional localities. According to Hess, the average association covers 300,000 acres, has 500 families and 200,000 livestock units.<sup>43/</sup> As of January, 1976, eight associations were in some state of development. Only three of these, however, had been granted rights of occupancy and the legal status of these rights was in serious doubt by the fall of 1976.

Hess, who spent time in Masailand prior to the beginning of the project, reports that "The primary felt needs expressed by the Masai were reduced animal mortality, increased and well-distributed water development and water rights, and rights of occupancy to legalize their land tenure security to protect the development and improvement from encroachment by surrounding livestock owners or cultivators.

---

<sup>43/</sup> Hess ND, p. 16

After some initial skepticism the Masai began to participate actively in the more effective associations. Dues were collected, representatives to the steering committees were elected, dip attendants were hired, marketing was undertaken and large sums of money for capital costs were raised through the sale of cattle.

Perhaps most importantly, through participation in local councils, steering committees and the Range Commission, the Masai gained access to higher levels of government and to political and economic resources which they had not previously enjoyed but were not slow to appreciate.

#### The Decline of Ranching Associations

Despite the progress made in some associations in the early years of the project<sup>44/</sup> by the fall of 1976 associations appeared moribund. They had lost their cattle marketing functions, they no longer could provide rights of occupancy to their members, their members had lost interest in their activities, dues were no longer paid, steering committees were generally not meeting and the Masai Range Commission, which had been created to establish and coordinate the association, had ceased to function as an autonomous agency,

---

<sup>44/</sup> Assessing the progress actually made among the pastoral Masai is complicated somewhat by the fact that the Komolonik Association, which is usually cited as the most progressive, had been started as a pilot project in 1965. Moreover, there is some doubt as to the number of its members who were initially Pastoral Masai as opposed to Warush moving out of the Meru highlands in search of land to till, and the opportunity to adopt a more Masai-like mode of livelihood. Komolonik is also fortunate in being represented at the national level by the Minister of Defense, who has taken a keen interest in the welfare of his home area.

having been absorbed into the general activities of the TANU-run District Development and Policy Committee.

One reason the project was not more effective in its institution building efforts is that the innovative approach prescribed in the project design--one that called for great understanding of "Masai social structure and decision-making process" <sup>45/</sup>--was not reflected in project staffing, recruitment or organization. Project personnel were recruited by the Near East Foundation, which apparently had no appreciation of Tanzanian conditions or the sensitivities required by the project's design. Moreover, because of the way they were hired and assigned, the technicians were generally viewed by Tanzanian officials as regular government employees of the administrative units to which they were individually assigned. For this reason, because of logistic difficulties and because of a lack of effective communication between the project manager, who was in Dar es Salaam, and Tanzanian officials, who after decentralization were in Arusha, project personnel did not function as a coordinated team.<sup>46/</sup>

<sup>45/</sup> From the original project PROP cited above.

<sup>46/</sup> The difficulties encountered in recruitment and organization are discussed at some length in the Utah evaluation report and steps have been taken to correct them.

Under these circumstances, the approach of having "the technicians spend the majority of their time in the field gaining an understanding of how to work within the Masai social structure," which was considered essential in the project's design, was not, in fact, even attempted, much less accomplished.

The experience and frustrations of the project's first rural sociologist are illustrative of the difficulties involved in carrying out the project's sociological and institution-building goals. They are of particular interest in light of AID's attempt to use social science more effectively in the design and implementation of its new directions projects.

The rural sociologist, James Hamilton, was, in fact, a social anthropologist who had conducted two years of field research among the Karen of Thailand. His first contact with USAID was through a haphazard contact with a USDA official who asked him if he would like to go to Africa to do the feasibility study of another project in Tanzania. When he arrived in Washington to be briefed on the project (by USDA officials working on a PASA agreement with AID), he was unable to learn the name of the ethnic group with whom he was to work. In fact, he was unable to learn the identity of the group or their language until after he had arrived in East Africa. (The project was among the Kuria.)

A year later he was asked to take the position of rural sociologist in the Masai project, though he knew nothing of

their language or culture. His frustrations began as soon as he arrived to help implement a project that others had designed only to find that:

This plan (the Masai project) had some serious flaws, such as the failure to take into consideration the relation of cultivators and herders to each other and to the land, or the settling of grazing, occupancy, and water rights.<sup>47/</sup>

His work was made difficult and ineffective by a lack of agreement on methods or purpose between himself and both AID and Tanzanian officials.

There was also little appreciation of the time an anthropologist needs to understand the situation in which he works. Officials generally acted as if they believed that cultures only operate from nine to five and that project personnel must be "busy" during that time. When I insisted on learning some Swahili (the official language but not the language of the Masai), the other project technicians reacted first with surprise and then complained that I was wasting time. It was difficult to convince AID that some of my research data had to be collected on American and Tanzanian bureaucratic characteristics, which meant that I could not be "in the field" all the time. It was not understood that I had to carry out research apart from other technicians in order to develop more than superficial rapport necessary to collect detailed socio-cultural data. Often "windshield surveys" carried out by the whole team were considered research. They expected me to hop out of the car from time to time and ask some native person a question or two. Some of my own research was seen as merely "having a good time" by "socializing with the natives."<sup>48/</sup>

It was not clear to anyone what I was expected to contribute to the project. Indeed, I was considered excess baggage by some. Both the

---

<sup>47/</sup> Hamilton, 1972, p. 122.

<sup>48/</sup> Hamilton, 1972, p. 126.

Tanzanian and American governments saw me as a salesman or miracle worker in transforming Masai social customs, and they were disappointed when I could not produce immediately. USAID was ambivalent concerning my desire to do additional research in a control area, where no project work was being carried on. The Tanzanian officials believed such research unnecessary since they "already knew all about the Masai."<sup>49/</sup>

As the result of neglect of what was regarded as unnecessary or luxurious data gathering there is, as has been noted, still no system of recordkeeping for monitoring human population or herd size and composition and little information (except that to be found in Alan Jacobs' dissertation, which is not available at project headquarters in Arusha) on Masai household decision-making. It was only in 1975 that the usefulness of having the project sociologist speak the Masai language was recognized, and then he was given too little training to be effective.

Problems of communication between team members, the Masai and Tanzanian officials also tended to work against what was considered an essential precondition of success in the project design, seeing to it "that the association members be involved throughout in the planning, decision-making and management of the program." There was a tendency towards the top-down communication of development plans and a failure to respond to Masai initiatives, including fund raising, in a timely manner.

---

<sup>49/</sup> Ibid, pp. 12 -127.

The phasing and sequencing of infrastructure so that it would be ecologically sound and strengthen meaningful Masai participation in association leadership was also a problem. Often the provision of water points was ahead of other developments while the provision of workable range management plans lagged behind, and there has been virtually no mechanism for limiting herd size. As government pressure has increased, range plans have been drawn up hastily. There is, as yet, however, no effective enforcement of the plans nor any assurance that they are workable, especially in dry years.

Hatfield and Kuney illustrate these difficulties in building on and modifying traditional institutions very clearly in regard to the provision of modern water supplies.

As much desired as modern (theoretically more reliable) water facilities are by the residents of Masailand, these facilities carry with them a series of technical and organizational components which often on the local level are difficult of realization.

We can draw a parallel between the new and traditional water supplies. The Masai are quite willing to contribute cash for construction of a new dam or borehole, just as they would normally pay for a hand dug well. But, unlike the latter, their contribution usually ends with the first outlay of cash (earnest money), and sometimes even that is not collected.

Construction of the facility and its later maintenance often occupies a separate world, separate and foreign personnel, with little or no involvement from those who use the water. On the whole, the users seem more concerned with their rights of use, not their responsibilities.....

The facilities themselves frequently break down without the assistance of local interference, or the diesel required to run a borehole is not available, so the area remains without water until a truck arrives.

In the traditional system there exists a clear set of rights of use and responsibilities of maintenance which have added reinforcement in an albeit attenuated clan bond. A new facility involves a different and usually broader set of social units which may not share the kinds of allegiances producing cooperation easily. Usually, all the bomas of an area share the facility, which means that a new set of arrangements is required of them. And although the possibilities of wider rings of cohesion are present, they are balanced by the inherent tendencies towards internal competition which the facility also encourages.

When one pipeline serves a number of water points, competition between units can become rife. The result is usually deliberate breakage of the pipeline to prevent those further down from getting their share. And once a potentially stable clean water supply is introduced into an area, it almost automatically introduces a new population center composed of representatives of the various institutions of modern society. At (the same) time agriculturalists as well as outside pastoralists are attracted to the water. Thus, what may have been originally designed for a relatively small pastoral population in the end has to supply an entire new community.

There is no question that the sets of rights and responsibilities associated with traditional water facilities do not exist in the new. It is becoming more and more unusual for locals to be involved in any stage of the planning, locating and construction of a water facility. Certainly, they see only their rights to use it in later stages but not their responsibilities. The facility belongs to a non-existent or relatively non-viable or non-meaningful social unit, which means that no one but the government hired technician has the task to see that it is kept in good repair.

In part, this lack of involvement and responsibility for the facility is due to fluctuations in the development of new forms of cooperation, new social units coalescing. It is also in part a function of a woeful lack of local training in the proper use of a water supply. But it is greatly aggravated by an initial lack of participation in the entire construction process which perdures throughout later use. (italics mine)

Given these factors, it is not difficult to see how necessary local participation in the form of cash outlays, labor, advice, etc., will initiate an integration of the facility into the social patterns of a community and how locally sponsored training for use and repair of the supply will ensure its continuance.<sup>50/</sup>

In sum, the project's failure to involve the Masai in planning, to reward them for their initiative in organization, and fund-raising with inputs, to give them greater opportunity for marketing their livestock more profitably through the associations, to give them more responsibility for the maintenance of dips, headworks on boreholes and the assumption of recurrent costs on all forms of infrastructure, and above all the failure of the association to give the Masai secure rights of occupancy over their land have all contributed to the atrophy of the associations.

#### V. Villagization and Resettlement

Whatever the technological and organization problems of forming Ranching Associations may have been, a more basic

---

<sup>50/</sup> Hatfield and Kuney, 1976a, p. 18

problem arose from a fundamental lack of agreement between USAID and the Tanzanian government on the purpose of the project and the nature of the organizational unit through which this purpose was to be attained. From AID's perspective the purpose of the project was primarily economic, to improve livestock production while changing Masai culture and social organization as little as possible. From the Tanzanian government's point of view, the purpose of the project was political, as much as economic, to integrate the Masai into the emergent Tanzanian national society while breaking down the Masai's distinctive culture and social organization as much as possible.

The organizational unit through which AID sought to introduce economic change, the Ranching Association was to be cooperative, operating in a market economy and managed by traditional Masai local group leaders, who are invariably the holders of large private herds. The organizational unit through which the Tanzanian government is introducing its socio-political reorganization of Tanzanian society throughout the country is, at least ideally, a communal village in which the means of production are supposed to be held collectively and political leadership is monopolized by younger, educated bureaucrats who belong to Tanzania's only political party. TANU.<sup>51/</sup>

---

<sup>51/</sup> While collective cultivation has been greatly diminished following the poor harvests of the early seventies, the idea that land cannot be privately owned remains a basic tenet of Tanzanian political philosophy.

While these differences in objective have been clear, at least since the early 1970's, they have not had great direct impact on the Masai project until the past year when the formation of resettlement villages has created increasing confusion concerning the viability and functions of the ranching associations.

The objective of reducing ethnic variability and "tribalism" which is shared by most contemporary African governments carries particular urgency for the Tanzanian government in regard to the Masai, for they are the largest linguistically and ecologically distinct (i.e., non-Bantu and pastoralist) people in the country. Moreover, they have little respect for the border with Kenya, where there are also numerous Masai.

It is not surprising, therefore, that there has long been pressure from the government on the Masai to adopt western-style clothing; to attend school where they learn the national language, Swahili; and, to a lesser extent, to settle down and practice more agriculture.

The Masai project was based on a concept of cooperative or group ranches that was conceived by a number of expatriates and donors in the 1960's before the Tanzanian government had enunciated the principles of ujamaa. Potential problems between project goals and ujamaa became apparent as early as 1971. A memo by the first project sociologist, dated 13 July 1971, describes a meeting of Tanzanian and AID personnel at which the issue surfaced but was not resolved. Having left

the project because of differences with AID, the same individual wrote in 1972 that:

The project appears to be failing due to planning flaws (i.e., the failure to take into consideration the relation of cultivators and herders to each other and to the land, or the settling of grazing, occupancy, and water rights) and to ideological differences between USAID and the Tanzanian government over project goals. The legitimacy of the project has been seriously questioned by the Tanzanian parliament. 52/ (Italics mine.)

The dangers of introducing the standard version of the ujamaa village, a nucleated agricultural settlement, in Masailand was recognized and the idea opposed by AID. Writing in the mid 1970's Oleen Hess, former food and agriculture officer in Tanzania, argued that the project's ranching associations with their cooperative organization were, in fact, a highly successful form of ujamaa communities<sup>53/</sup> He also noted that, although discussions had been held and the desire to establish ujamaa villages expressed, no action had been initiated by TANU.

By the spring of 1975, it was clear that there were to be units, called kijiji (sing.:ujiji) or villages, which were to be created through planned resettlement. Just how this was to be accomplished was not clear, and in a report dated May 29, 1975, Hatfield expressed concern with the idea that the villages,

---

52/ Hamilton, 1972, p. 122

53/ Hess, ND, p. 48

which were to be much smaller than the ranching associations, might be given rights of occupancy which would pre-empt the rights of the latter, causing serious ecological and institutional problems.

The administration's plan for the resettlement and "villagization" (in administrative terms) of the Masai did not become clear until 1976. The usual settlement pattern has been greatly modified to suit Masai conditions, due in part to the advice of AID project personnel. In recognition of the special needs of the Masai ecology each settlement consists of bomas (which remain the basic coresidential unit) located in an arc about one half kilometer apart. The settlement may be as much as ten kilometers in length. The location and orientation of the bomas are to be based on the availability of natural or newly created water sources and are intended to facilitate each boma's accessibility to a school, a clinic, a store, and other amenities at such time as these can be provided.

Ideally, each settlement (that is, official ujiji, or village) has exclusive rights of occupancy and a range management plan. The women, children, and elders are to spend much of their time in the settlement bomas with a small herd of milk cows and calves. The rest of the herds, which are to be tended by the young men, move seasonally from the wet season pasture, which is farther away from the settlement, to the dry season pasture, which is closer to the settlement and its all-year water supply.

In attempting to implement this plan of resettlement, the administration in both Kiteto and Monduli districts appear to be following the line of least resistance. The first step was to villagize all the non-Masai agricultural peoples in the districts. It was hoped that provision of better social services to these people would demonstrate the advantages of resettlement to the Masai. Administrators interviewed claimed some success in this respect. The next step has been to resettle Masai in areas that already have water sources and adequate pasture. This has meant, in reality, that the traditional localities have been used as the basis of the resettlement villages and the relocation of boma sites, usually not more than a few kilometers, has not had great effect on social relationships.

While there is, in theory, a lower limit to the number of families in a village, this limit has not been strictly adhered to, and settlements vary in size according to the availability of water. Moreover, a single "registered village" from an administrative point of view often consists of several separate lines of bomas, each oriented to its own dry season water source and range.

A report issued in Kiswahili by the regional administration in Arusha indicates that up to May of 1976 36 percent of the population of Kiteto district and 31 percent of Monduli district had been resettled. It also indicates that 27 out of a

projected total of 139 villages had been registered. Agricultural peoples in the districts are certainly over-represented in these figures. A rough and ready survey by Hatfield in October of 1976 indicates that in the two districts together settlement has been completed in 28 villages and has begun (i.e., surveys have been done, sites located and people have started moving in) in another 19 villages. The regional report and Hatfield both indicate that resettlement has been undertaken only where water supplies are available. In the absence of additional water points it is clear that the regional government will not be able to keep its original schedule of completing resettlement by the end of the calendar year.

The procedure employed in resettlement involves the participation of both government officials and Masai leaders, though the issue is where and not whether to move. A planning team representing the district administration visits an area and consults with the "elders" who may be members of a ranching association steering committee, the heads of bomas in the locality or members of some other council accessible to the government. Ideally, the team is composed of water, range and agricultural technicians, as well as TANU party officials. Often, in fact, much of the work is done by the Katibu Kata, the head of the lowest political unit, the ward, with the help of the assistant field officer from the district.

The planning team explain to the elders that they must select a location for the new settlement and sites for the bomas that will conform to the new rules. Two or three meetings of this kind are held over a one-to-two-month period. A subcommittee is appointed to develop a resettlement plan. There is much discussion, but some plan must be accepted and, after it is accepted, must be implemented with a fixed time span, usually about two months.

Ideally, resettlement is supposed to be based on a detailed technical plan for grazing, a stock quota and sites for bomas. The plan is to be based on a careful investigation of available water resources and grazing areas. In reality, even in cases where Masai project personnel have been involved, planning has been ad hoc. Villages have simply maintained their former range use system except that they are being urged to divide their herd into a milk herd and a beef herd (noted above) and to practice greater stringency in maintaining grazing reserves for the dry season. Where settlement has been planned by district and ward officials alone, usually only a residence plan has been developed. It is expected that surveys and plans will be developed at a later date.

Though there has been no systematic survey of Masai attitudes toward resettlement, it is useful to summarize the evidence obtained from Tanzanian (non-Masai) officials, project officials, from the Masai and from other knowledgeable observers sympathetic to the Masai. Two things are

particularly noteworthy about these reports: the essential agreement in most respects between all reports, despite differences in their perspective and interests; and the largely pragmatic character of Masai attitudes. To a great extent, both positive and negative attitudes reflect the same Masai concern with economic and political security.

On the positive side, Masai household and boma heads favor resettlement to the extent that they believe it will give them secure rights of occupancy in land and water, reduce conflict (in some cases physical) with agriculturalists who are encroaching on their land, and give them a larger role in local self-government. They also are willing to resettle if doing so will help them to obtain more water, cattle dips and veterinary services. While the idea of compulsory education is certainly still seen by many as a threat to the maintenance of a Masai way of life, there seems to be growing recognition in areas where there has been encroachment and conflict that education and literacy are valuable tools for dealing with the administration.

Tanzanian officials place greater emphasis on the Masai desire to obtain new services, and the Masai seem most concerned with rights of occupancy. All observers agree, however, that the Masai are asking for range management plans which, at present, are clearly valued more because they confer rights of occupancy than for their range management value.

On the negative side, all agreed that the Masai were afraid there might not be enough water and dry season pasture available to permit more sedentary or concentrated settlement, and that the Masai were afraid of being forced to give up their traditional culture. More specifically, Masai complained that resettlement would make it hard to optimize the use of outlying wet season pastureland, that it was ecologically unsound to create all-year settlements on dry season pasture<sup>54/</sup> and that it would not be possible to stay in the settlements in dry periods when local water supplies or pasture were exhausted.

Some Masai also are reported to fear: being forced to change their clothing, hairstyles and other symbols of their cultural distinctiveness, being forced to de-stock and having their herds collectivized.<sup>55/</sup> Some Masai also expressed the view that the government was too slow in keeping its promises (i.e., to provide better services and rights of occupancy) and that they feared excessive government control in resettlement communities.

---

<sup>54/</sup> According to one report, this complaint has a ritual dimension, since the proposed use of dry season pasture during the wet season by the milk herd violates the curse of the Masai ritual expert.

<sup>55/</sup> While collective herd ownership seems threatening to the Masai and inefficient to American project personnel, senior administrative officials in the region told me that indeed it was their ultimate goal.

An assessment of the probable "costs and benefits" of villagization in Masailand must be even more tentative than an assessment of Masai attitudes towards this process. It is essential in making this assessment to distinguish between the geographic aspect of villagization, resettlement, and the institutional aspect, the creation of a new corporate legal and political entity.

The most obvious cost of resettlement is the construction of the complex of thorn fences and low wattle and daub houses that constitute a boma. While it is true that this task may be undertaken every few years in any case, it is not costless. Reuben Kuney estimates, from observation in his natal community, that the construction of the fences for an average boma requires the labor of ten men working five hours a day for about two weeks. Each married woman must also build her own house, a task that will occupy her for about two months, if she works at it between other chores, for two or three hours a day.

Since the traditional location of residence sites is based on free choice and a detailed knowledge of livestock needs, local water supplies and grazing land, and long experience with the risks and uncertainties of climatic variation, it is most unlikely that hurriedly planned and required relocation alone will enable the individual household head to improve his returns on labor or his security. On the contrary, unless new infrastructure is provided, it is very likely that resettlement will result in less efficient livestock

production from the household head's point of view.

If, on the other hand, desired infrastructure is provided, especially water and cattle dips, households and bomas will relocate without the intervention of the administration.

Resettlement, as currently planned, also involves a major reorganization of labor inputs and supervision, since it requires the division of the livestock into a home-based milk herd and more mobile herds that remain permanently away from their owners' homeboma. This reorganization of herding deprives the owner of the opportunity, much valued by the Masai, to watch his herds and flocks come home into the safety of his boma each night. Whether this lack of daily surveillance over livestock condition and day-to-day grazing patterns will have a deleterious effect on livestock health is not known.

While resettlement is the most visible aspect of villagization, in the long run it is the legal and political incorporation of the village that may have the most profound effects on Masai society. Once registered, the village, or ujiji, is to constitute the fundamental building block of economic, legal and political life. It is to have a range management plan, legal rights of occupancy, a stock quota, by-laws, and the responsibility for economic development and the provision or allocation of social services. The village is also an important unit of the nationwide political party organization of TANU.

Since the village preempts the jurisdiction of the ranching association in most respects, it is not surprising that the creation of villages has led to a decline in the association. While this eclipse of the ranching associations, which were an integral part of the AID project design, clearly creates some organizational confusion and has some costs in terms of previous project efforts, the basic question is whether the village is potentially a more effective unit for the equitable development of Masailand.

The answer to this question lies in the relationship of the village and the association to traditional units and to each other. The village, to a large extent, corresponds geographically and socially to the traditional locality, the most important supra-boma unit, for resource management and dispute settlement. The association is composed of several traditional localities and tends to correspond to the maximal area of herd movement in response to climatic variation short of severe drought.

The village is thus potentially a more effective unit for enforcing regulations (including de-stocking) face-to-face communication and the coordination of decision making. The association, by contrast, is a less effective unit of organization or enforcement but a more appropriate natural unit of range management since climatic variation makes it virtually impossible for each village (i.e., traditional locality) to operate as a self-contained management unit.

The optimal solution to this paradox would seem to be to organize and redefine the functions of the association so that it is responsible for the coordination of range management between villages and for the services that can be most efficiently provided on a supra-village level. At the same time the association and its residual functions could be incorporated into the ward organization instead of being an independent geographical and administrative unit which must rely on the ward administration for the enforcement of its decisions in any case.

Like resettlement, villagization and the restructuring of the activities of the ranching association face a number of difficulties that will present a great challenge to the Tanzanian administration and AID project personnel. At the center of these difficulties lie the rather different perspectives and objectives of USAID and TANU personnel.

As has been noted, ranching associations and the now defunct Range Commission were purposely established as semi-autonomous organizations staffed by Tanzanians and Americans whose primary concern was improving Masai livestock production. Through the associations on the one hand and its direct relationship with technical ministries and high level political officials on the other the Masai project was able to act as a lobby for the promotion of what was seen (by project personnel) as Masai interests alone.

Villages, by contrast, are an extension of the administrative and political structure of Tanzania into Masai society for the purpose of transforming that society. Moreover, district and regional administration, of which the villages form a part, must regulate the allocation of scarce resources in the form of natural resources and developmental expenditures between a number of distinct and competing interest groups, of which the Masai are but one. Finally, they must balance the needs and demands of the various agricultural and pastoral groups in Masailand with the economic and political needs of Tanzania as a whole. 56/

Because villagization is part of a process of political and societal transformation, because of the pace at which it is proceeding and, above all, because it is taking place against a background of increasing competition for resources in Masailand,<sup>57/</sup> it is fostering "a growing pattern of misunderstanding between pastoralist, administrator and technician."<sup>58/</sup>

Under these circumstances there is the danger that the Masai will misinterpret the motivations of the administration and

---

56/ It was precisely because of this potential conflict in purpose and jurisdiction that some observers like Hamilton expressed doubts about the viability of the Ranching Associations. A similar conflict led to the collapse of an FAO project in Sukumaland.

57/ There is evidence that villagization itself, with its promise of land rights, is creating a mini land rush as agriculturalists hurriedly stake out claims to land by fencing it prior to the registration of new villages.

58/ Hatfield, 1975, (End of Tour Report), p. 19

become yet more defensive in their attitude towards it and its programs. There is, thus, the danger that the very real competition for resources in Masailand will reinforce negative stereotypes about the Masai, stereotypes which may themselves become the basis of repressive and counterproductive administrative action.

\*\*                    \*\*                    \*\*                    \*\*

The months ahead will prove to be critical ones for the Masai project, the Masai and the Tanzanian administration in Masailand. If the policy of villagization is pursued with patience and the full participation of the Masai, the traditional locality may become transformed into a new organization capable of securing rights of occupancy, maintaining ecologically sound stocking levels in cooperation with modern management and marketing facilities, and moving towards the attainment of the Tanzanian government's goal of local self-reliance. 59/

If, on the other hand, overzealous officials try to force the Masai to resettle in inappropriate locations, to abandon their distinctive cultural identity, to adopt unsound or uneconomic herding practices, it is likely that there will be demoralization and unrest on the part of the Masai and that the progress that has been made by the project will not continue.

---

59/ To speak of participation is, of course, an oversimplification. Masai society is divided by age, sex, wealth, kinship and locality. Analyzing the optimal way of mobilizing these internal interest groups is beyond the scope of this paper or the proper role of a donor such as AID.

What will happen will depend on the understanding, judgment, and cooperation of the Arusha regional administration, project technicians and the Masai themselves. A report written by an outside observer cannot be accurate in every detail or analytically complete. It is hoped, however, that by raising important issues in a frank way this report will contribute to the constructive dialogue that has already been established between those concerned.

## VI. Conclusions

### 1. Overall assessment of the impact of the project on the Masai:

a. The project has been extremely successful in creating an awareness of, and a demand for, improved water technology, dipping, veterinary service, and improved livestock throughout Masailand.

b. The project has had mixed results in establishing Ranch Associations. On the positive side, in its initial phase, it demonstrated that it is possible to mobilize capital and labor through traditional Masai local councils. On the negative side, no new associations have been formed in several years and existing associations appear to have lost some of their rights, functions, and vitality.

c. The project has had only a marginal impact on the economic life or monetary income of the Masai.

d. On the basis of available evidence, it appears likely that the project has contributed to the deterioration of the grazing environment in some areas by fostering overstocking around bore holes and cattle dips.

### 2. Masai attitudes and economic development

Although the Masai are under strong peer group pressure to maintain the clothing and life style that symbolize their ethnic identity, there is no evidence to support the view that a major impediment to progress in increasing offtake is their

"traditional attitudes" rather than their material interests. On the contrary, historical and ethnographic evidence indicates that the Masai have tried to adapt to their changing circumstances in a rational manner in an attempt to maintain their high protein diet and avoid risks due to animal disease and climatic variation. Specific evidence of this includes:

(1) The complex and ecologically sound range and herd management practices of the Masai prior to the great reduction of their access to dry season water and pasture that has occurred during the present century.

(2) Early attempts by the Masai in Kenya to enter the cattle market. Despite the repression of these attempts until the second world war in response to the pressures of white settlers who could not meet Masai competition, the Masai engaged in a lively, if illegal, cattle trade.

(3) The doubling of cattle sales in Tanganyika that resulted from the sharp price increases between 1948 and 1953.

(4) The eagerness of the Masai to obtain project inputs and their demonstrated willingness to sell cattle to pay for them.

### 3. Major problems facing the Masai today

The most important problems facing the Masai today are not the "drought" which is an expectable and recurrent phenomenon

that currently affects only a part of northern Monduli district. Nor is it the Masai's "irrational" tendency to cling to their "ancient way of life." Rather, it is the ecological deterioration that is resulting from the increasingly rapid encroachment of much of their better dry season range land and water points by bean farms, agricultural settlements, and game parks and from related overstocking. Overstocking around bore holes may be contributing to this environmental degradation, but it is not its major cause.

#### 4. Ranch Associations

In the first phase of the project the Masai were eager to participate in Ranch Associations through their traditional local councils because they wanted to stop encroachment on their land and water. Subsequently, as a result of the Masai project activities, a strong demand developed for cattle dips and veterinary services. Interest in obtaining range management plans was largely due to a desire to obtain secure rights of occupancy rather than to an appreciation of the advantages of modern range management practices.

In recent years, the Masai have (with some exceptions) shown less interest in Ranch Associations. Major reasons for this are:

a. The Tanzanian government's insistence on paying all or most of the recurrent costs associated with water supply

and dipping services has created a "dole" mentality instead of developing self-responsibility.

b. Effective rights of occupancy have not generally been obtained through associations. Hence, encroachment has continued.

c. It has not been technically or administratively possible to meet the high expectations for improved water supplies and dipping services in some areas.

d. For the past year, the Tanzanian government has been focusing its attention on the establishment of resettlement villages which appear to have range management plans, rights of occupancy, and control over new water supplies that conflict with or supplant those of the associations. At the time of writing, there is great uncertainty as to which rights and functions, if any, will be accorded to the associations.

Whether or not the development of a few "model" ranch associations is a feasible or desirable project purpose should be carefully reviewed by the project manager and Dar mission. Assuming that the difficulties noted above are overcome, the concept of developing a limited number of associations is valid if it can be reasonably be expected that they will be economically viable and self-sustaining and that they will have a spread effect. In view of present difficulties in maintenance and management, however, it is uncertain whether model associations will be economically

or administratively viable after the withdrawal of project personnel and support. At present, there also appear to be serious questions as to whether the Tanzanian government will support the concentration of project inputs in a few associations because of its implication for benefit incidence and, at the local government level, because of pragmatic political considerations.

If it becomes evident that the creation of Ranch Associations is not practical, the project either should focus its attention on the villages in a few wards or should assist the Tanzanian government in providing infrastructure throughout Masailand as, in fact, it is now doing. The latter alternative would be consistent with a possible reorientation of the project towards the quality of life of the Masai rather than the commercial production of livestock.

##### 5. Destocking

From an ecological, economic, or a sociological perspective perhaps the most challenging problem facing the Masai project is the reduction of livestock. As has been noted frequently in project documentation, such a reduction would reverse the apparent degradation of the environment and would generate incentives for the Masai to increase their investments in higher quality livestock, better range management, and disease control.

The causes of overstocking are complex and have not been subjected to careful study. Factors which appear to play a role include:

a. The maintenance of large herds reduces the risk that a family will find itself below the subsistence level if drought or disease decimates its livestock. Overstocking, for this reason is, to a large extent, a cyclical phenomenon.

b. As eco-stress increases due to an increase in the human population in relation to dry season carrying capacity of the range, milk and meat production per livestock unit begin to decrease. Herdsmen near the subsistence level are thus forced to increase their herds to maintain the same level of production which, in turn, leads to still greater degradation of the range. While this circular process of increasing eco-stress has progressed much farther in Kenya, there are indications that it is becoming a problem in parts of Tanzania as well. The increasing dependence on maize, a formerly disdained food, and signs of range deterioration support this contention.

c. The maintenance of large herds is not necessarily a sign of stress or risk aversion. It is also a form of saving capital for the further expansion of a man's "family firm". For cattle can be converted into wives for

---

the family head or his sons, and the wives produce sons who provide additional labor for herding as well as a following of dependents and the prestige of controlling a large and well-stocked boma. This is not to say that Masai emotional attachments for their kinsmen are not strong, but to indicate that it is an individual's interest to increase his herds, even when they may be sufficient for his immediate needs and security.

d. Even when Masai are aware that overstocking is a problem, each individual is unwilling to reduce his utilization of the collective resource (the range) by reducing his herd size because he has no assurance that others will follow suit. His situation is analagous to that of an A.I.D. official who does not take a voluntary pay cut despite his recognition that high wages contribute to inflation.

There are a number of approaches to solving the problem of overstocking or as it is euphemistically termed in Masailand, "herd improvement." None of them will be effective by itself but it is useful to review some of the probable costs and benefits of each:

a. Increased demand for consumer goods and for maize grown outside Masailand. While this factor may be of great importance in the long run, at present Masai are interested in comparatively few manufactured goods and the distribution of even these goods is unreliable.

b. Shifting a higher proportion of capital and recurrent costs of village and ranch association infrastructure onto the Masai will also generate a higher level of livestock sales. This approach has contributed to sales in the past but it is impeded by the Tanzanian government's insistence on trying to provide most services free of charge, and by the inability of the government or the project to meet the high level of Masai demand for capital improvements and services, even when the Masai are willing to pay for them. Nevertheless, this approach to increasing off-take is highly desirable since it will strengthen and "modernize" existing broadly participatory forms of Masai social organization and place the responsibility for creating and maintaining infrastructure at the organizational level that actually benefits from it.

c. It seems almost certain that, in addition to other measures that may be taken, government regulation and enforcement of stocking levels will also be required. Such regulation could be effected in several ways:

(1) At present, there is a national requirement that ten percent of all livestock be sold throughout Tanzania annually. The main difficulties with this rule are that it is not being enforced, that it would not effect destocking if animal husbandry practices are improved sufficiently to offset the higher offtake, and that the Masai around cattle markets tend to reinvest the proceeds of cattle sale in more cattle, thus, in effect, becoming cattle traders.

(2) Destocking could be accomplished most rationally by a progressive tax on family herd size (with deductions for dependents). This form of taxation would replace the present 23 shilling fixed marketing fee which is regressive and inhibits legitimate sale. Such a tax, however, would be difficult to administer, would be politically unpopular, and appears to be contrary to TANU philosophy.

(3) A third approach to destocking would be to impose collective fees, fines, or other sanctions such as the reduction of services on those villages or ranch associations that do not meet their destocking quotas. This collective approach has the advantages of being administratively easier to manage, of placing the responsibility on Masai-run villages or associations and thereby strengthening them, and of being consistent with Tanzanian political principles. Its main disadvantages are that it might create political problems for local authorities and that it is very difficult for the Masai to agree upon an equitable way of allocating the responsibility for destocking. In Kenya, where the problem is more acute, there has generally been disagreement on this issue between the large and small holders. A fixed ratio reduction formula may reduce a small holder's herd below the subsistence level, while a more progressive formula is opposed by the larger holders who, at present, are also local leaders.

It must be emphasized that, regardless of which approach is taken to the problem of destocking, no progress is possible until an effective system for monitoring herd size and range condition is established. Baseline surveys will not serve this purpose. It should also be recognized that destocking is a politically sensitive issue among the Masai and that USAID's role in destocking cannot be more than consultative and collaborative.

#### 6. Health Care Delivery

While the improvement of health care delivery has not been an objective of the Masai project, it is somewhat paradoxical, in light of AID's commitment to the rural poor, that the project has provided health care for livestock and not for people. In view of the low rural status of women among the Masai and the difficulty they have in obtaining even rudimentary health services for themselves or their children, at present it would be desirable to extend MCH services in Masailand.

#### 7. Resettlement

The general Tanzanian concept of villagization has been modified in Masailand to fit the Masai's pastoral ecological setting. Ideally, each new village will consist of several smaller, spatially separate sets of bomas oriented to a

local water source. The bomas are to be arranged in an arc and to be spaced approximately one half kilometer from one another so that each boma has its own paddock. Ideally, each village community will have access to improved educational and health services.

The Masai attitude towards resettlement is positive insofar as they believe it will obtain secure rights of occupancy, water, and health services for their cattle. They are apprehensive in some instances as to whether the infrastructure available at the time of resettlement will enable them to remain in their new locations. To date resettlement has been undertaken only in areas where sufficient water is already available. The program of resettlement is currently receiving the highest government priority in Masailand.

#### 8. Data collection

The difficulty of making rational planning and management decisions in the absence of basic data is great. While the most urgent needs are for range condition and herd monitoring, from a socio-economic perspective there is an urgent need for more information on decision making in Masai households. Of particular importance is information on family budgets and time budgets. Such information gathering and analysis is not an unnecessary or expensive luxury but would have a high cost-benefit ratio.

## VII. Recommendations

The following recommendations for project revisions reflect the analysis of Masai ecology, economy, and society presented in this paper. They are consistent with the "New Directions" in USAID policy and with the developmental policy of the Tanzanian government. They do not, however, represent a complete or exhaustive list of recommendations for project revision but rather are intended to complement the recommendations of the Utah Evaluation Team, Masai project personnel, and USAID officials in Tanzania.

It is recognized that there are limitations on the extent to which the Masai project can be modified in view of existing staffing and commitments to the Tanzanian government. It is also recognized that there are inevitably tradeoffs between economic, social, and political considerations in the process of project revision. Nevertheless, the issues raised in this paper are of central importance to the success of the project and its impact on the lives of the Masai people. It is therefore important that the following recommendations be given serious consideration in the process of project revision.

### Recommended Goal:

To improve the quality of life of the Masai by assisting the Tanzanian government in its efforts to integrate them

more fully into the national economy and policy.

Recommended Purposes:

1. To improve the quality and reliability of food production and the nutrition of the Masai.
2. To increase the income of the Masai and their participation in the national economy through the increased production of improved livestock (cattle and goats).
3. To improve the health of the Masai, especially that of women and children, who presently have even less access to health care than do men.
4. To improve the capability of the Masai to participate in administrative decisions that affect their access to water, grazing land, and governmental services.
5. To protect and improve the physical environment on which the present and future welfare of the Masai depends.

Recommended Actions: <sup>61/</sup>

1. Work at all administrative levels (including the Mission) to assist the Tanzanian government in implementing its policy of local self-reliance by shifting recurrent as well as capital costs of infrastructure (water supply,

---

<sup>61/</sup> While each of these actions can be disaggregated into inputs, outputs and, in some cases, possibly purposes with regard to AID PP documentation, they are presented in their present form for purposes of discussion. It should be noted that points 1, 3, and 13 involve advising the Tanzanian government and its local officials on effective strategies of development as much as they involve technical or capital inputs.

dipping, veterinary service, marketing, and possibly dry season feeder roads) to appropriate Masai organizations (e.g., ranching associations, villages or wards).

2. Assist Tanzanian government regional officials in establishing a low cost "quick and dirty" data-gathering system for monitoring: (a) range condition; (b) number of livestock units on the range in each area; and (c) rainfall. Since there is great variation in rainfall within Masailand, it is essential that monitoring be established at as many points as feasible in terms of cost, transportation, and personnel. Insofar as is possible, objective indicators that do not rely on verbal reporting should be used. The monitoring of stocking levels, for example, might be accomplished with methods normally used for wild game. Ascertaining individual ownership would not be necessary in the near future, since the responsibility for maintaining appropriate stocking levels could be made the collective responsibility of the same Masai organizations mentioned in Points 1 and 3.

3. Assist Tanzanian government in making the provision of livestock services to appropriate Masai organizations contingent on their maintenance of stocking levels indicated as appropriate by the monitoring system established in accordance with Point 2. This would help solve the problem of overstocking without direct policy action; it would place the collective responsibility for working out the details of destocking on existing Masai councils, which have proven

capable of collective range management decisions in the past; and it has a self enforcing low-cost sanction built in, for the withdrawal of livestock services will lead to higher livestock mortality. The major obstacle to the implementation of this recommendation is the reluctance of the Tanzanian government to deliberately withdraw services. It might be argued, however, that services are in fact often withdrawn due to logistic and maintenance problems in a way which bears no relationship to Masai behavior.

4. Establish low-cost extension programs through the rural training center or under the direction of the project anthropologist (Colby Hatfield) to obtain quantitative data on household budgets, time budgets, nutrition, and health. This would require the TDY services of two people: a leading expert on Masai social organization who is fluent in the Masai language; and someone experienced in the design of sample surveys in pre-literate society.

5. Investigate the possibility of introducing improved breeds of goats and browse management.

6. Increase assistance to the Tanzanian government in its program of establishing cooperative stores to supply maize and consumer goods in areas distant from towns. 62/

---

62/ A recent report by Colby Hatfield (Hatfield, September 22, 1976) indicates that the immediate cause of starvation in Monduli district was a breakdown in the supply of maize normally procured through Arusha.

7. Assist the Tanzanian government in providing MCH services to the Masai through newly established village level health workers.

8. Strengthen the rural training center's capacity to foster Masai technical and administrative capabilities at local level.

9. Explore the possibility of assisting the Tanzanian government in establishing radio transmission service in the Masai language for reception on inexpensive fixed channel receivers in Masai bomas or village centers. Each receiver, if located in the boma, would reach an average of 35 people, and thus facilitate the communication of marketing information, information concerning the availability of government services, information about meetings concerning range management or other communal concerns, and generally would serve to link the isolated Masai into contemporary Tanzanian society more closely. According to the project anthropologist, the Masai would purchase receivers eagerly if a portion of the programming was devoted to Masai music and programming in their language.

10. Assist the Tanzanian government to make contingency range management plans that are based on expectable fluctuations in annual rainfall rather than on average rainfall.

11. Improve the Swahili language ability of Masai project staff by prior language training for new staff and by providing FSI materials and monetary rewards for attaining specified FSI ratings for present staff. The inability of most project personnel to participate in regional and district planning meetings, which are held in Swahili, is, according to Jim Fisher, a major cause of the poor coordination with Tanzanian officials.

12. In addition to the above activities, it is essential that Masai project team members coordinate their activities so that range plans, enforced stocking quotas, dips, and water supplies are established in proper sequence.

13. In light of the fluid and critical situation in regard to the resettlement of the Masai at the present time, and the concern over this issue that has been expressed by the recent AG report, it is of the utmost importance that the mission indicate the problem it would have with maintaining support in Washington if violence results from the forced movement of population before adequate infrastructure has been created in the new locations.

VIII: References Cited.

Hamilton, James W.

1972, Problems in Government Anthropology. In Anthropology Beyond the University, A. Redfield, ed. Southern Anthropology Proceedings, No. 7.

Hatfield, C. R.

1975a, Report on Ranching Association and Kata (Ward) Boundaries in Monduli District. May 29, 1975.

1975b, End of Tour Report.

1976a, Safari to Kiteto: August 2-6, 1976. 11 September 1976.

1976b, Sociological Perspective on Drought in Masailand; 22 September 1976.

1976, Current Trends in Masai Development: A Baseline Survey. Masai Project Evaluation Paper No. 3.

Hess, Oleen

ND Untitled Report

Jacobs, Alan H.

1961, Memorandum on the Political and Economic Development of the Masai, Prepared for and submitted to the Institute of Race Relations, London, Feb. 1961

1975, Maasai Pastoralism in Historical Perspective. In Pastoralism in Tropical Africa, T. Monod, ed. International African Institute, Oxford University Press.

The Masai Case

1914, Ole Njogo vs. the G. G. of East Africa Protectorate. 5 EALR 70.

USAID

1969, Non-Capital Project Paper (PROP). Project Title: Masai Livestock and Range Management. August 1969

1973, Evaluation Report: Masai Range Management and Livestock Development Project.

USDA

1968, Livestock and Range Improvement in Masailand: Tanzania. USDA-USAID.

Utah State University Team

1976, Evaluation of the Masai Livestock and Range Management Project.