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AFRICAN LIVESTOCK PROJECTS

A Documentary Review

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INTRODUCTION

During the past several years, the Office of Evaluation has undertaken a series of reviews and assessments of livestock sector activities in sub-Saharan Africa (v. Horowitz 1979; Hoben, 1979, IDA 1980). These reviews critically examined the social, economic, and ecological assumptions which inform project design documents, and they generated a series of conclusions which are applicable to the evaluation of specific interventions in that sector. The Evaluation Office selected the livestock sector for these examinations because it recognized that livestock interventions in semi-arid regions seldom achieve their expectations and that the goals and objectives set by the planners rarely accord with those of the herding population itself. It felt that a better understanding of the nature of pastoral systems would yield more efficacious sector programs and projects, with a greater likelihood of beneficial impacts on the local populations. This report seeks to focus the findings and conclusions of livestock sector reviews and assessments on several specific interventions in sub-Saharan Africa.

Using such documentary evidence as was available at AID/W, supplemented with oral accounts, this report examines the "life cycle" of several AID livestock projects in Africa. The immediate tasks have been (1) to elucidate the objectives, informational backgrounds, and technical inputs which governed implementation activities, and (2) to identify their accomplishments, limitations, and effects. Funding did not permit actual work in the field, and no information could be obtained from the pastoral peoples themselves. A reliance on documentation and oral materials from interested parties further constrained the depth and objectivity of the data. It is within these constraints, that this investi-

gation tries to understand what actually happened in each of the cases examined and tries to assess the efficacy of different types of interventions.

The following project review builds directly on the deliberations of the Workshop on Pastoralism and African Livestock Development. In 1979, in Harpers Ferry, West Virginia, eighty scientists and development officials assembled to "examine the principal social, economic and environmental assumptions that implicitly and explicitly underlie [livestock] interventions." During the three-day conference, individuals from a variety of countries, organizations and specializations identified many of the issues fundamental to livestock development. The Workshop generated a set of seminal principles for guiding action in the livestock sector, including the following:

1. Quantitative data relating to pastoral systems are notoriously unreliable.

There are two reasons for this:

- a. Arid and semi-arid regions experience considerable instability and they are subject to a complex series of cyclical events. Data gathered at a particular time or locale tell us little about events over time and in other places, and even longitudinal data from the same place require great caution in interpretation.

- b. Data gathering techniques are insufficiently standardized to encourage comparability.

2. Management units for development interventions in the livestock sector should be a) small-scale and b) based on existing cultural-ecological systems.

Since the vast bulk of decision-making regarding movements and offtake of herds is vested, within the parameters of local range use agreements, in individual herd managers and that vesting is a function of the microecological context within which the herders must act, projects which pre-empt such decision-making will be strongly resisted.

3. Various kinds of mobility are both crisis-survival mechanisms and effective strategies for long-term exploitation of the range.

Normal transhumant movements provide for a continuous replenishment of nutritious herbage, water, and avoidance of fly-borne and tick-borne diseases. Migration--sudden, long distance movement--is a survival response to drought or epidemic.

4. Semi-arid rangelands can experience considerable biological and climatic stress without necessarily resulting in long-term secular degradation, the very identification of which is difficult.

The shift from long-grass to a short-grass cover does not mean that either the useful nutrient content of the range or its capacity to sustain a certain stocking rate has declined. Semi-arid ecosystems are dynamic, and there is no solid body of evidence to support the accusation that pastoral exploitation including common access to the range is inherently deleterious.

5. The prime emphasis on livestock sector interventions at this time should be to support the subsistence base of pastoral herding rather than to stress commercial activities.

The prime beneficiary of interventions in the livestock sector should be the herding or producer population rather than the urban consumer population. This is not to deny the validity of national needs, nor to denigrate the pressures to increase the contribution of herding to the national wealth. But such contributions will not be assured on a sustained basis until the pastoral producers themselves enjoy a reasonably secure subsistence base.

6. Monitoring and evaluation should be made integral components of every program and project in the livestock sector.

The basic responsibility for regular monitoring and periodic evaluation should be vested in the project management and especially in the beneficiary population (since the latter are most sensitive to project-induced changes in resources), and by doing so increase host-country analytical and managerial capacities.

This report examines specific interventions in light of the 1979 Workshop conclusions and suggests additional guidelines for the design, implementation and evaluation of livestock development activities. Plans for a more

comprehensive, longer-term design and evaluative strategy are outlined in the final section.

The recent donor interest in the evaluation of livestock interventions after the period of funding is a welcome event and may well lead to more effective sector activities in the future. It is hoped that this report will prove helpful in defining the terms of reference for the evaluation exercise.

RESEARCH FOCUS AND METHODOLOGY

This examination of the oral and written documentation of livestock projects was carried out in A.I.D./W. The interventions were considered under common terms of reference and guidelines, including:

- the nature and adequacy of baseline sociological and ecological data, and the degree to which any inadequacies in these data were rectified during the implementation;
- the goals and objectives which the intervention hoped to attain;
- the nature and degree of local participation envisaged and, where the documentation indicates, achieved;
- the input package proposed to achieve the goals and objectives;
- the content of the supervisory reports and evaluations in which assessments are made of the degree to which goals and objectives were achieved, and the explanations given for successes and failures.

This list is by no means comprehensive; each project presented its own avenues of investigation. Often the individuals interviewed broadened the scope of extra-project concerns and helped identify the on-the-ground qualities of interventions.

The initial caveat on the limits of the documentary approach should be repeated. Documents are rarely objective accounts. They are advocacy instruments, aimed at specific audiences, written by persons or institutions with vested interests in their outcomes. The written documents themselves are often scanty, and, where abundant, may be widely scattered and inaccessible to those constrained by time. Many of them contain half-truths, record inputs without responses, assume faulty linkages or simply fail to register vital types of information. This evaluation, which has not benefitted from field observation has had to attempt to separate fact from advocacy. Within this report, informational inadequacies have been modified by consulting a wide variety of documentary material and by supplementing written history with oral history accounts. There is, however, no substitute for field evaluation and this report proposes an on-the-site follow-up to close the gaps of these preliminary inquiries.

Two central questions emerged early in the course of investigation and colored subsequent inquiry:

- 1) What have these projects accomplished and why have they not accomplished more?

and

- 2) Why have the accomplishments been exaggerated and the failings minimized in project documentation?

THE DOCUMENTATION

The project documentation available at AID/W and the supplementary reports issued by the implementors provided the broad informational foundation. Documents consulted included the following:

1. AID Documents

Pre-Project Identification Correspondence
Project Identification Documents
Project Papers
Project Review Papers
Issues Papers
Project Appraisal Reports
Project Evaluation Summaries
Special Evaluations
End-of-Tour Statements
Project Implementation Orders/Technical Services
Project Implementation Orders/Participants
Project Implementation Orders/Commodities
Unclassified Cable Traffic
Memoranda and General Correspondence

2. Host-Country Government Documents

Statements of Governmental Policy
Project Agreements

3. Documents Issued Separately by Implementation and Evaluation Teams

4. Documents Resulting from Individual Research of Technical Specialists

Tracing the history of a project in this administrative/documentary sense highlighted the effect that monitoring and evaluation exercises had on modifying (or not modifying) project design and implementation. It also indicated the alternative input activities which were raised during the life of the development intervention. While a project on the ground stands as a monolithic unit, a project represented by documents is screened through a multitude of viewpoints.

It is unfortunate that 'the beneficiary' himself never clearly speaks in the administrative files. (Indeed, it is rare for the herder's voice to be heard in any published form [v. Laya 1975.]) Documents thus present the praises, criticisms, and reflections only of the designers, implementers, evaluators and other associated development community members.

THE ORAL HISTORY ACCOUNTS

The original research design called for oral history interviews to complement the written materials. As the work progressed, however, it became evident that a project as presented on paper often had little correlation with the perceptions of those involved in the field. Special effort was thus made to contact individuals associated with the project during its various stages; identification, design, implementation, and evaluation. Individuals with a wide variety of technical expertise were interviewed, including agricultural economists, range management specialists, rural sociologists, and veterinarians. Those serving in managerial and administrative capacities were also consulted, such as desk and project officers. A third group of 'project associates' offered advice and observations: Peace Corps Volunteers and individuals contracted on special assignment to host-country ministries; such as USDA personnel.

ORGANIZATION OF THE REPORT

This report is divided into three sections: a summary of conclusions, a presentation of case studies (including specific lessons learned), and a presentation of recommendations outlining a preliminary evaluation and research scheme for livestock development activities. Finally, comments on the current AID evaluation and information systems are added in an appendix.

CONCLUSIONS

- I. Livestock projects (range management projects, dairy and meat production projects, "quality of life" improvement projects) have generally not achieved their goals.
 - a. In one set of projects, the varied projected goals were not simultaneously realizable (working to increase offtake, to improve the quality of life of the rural producer, and to halt range deterioration).
 - b. In another set, the goals initially put forth were eventually deemed inappropriate by implementors and/or evaluators. (After three or four years of implementation activity, projects were radically redesigned.)
 - c. In a third set, the goals selected seemed to be working to the detriment of the rural producer.

In general, one must consider that goals themselves have not been met partially because the goals of developers may not be in harmony with the goals of beneficiaries.

- II. The ability to measure the results of intervention activities varies greatly from project to project.

The reasons are manifold:

- a. There are fundamental methodological problems inherent in any development activity evaluation. It is difficult to disaggregate the effects of the interventions themselves from all other potential causes of change. Further, the field research paradigm employed is often a weak one, rarely involving control groups, *

pretest investigation or samples of the beneficiaries.

- b. There has been a conspicuous absence of theory within the pastoral sector, i.e. causal hypotheses are rarely generated.

J. Helland (1980) elaborates on this informational gap:

A development project is based on a series of predictions about the outcome of certain project interventions....These predictions are rarely explicitly formulated in the project plans in the form 'if A then B will follow'. More typically, it seems, a number of objectives are given ('X,Y,Z... will happen') and a number of interventions are planned for implementation ('A,B,C,...will be done'). What is very rarely stated, however, is if one expects X to follow from A or B or C.

.....

Part of the problem is that the hypotheses on which these projects have been based have not been predictions but prophecies. And since they have failed to clearly state the conditions under which one may expect a certain objective X to be realized ('if A, then X will follow') the hypotheses are unconditional prophecies.

When X does not happen, and the prophecy is falsified all that is known is that in this particular instance, under unspecified conditions, X did not happen (Helland 1980:28-29).

It is thus difficult to measure the project results without having at least a hypothetical idea of what outcome or degree of accomplishment can be expected from any specific input.

- c. There are no simple techniques to assess the dynamics of the production system. ILCA's 1978 report to the Government of

Kenya elaborates on the complexities:

A pastoral production system involves a human population, a livestock population, a natural environment which affects and is affected by both of these populations, and a political-economic environment based on interaction with

other production systems. The dynamics of each of these components are complex, which means that the production systems based on their interaction is very complex indeed...An understanding of the entire production system calls for an interdisciplinary approach which has not been followed in the past (ILCA 1978:15).

ILCA is presently developing the methodology required for separating the components of pastoral systems (i.e. intellectually) into units which can be monitored. However, ILCA officials believe it "unrealistic to expect these monitoring programmes to produce substantial generalizable insights into livestock development within the near future" (Ibid).

- d. Quantitative data are notoriously unreliable. This paucity of solid information has been recognized for years. Stephen Sandford summed up the situation as follows:

Existing data, about the present and past, are almost useless. Unless some (prior) attempt is made to consider the relative importance and incidence of trend, cycle, seasonality and random variation, the knowledge that the cattle population was X thousand on 1/1/1930 and 3X thousand on 6/6/1960 should lead to absolutely no conclusions at all. The same is true for grass cover. Superimposed on this problem is the fact that techniques for counting and measuring change between different surveys, as do the background conditions of public security and efficiency of administration (Sandford ms. n.d.).

- e. Within projects themselves, monitoring systems are rarely included and, in the majority of cases, no benchmarks are set from which to measure the impact of activities. In terms of base-

line ecological and sociological studies, three patterns clearly emerge. Projects in which:

1. No attempt was made to gather baseline data.
2. Information was gathered but the quality of data proved to be both inadequate and unresponsive to meeting the needs of the design and implementation teams.
3. Baseline data gathered were appropriate but not utilized effectively to construct or alter project activities. (In one case, the collection of extensive baseline studies proved to be a source of considerable friction between those who desired immediate, highly visible results on the ground and those who preferred to determine first the local priorities and work with small-scale activities.)

Reasons for lack of monitoring systems are somewhat unclear. It may be awkward for a contractor to have to 'shift gears' within a contract budget, or the host government may not be receptive to lending personnel for what seems to be non-action oriented activities. Project designs, however, do call for routine ongoing evaluative systems--and still these monitoring systems are often not realized in the field.

There is no substitute for these micro-level monitoring units. As noted by members of the 1979 Harpers Ferry Workshop, project specific monitoring systems allow host country scientists to work closely with members of the pastoral populations. Together, implementors and beneficiaries can design local solutions to local problems, and fine-tune the project to the social and ecological realities of the local situation (Horowitz 1980:4-5).

III. Participation of local populations has been virtually ignored in the design phase and has been considered in the implementation phase primarily in the context of choosing a select number of counterparts. (Even host-country project personnel, however, are frequently strangers to the

local district and often members of ethnic communities with histories of hostile relations with herders.)

In many of the design and implementation documents it is unclear exactly who the beneficiaries are, or that they do anything other than herd cattle.

- IV. Most African livestock projects aim at increased productivity (as measured by increased offtake) either as a sole objective or linked with efforts at improving the quality of the range. The meat-production improving activities commonly ignore the complexity of herd produce from the point of view of the pastoralists who include milk, cheese, butter, traction, manure (for fuel, fertilizer, and construction), and offspring as well as the terminal products of meat and hides in their reckonings of bovine bounty. Further, essays at increased offtake rarely appreciate the peculiar demographic structure of the pastoral cattle herd necessitated by such multiple exploitation which requires a very high frequency and absolute number of lactating or potentially lactating females.

What is remarkable is not how many cattle herders own, but rather, given the requirements, how few they actually get by with (v. Dahl, G. and A. Hjort, 1976).

- V. Very few lessons learned have been fed back into the system during the twenty years of livestock interventions. The information systems and methodologies themselves have been so poorly designed as to allow neither for the falsification of hypotheses nor the verification of the efficacy of any singular approach.

Generally no benchmarks have been set, no responses have been systematically gathered from the beneficiaries, and very few final reports have presented the reasons for 'lack of success' in unambiguous terms. In addition, the sites of the interventions have rarely been visited 5 or more years after the development funding cycle is completed.

This brief 'summary of conclusions' has suggested three broad areas of 'structural' weakness within the livestock development sector: 1) a lack of comprehensive, longitudinal study on pastoral systems 2) a poor understanding of the impacts which interventions are having on these systems and 3) a seeming donor reluctance (or simply lack of 'how to') to work on the local level, that is, to identify local priorities, working through local counterparts, optimizing local resources. Future livestock development activities can (and must) be designed to improve our 'state of the art' of the above.

CASE STUDIES

The case studies which follow help to isolate some of the many reasons a particular intervention did or did not accomplish its objectives. As is illustrated below, the causes of project failure are not undiscoverable, although sometimes difficult to isolate. Initial assumptions may be discrepant from existing realities; in some instances little effort was made to encourage local participation and in the case of many projects, host country support mechanisms (from coordination among ministries to shipping of pump parts) often fell short of necessary expectations.

The following three interventions have been selected from the numerous projects investigated. The problems they present occur again and again under slightly different guises.

Botswana - Range and Livestock Management (633-0015)
(Two projects were implemented under this number)

Upper Volta-Village Livestock Project (686-0203)

Kenya - National Range and Ranch Development Project (615-0157)
(The intervention in the Northeast Province will be examined)

The selection was made to encompass projects (1) which were geographically and ecologically diverse (2) which planned to effect a variety of different input activities, (3) which claimed as beneficiaries "pure pastoralists" as well as mixed farmers/herders, (4) which claimed as beneficiaries populations subsisting on small as well as large stock, and (5) which were designed and implemented pre- and during the New Directions Mandates. In addition, some of the better-known projects (such as Mali Livestock I, Tanzania Masai Livestock and Range Management Project) were not chosen; they have been subject to recent intensive field evaluations and audits.

CASE STUDY I

The Botswana Range and Livestock Management Project

The Botswana Project is an interesting case of a potentially well-designed project hinging on the false central assumption that group cattle ranches would be an appropriate intervention to benefit the rural poor. It also illustrates the possibility of a development-from-below project on paper resulting in an impose-from-above project on the ground.

When designed in 1973, The Botswana Range and Livestock Management Project "aimed to develop replicable systems of small range and livestock management which [were] socially acceptable and economically viable." Its longer range goals (1) rapid livestock industry development (50% increase over 25 years) (2) increased income for the small livestock owner and (3) halting of range deterioration were to be accomplished through ranches. Cooperative ranches, communal grazing reserves, and individual ranches were all considered as possible approaches.

Plans stressed that extensive preliminary investigations would contour the project intervention to the needs and demands of the local human and ecological resources.

The project, initiated in 1974, was to be an experimental first phase of a three-phase project. The lessons learned at three small test sites were to serve as models for developing livestock production systems on a larger scale.

Phase I activities included efforts to:

- 1) Determine the physical/technical characteristics of the systems to be tested
- 2) Determine the internal organisations or management which are most apt to be acceptable and practical and which estimate the economic viability of the systems proposed
- 3) Select sites, select participants for training
- 4) Establish technical and sociological baseline data

Among the many activities planned for Phase II, baseline studies were to be completed; data collection systems were to be established and an on-going evaluation system was to be designed which would monitor the impacts: social, technical and economic. From the time of the PROP (May 1973), the greatest barrier to successful implementation was seen in the social/cultural arena. That is, it was assumed that indigenous livestock practices were leading to rapid range deterioration; "traditional culture" abhorred the necessary fencing or water resource control. The strength of the project, however, seemed to lay in its 'planning posture'. Team members would have a good lead time (9-12 months) during which the various test systems could be evaluated for their applicability to the local environment. Design parameters were elaborately described including:

1. Present land use patterns in areas proposed and comments on the scale of units
2. Group identification
3. Types of organizations to evaluate for possible use
4. Range resource inventories
5. Range management plans
6. Livestock management plans
7. Physical resource inputs

The documentation was extremely strong in emphasizing the necessity for involving the small livestock owner at all phases of planning and implementation, and for building in a comprehensive, on-going evaluation component. Why the provision of team personnel did not seem to coincide with perceived priorities is unclear. AID's input package included range specialists, livestock specialists, water resource specialists and even a data processing specialist. No slot was approved for an 'anthropological type'. It was the GOB's responsibility to provide a 'social' specialist. In contrast to the other slots, the provision for the anthropologist was 1/6 time (over the life of the project).

The evaluation of May-June 1976 (by CID Utah State University) brought lots of bad news. Of the three sites selected for development, only one had progressed at anything near the pace expected; at Selebalo Ranch (in western Ngwaketse District) an area had been demarcated, a borehold drilled and some firebreaks established. In the second village, Tlhabala, government officials, project personnel and village members could not agree on the type of organization to be formed. The third site, Tsetsebjwe, was engaged in disputing grazing rights with a neighbouring village, and no group committee had yet been formed. The evaluation team listed water development and research facility accomplishments,

and indicated that participant training had started. The problems, however, shadowed the bulk of the report.

Although sociological surveys had been completed in two of the three sites chosen, the information gathered seemed to have fundamental gaps. For example: Where did these people come from? How were the villages organized? Evaluators felt a number of difficulties may have been avoided had the sociological investigations been more comprehensive. For example, "at Selebalo the appointment of the acting headman as chairman of the ranch committee resulted in problems when the headman returned to the village and could not join the ranch because he owned too many cattle."

The project had more than its share of personnel conflicts. Misjudgments were made of the capabilities and temperaments of the team members (one informant claims that the majority never left the capital city), and various memoranda assert that implementation was drastically bad from the start. The vital extension program suffered greatly as a result of the poor personnel selection. For the same reason, erroneous assumptions in the project design went unrecognized (e.g. small livestock owners did not have sufficient economic resources to participate in ranch development activities.) "One of the major components and essential elements of the project focuses on the formation of individuals in a collective body" (Utal State Eval 1976:17) and yet the team totally lacked expertise in this area of organizing groups.

The evaluation document attributes much of the project's 'less than success' to extra-project influence. The GOB lacked a clearly defined policy in terms of supporting communal groups (the Tribal Grazing Policy was formulated in 1975).

Legal support, and thus the ability to secure loans, was also wanting. "There is no legislation to give groups legal status except the Cooperative and Company Acts, neither of which is suited to large communal areas with a great number of people and limited assets" (Utah State Eval 1976:18). The conclusions of the evaluation team seem unduly optimistic:

Despite unforeseen problems which have hampered achievement, the project served a useful purpose in bringing into focus the magnitude of the collective grazing schemes among small cattle holders, and identifying critical areas of concern (Utah State Eval. 1976:35).

It was recommended as priority action that the methodology for organizing small holders into viable groups be developed. A more direct appraisal of the project came from a member of OSARAC: "We created an outright failure. We came in with a technical solution to what was not a technical problem. The problem was people, with and without resources, and how to identify their needs."

The discrepancies between project design and project implementation were elucidated in a series of subsequent interviews. The on-the-scene description by the senior rural sociologist was as follows:

The three communities chosen for test sites were very different: one was in the sandbelt of the Kalahari and focused on livestock; one was on the border-line edge of the sandbelt and could be called an area of mixed farming, and the third was in an area called the heartbelt where livestock was a lesser part of the economy.

Regardless of the community, the posture of team members was a uniform one; they were in the business of selling ranches. 'Development from below' came under the guise of sales pitch, "We believe range management fencing will improve the range. Your cattle will get fatter, you will get better prices. Now who is interested?" ^{Little} attempt was made to identify local priorities, ^{little} attempt was made to get the community to lead.

In the one community where the evaluation team recorded a successful ranch, the scenario was described in the following manner: A group of fifteen of the more willing beneficiaries decided to raise their hands and participate in ranch development. They had no real commitment to each other and, as it turned out, represented conflicting factions within the community. Their cattle holdings together were not sufficient to support an economically viable ranch; many of the cattle were mafisa (part of a traditional loan system). In addition they needed their cattle to pull the plows and could not afford to send them to cattle restposts. The participants had difficulty in supplying the necessary labor to build the ranch (AID personnel contributed a great deal of the 'physical input'.)

The ranch went bankrupt this year.

The AID project was redesigned in 1977 to emphasize group formation. As activities on the ground actually started in 1978, funds and personnel inputs were dormant for a two-year period. A description of the events of this hiatus serve to illustrate

- 1) How an undeniable failure can effect a radical transformation
- 2) How a range and livestock project can turn into a rural community development project

and

- 3) How AID itself can become peripheral to one of its own interventions

The AID implementation team had proposed a similar ranch intervention in the community of Thlabala. The community had been opposed to the project because 1) it primarily benefitted the wealthy i.e. those who could move their draft animals away from the fields, and because 2) it created restricted grazing areas

out of land which had been traditionally communal reserve. Several community members did choose to participate to obtain water development resources. At one point, however, team leaders asked the community members to elect a representative body. The community response provided a jolt: "This is a government ranch and the government must choose officers." If this was how the community saw the project, AID personnel had indeed been off the track. The development team left the community. The Peace Corps moved in.

The response of the Peace Corps was quick and appropriate. They assigned four group development officers. Simultaneously, an interministerial committee called Group on Groups was organized. With a rural sociologist, all of the above started to identify areas of basic misconception.

Many of the people of Tlhabala had no cattle at all.* They did not want their transport routes criss-crossed by fencing. Those who did have cattle needed them to pull the plows; the idea of laying cattle away in ranches was not a reasonable one. Ironically, the project aim of fencing cattle in should have been flipped backwards. Worried about their crops, the community of Tlhabala did not want their livestock fenced in--but rather fenced out.

When asked their own priorities, this community did indeed have an extensive list of desired projects. They had submitted a plan to the MOA some ten years before which included such activities as:

* This point was elaborated in a Clark/Easton Memorandum n.d. c.1976. "The latest surveys indicate that 45% of the rural households in Botswana own no cattle. It is therefore unrealistic to imagine that our project, as presently designed can in any way help the lower 40% of the rural poor."

1. drift fencing
2. dosing small livestock
3. building small storage depots for market crops

The PCVs and the rural sociologist worked intensively with the community group in helping them to order their local priorities (and presenting various options). Leadership was kept on the local level. Small projects were realized one by one. The community learned from its own body of experience and developed its own managerial sophistication. In a recent issue of AgriNews (a small publication of the MOA) the headman of Thlabala announced that his community had chosen its next management grazing area and that "We are going to build bull camps." The local community seems to be developing its own sophisticated land-use plan.

In 1976, the Government of Botswana formally recognized the importance of working at the grass-roots level and in identifying local priorities. Out of a series of workshops (one with the Botswana Regional Agricultural Officers and one with the Senior District Level Agricultural Staff), government personnel articulated the policy known as the Gradualist Extension Approach. In January 1977 an outline of this policy was sent to the Botswana Cabinet from the MOA. Its essential components are as follows:

Identifying existing groups and community priorities

Uncovering community projects for agricultural development

Supporting these groups and activities and encouraging their development while keeping leadership at the local level.

Through these supported and guided activities communities will develop their own methods of land-use planning and will move towards improved range and livestock management and arable agricultural development.

In 1977, when AID redesigned its project to emphasize group formation, was simply building on a program which was already operating at both a local and national level. In the two years of AID absence, The Peace Corps Volunteers had trained 300-400 Batswana as Agricultural Demonstrators to help organize groups. The AID Range and Livestock Management Amendment (signed 4/22/77) modified its personnel input and increased the number of participants to be trained. Reflecting its new concerns, the project added a Senior Communal Properties Officer, an Evaluation/Communications Officer and a Field Communal Officer. Two additional Batswana also were to be trained in range management, two in rural sociology and two as agricultural extension officers. No major infrastructural transfers were anticipated.

In the two years since the redesign, 475 Batswana groups have become involved in small-scale development activities. Their activities have been listed as follows:

<u>Activity</u>	<u>Number of Groups Involved</u>
<u>Water Supply</u>	<u>149</u>
Boreholes	57
Dams/reservoirs	91
Borehole drilling equipment	1
<u>Cattle Handling Facilities</u>	<u>55</u>
Dip tanks	29
Spray races	19
Crushes	7
<u>Small Ruminants</u>	<u>52</u>
Dips and dosing	52
<u>Fencing/grazing</u>	<u>71</u>
Drift fencing or grazing areas	63
Communal ranches or similar	5
TGLP	3

<u>Miscellaneous livestock</u>	<u>3</u>
<u>Horticulture/crops</u>	<u>33</u>
Tractor syndicates	18
Crops or gardens	15
<u>Woodlot</u>	<u>1</u>
<u>Farmers Committees or Association</u>	<u>109</u>

This contrasts markedly with the outputs of the three previous years: one unsuccessful ranch.

Obviously, changes at the national level permitted or initiated the redirection. In 1978 a new office was established in the MOA whose purpose is to support group activities: The Commissioner of Agricultural Management Associations. In 1978, new legislation, the Agricultural Management Act, defined the rights of groups recognizing their legal status and limited liability.

The 1980 Project Evaluation Summary identified many lingering (and novel) problem areas in the Botswana Range and Livestock Project (which is no longer a range and livestock project, and which is really no longer an AID Project). For example, Botswana counterparts have not yet been identified for many of the key positions and little has been done to teach Group Development Officers techniques of group formation, problem solving, etc. In addition, no information has been collected on the socio-economic level of the group participants or on the benefits which have been received by the 'participants' vs. the 'non-participants'. It was also noted that "there are no data directly linking the group activities undertaken by the program with an increase in production and more efficient use of a resource base" (PES Feb. 1980:36).

In the case of the Botswana Livestock Project, however, it seems that the unsuccessful attempts of one intervention to introduce communal ranches, did lead to a more successful approach. The 1980 evaluation concluded that "The project has considerable potential for improving the rural development process at the local level in Botswana" (PES Feb. 1980:1).

LESSONS LEARNED - QUESTIONS

The lessons learned from the downs and ups of the Botswana intervention come in the form of questions as well as observations. Given that the project was designed to benefit the rural poor, it is curious that many of the assumptions made were inappropriate.

Assumption 1. A livestock project would primarily benefit the rural poor.

"45% of rural households in Botswana own no cattle. It is therefore unrealistic to imagine that the project as designed can in any way help the lower 40% of the rural poor." (Eaton/Clark Memorandum n.d. c. September 1976).

Assumption 2. Ranch development would be the most effective way to articulate socially and economically viable units

The project elucidated the multiple uses of cattle. Efforts to remove animals to isolated ranching reserves would reduce draft power resources. Only the wealthier community members could afford the luxury of treating animals as 'meat' only.

Assumption 3. Offtake should be increased because the market for Botswana beef would be an expansive one.

"With respect to market and meat prices, there is great uncertainty. Botswana's two largest traditional markets have been South Africa and the United Kingdom. Both these markets have been stable in the past but the United Kingdom's entry into the European Economic Community has placed this market in jeopardy" (Utah State Eval 1976:12).

Assumption 4. Small collective groups would be able to bear the economic cost of ranch development activities.

It was only in Phase II, after funds became available through the IBRD Second Livestock Development Project for Communal Area Schemes and through Services to Livestock Owners in Communal Areas (SLOCA) that small groups had significant resources to sustain collective schemes.

Assumption 5. The major "socio-cultural obstacles" could be alleviated by a single rural sociologist working 1/6 time. Likewise, the special local priorities of diverse communal groups could be identified by this lone individual.

LESSONS LEARNED - OBSERVATIONS

1. Technical problems are not always the prime problems. In the case of Botswana, implementors came in with a technical solution to what was not a technical problem.
2. Social aspects should be treated with the same urgency as technical problems themselves. If communal group formation had been seen as the initial primary target, the disappointments of the first three years may have been avoided.
3. What is known at the Peace Corps Volunteer level is not always known at the project personnel level. (What does this say about implementors?)
4. To have widespread effect, one must confront the larger institutional problems; i.e. do not propose small group activities unless the groups have both legal support and possibility for economic subsidy.
5. Livestock interventions must be placed in the larger economic context. The Botswana 'herders' were also active farmers. Multiple uses of the animals must be considered. Extra livestock activity, e.g. land-use patterns, labor demands, etc., must influence planning at the local level.
6. Process rather than content may be the more appropriate focus. In this rural development project, the mechanisms for effecting change, that is, community groups, proved to be the central area of concern.

CASE STUDY II

Upper Volta Village Livestock

An examination of the Village Livestock Project raises some interesting issues. Now at the end of Phase I, Project activities appear to be meeting many of the objectives of the program and the objectives themselves remain valid (cf. PES No. 1). Rumours abound, however, that the funding for phase II may not be forthcoming and subsequent interviews suggest that some of the obstacles may be rooted in ideological differences (i.e. the development approach of the implementors vs. that of the administrators).

The Village Livestock Project started on-the-ground activities in mid 1977 and ended its first phase September 30, 1980. [A formal evaluation is now in

progress.] Development efforts, centered in the three Eastern Regional Development Organizations (ORDs) of Kaya, Koupela and Fada N'Gourma. The purpose was "to develop the capability of the Central Livestock Service and the three ORDs to implement viable livestock management systems which maintain the integrity of the environment".

The current activity was designed as the first of a three-phase project. The outputs were seen primarily in terms of research and testing: collection of baseline data, training personnel and establishment tests sites for demonstrating possible methods of improving livestock health and management (such as controlled grazing reserves, vaccination corrals). The project had a relatively small budget (1,813,000 for the first phase) and AID's contribution was limited mainly to personnel. Team members included one full-time rural sociologist, one full-time livestock specialist and one full-time range management specialist. A soil specialist, veterinarian, agricultural economist and conservation engineer were to be hired on a short-term basis.

The single evaluation (Project Evaluation Summary No. 1, April 1979) asserted that the logical framework was still valid and that "substantial progress, is being made in the animal health program, range management research, gathering of baseline data and organization of the livestock committees (7-8). "The project is developing village livestock strategies which ultimately...will benefit large numbers of people in other areas" (PES No. 1. 1979:9).

Weaknesses in the project were similarly identified by the evaluation team. The project had team personality conflicts, implementation delays, and difficulties in identifying host country counterparts. Those interviewed also suggested

that Mission support was lacking, inappropriate commodities had been ordered (e.g. lassoes) and there had been some weakness in technical expertise. Evaluators recommended that a range management assistant be added to the implementation team, and that future time-frames of the implementation plans not be so overly optimistic.

The objectives of the first phase, as stated in the Project Agreement, have been met almost one for one. Thorough baseline studies provided natural resource inventories, human group profiles, and information on institutional resources and livestock production systems. Special efforts have been made to outline women's roles and the needs/importance of small stock (sheep, goats, poultry, and swine). In terms of implementation activities, accomplishments include the establishment of livestock associations, widespread extension programs, numerous water resources, poultry projects, range management test area, and animal health interventions.

What may perhaps distinguish this livestock project from many other similar interventions is creative quality or 'style' (innovative efforts directly to reach the small livestock owner). The field team seemed to regard the process of development to be as important as the technical inputs. The order of implementation activities was carefully considered. For example, before attempting to organize a woman's poultry project in the community of Koukoundi, team members gained the support of the male component by installing a vaccination corral (and thereby minimizing male/female friction); before constructing animal water resources, the team helped to provide needed human water resources. The team also color-coded vaccination certificates to aid the

illiterate herder. Extension materials were translated into the local language. Pilot grazing areas were delineated by natural and culture-group boundaries. In addition, activities were actually dropped because they were not considered appropriate by the beneficiaries themselves. Herders did not want to grow forage crops; their traditional supplemental feeding with peanut hay was felt to be sufficient.

The project has been operating a scant three years and it may still be too early to determine if livestock associations or range management schemes have really taken hold. Implementation activities appear, however, to be setting a solid base on which to build future interventions.

The questions presented by this project are unusual ones. They may fall neither in the realm of "appropriateness of assumptions" nor "quality of inputs" but rather in a vague category called "justifiable approaches to development". Many of those interviewed raised strong criticisms against the attitude or posture of the implementation team as well as the team pace and propensity to identify activities supplemental to those in the project design.

Objections articulated included:

- 1) The implementors were too research oriented. "They counted blades of grass".
- 2) "They pursued activities which were outside the scope of work" e.g. investigating the sale and collection of brousse wood.
- 3) "They didn't do enough".

The field team, in contrast, felt their philosophy (and thus activities) was misunderstood. The main focus of Phase I was to provide baseline information and the structure on which to build Phase II activities. They were interested in first identifying local resources and local needs, and then designing activities

with the livestock owners themselves which worked to maximize indigenous resources. From the initial months of the project, the field team felt they were pressured to implement -- to deliver visible inputs, regardless of whether they were locally appropriate. They believed the necessity for establishing range inventory benchmarks, a time consuming activity, was not appreciated. The field team also suggested that their implementation of several minimal-cost interventions (such as hand-dug wells for human use), although very much needed, was dismissed simply because they were not directly outlined in the project scheme.

LESSONS LEARNED

There may still be many lessons to be learned from the Upper Volta Village Livestock Project. The findings of the upcoming evaluation should elucidate the quality and longevity of some of these "innovative" interventions. For the moment, however, some important issues are being raised on a theoretical level which may have implications for all small-scale, local participation, maximizing indigenous-resource projects. They include the following:

1. In terms of developing from below, that is, in working with the local systems and resources, should one be prepared for a slower pace of intervention or a less visible/dramatic level of output?
2. In the Village Livestock Project, is the dichotomy (schism) between a) the information gathering-implementation systems and b) the management or administrative systems an inevitable one?
3. Has the importance of 1) establishing benchmarks 2) establishing of intra-project evaluations systems and 3) identifying local priorities been underemphasized by those directly removed from project activity?

The forthcoming field evaluation of the Upper Volta Village Livestock Project will determine whether Phase II funding will be appropriate. If the project is continued, the next few years of activity should elucidate some of the above issues.

CASE STUDY III

Kenya Range and Ranch Development

The Kenya Range and Ranch Development Project was part of a multi-donor, multi-phase scheme to "increase the quantity and quality of livestock production" in Kenya's pastoral sector. Judging from the results, one could claim that a full-fledged infrastructure project blossomed under the guise of a livestock intervention. This case study demonstrates all too clearly the potentially considerable detrimental effect of 'moving money' without understanding the needs and patterns of the local human and ecological resources.

Between 1969 and 1975, a joint effort by the International Development Association (IDA) and the Swedish Development Association (SIDA) made \$7.1 million available to Kenya for range/livestock programs. The GOK contributed an additional \$3.3 million to augment the capital inputs of other donors. AID provided technical assistance for pilot range development efforts in the North-east province of Kenya to stabilize and manage water resources and to control grazing practices.

In 1974, a multi-donor development credit agreement was negotiated between IDA and GOK for the second phase of the Range and Livestock Production Program. As U.S. contribution to this effort, AID authorized a \$9.6 million livestock

development loan to finance a portion of the goods and services required for the planning, design and construction of roads, reservoirs, water points and other facilities needed to develop grazing areas in Northeast Kenya. (The total program then has an estimated cost of \$59.7 million.) In 1977, AID authorized an additional \$3.25 million to provide a reservoir and track maintenance unit for the Range and Water Development Project in the Northeastern Province.

Some of the many activities proposed in this comprehensive, decade-long effort included the formation of 60 group ranches, 100 commercial ranches, 21 company or cooperative ranches, 3 feedlots, the development of 17 million acres of rangeland, the establishment of new markets and the designation of wildlife reserves. While recognizing that these activities are interrelated, this case study will be limited to the Northeast Province Range Development program which aimed to develop about 14 million acres of grazing land in twelve grazing blocks.

Initiated in 1969 and extending through 1974, the Pilot Project proposed simultaneously to halt range deterioration, increase meat production and increase the income of pastoralists. These objectives were to be accomplished by grazing blocks and water developments. That is, if rangeland could be controlled and water resources increased (through a combination of boreholes, deep pans and shallow pans), it was assumed that pastoralists would be able more efficiently to herd their stock and subsequently increase the off-take to slaughter. Goal attainment would be measured by the extent to which rangelands could be brought under improved management schemes and the annual rate of increase in animal marketings. Conditions expected at the end of the project included (1) improved livestock health, (2) dependable output of range-

land products and (3) a markedly reduced need for pastoralists to follow a nomadic way of life.

Project documents described the pastoral populations more as an obstacle than as a beneficiary of good will. They were "people who follow traditional patterns of husbandry which are extremely wasteful in economic terms" and they were also consumers of too much meat. (It was important that "pastoralists overcome their dependence on cattle for their diet".*) Need for social analytical expertise was not anticipated in the project design; the project document did mention (once) that the pastoralists were of Somali origin. (N.B. The project was initiated pre-New Directions.) No formal provisions were made for baseline studies, for the monitoring of ecological and social impacts, for working in conjunction with the local populations, or for setting benchmarks from which to measure progress.

The first comprehensive evaluation (in 1975 by Utah State University) indicated that, in the Northeast Province, considerable progress had been made toward the attainment of goals and objectives. The participant training program had been going well; range and water development in the Pilot Project was extended over three grazing blocks. Accomplishments were measured primarily in terms of outputs: 1250 miles of simple earth roadways or track were constructed,

* This observation is developed in the PROP of 1972. "The present limited beef production methods not only result in low offtake or output, but in poor distribution. Areas where relatively much meat is produced per capita are areas where meat consumption is relatively higher, while in densely populated areas such as Central Province, the meat availability per person per year has been estimated at only about 9kgs. In pastoral areas this availability has been estimated as 25kgs. To provide greater amounts of protein to the densely populated rural areas large quantities of beef must be moved from the surplus areas.... It is also important that pastoralists overcome their exclusive dependence on cattle for their diet" (PROP 1972:11. emphasis added).

43 boreholes were drilled, 16 pans completed. (The documents did not mention that the Kenyans trained to help monitor the range were of Kikuyu origin. These agriculturalists neither spoke Somali nor had a sufficient understanding of pastoral subsistence strategies. The document also did not clearly indicate that only 3 of the 43 boreholes drilled were still operational.)

In the same 1975 evaluation, several major problems were identified. Some of those described include:

1. A lack of basic data and inadequate utilization of that available.

No real analysis seems to have been made of rainfall records. Determination of grazing block size may have been a "seat of the pants judgment" (Utah State University 1975:11).

2. Difficulties in adapting American grazing schemes to Kenyan conditions.

Water is often insufficient in the wet-season grazing areas. Pastures with permanent water must thus be grazed during both wet and dry seasons. The traditionally used 'rest-rotation' systems may not be utilizable under these Kenyan conditions (Utah State University 1975:16).

3. Lack of documentation of accomplishments and results.

"There was no place where project accomplishments could be determined. We were confronted with fragmentary and often conflicting data from a great many sources" (Utah State University 1975:26).

4. Overly intense water development in a limited area.

Permanent water was provided at an average of 9 km. compared with the Government's intention of a 33 km. grid. (There is no explanation of this closer spacing in AID/W files.)

5. Uncertainties in acceptance of improved grazing practices by pastoralists

The team was "unable to assess the wholeheartedness with which range management practices and water discipline are being accepted by pastoral people" (Utah State University 1975:34). "The evidence is not yet convincing that nominally strict adherence to set grazing schedules can be maintained in the N.E. Rainfall may not be sufficiently adequate or reliable to ensure adequate water within the grazing blocks outlined" (Utah State University 1975:34).

In terms of cultural representation, the team also recognized that there was inadequate representation from the various tribal groups in the range management program (i.e. it was exclusively Kikuyu).

All told, however, the evaluation team found no real reason to question the basic project design (Utah State University 1975:72). The overall goals to increase livestock production in semi arid lands, given the proper time frame and sufficient inputs, were within realization (Utah State University 1975:70). Nevertheless, in terms of assumption, the team recognized that:

- 1) It has not yet been demonstrated that range improvement has taken place as a result of project efforts.
- 2) The assumption that pastoralists will become more sedentary and adopt sound grazing practices is likewise unproved.
- 3) The assumptions that GOK would meet the requirements for equipment, supplies and maintenance and provide adequate supervision to achieve a satisfactory rate of development have not materialized.

The conclusions: "the slow progress made has not been due to faulty conceptualization but to poor execution" (Utah State University 1975:72). The Utah State Team recommended personnel, equipment, and monitoring time-frame changes.

In recent interviews for this report, implementors involved in Phase I of this project have taken issue with many evaluation criticisms; they carry the positive posture still further.

In terms of grazing blocks, implementors believe that careful monitoring of ground cover, water resources and livestock numbers and movements took place from the initial intervention. (Purportedly, specific reports can be found in the Office of the Ministry of Agriculture, Nairobi.) Territories had been delineated on the basis of clan affiliation, and the traditional 50,000 acre grazing unit had been expanded to almost 820,700 acres to accommodate indigenous migratory routes. The Somali themselves were very receptive to following deferred pasture schemes. (Says the range management expert: "At one riverside pasture, annual plants, two feet or higher, were growing for the first time in generations. The pastoralists themselves saw immediate results".) The implementors elaborated on the existence of local grazing committees (of which there is no mention in the evaluation). Twelve to fifteen elders, representing various pastoral groups, regularly convened with the district officer and the range government employee to set grazing schedules. The early implementors asserted that the burden to monitor the range must lay with the people themselves.

In answer to the charge of overly intensive water in the Northeast Province, team members assert that the evaluators had no real understanding of the efficacy of this intervention and never consulted with the implementers. During the drought of 1973-74, in fact, it had specifically been AID's water developments which had directly saved thousands of animals. Herders from afar streamed

into the area to water their stock. The resulting overgrazing had to be regarded as insignificant when compared with the number of rescued animals.

It is difficult to assess what actually happened on the ground in the early stages of the Kenya Project. Almost six years of records cannot be located in AID/W. Furthermore, the extant documents monitor inputs not responses, and they rarely confront the issue of local participation.

Whatever the quality of its early stages, the latter stages of the Northeast Province intervention have been acknowledged to be not simply failing or less than successful--but disastrous.

In 1976, the project underwent minor revisions: an increase of technical personnel, an expansion of the participant program and an increase in the life-of-the-project cost. The following basic assumptions were still incorporated in the amendment document:

The incomes of 42,000 pastoralists will be significantly increased as a result of open range with improved water facilities and better access to markets. The project will also contribute to major non-economic objectives of the GOK; the settlement of semi-nomadic Somalis and their inclusion in the mainstream of national life (Livestock Development Loan Amendment 1. 5/15/76:42).

Plans for the Northeast Province followed those of Phase I: nine additional grazing blocks would be developed, and the specific rotational grazing scheme was slightly modified to include alternatives or contingencies to be applied for different weather conditions.

In 1977, the conjunction with a country-wide Livestock and Meat Development Study, Chemhics International Consulting Division quickly surveyed the range-

land developments. This second evaluation team briefly noted that the rangeland seemed to be deteriorating; that water development had been too intense in a limited area. Indeed, "We must conclude that present de facto policy in the grazing blocks is to provide water without assurance of control of grazing.... To develop water on the assumption that somehow control can be achieved before most of the forage is killed by overgrazing in a nomadic society is a gamble. We believe the project is losing the gamble on the blocks developed" (Chemonics 1977:137, emphasis added).

It was the alarm of the Devres Evaluation of 1979 that forced policy makers to consider that the interventions in the Northeast Province might indeed not be benefitting the beneficiaries. The evaluation team not only described the design and implementation of the project as weak, but attacked most of the basic assumptions.

The report noted that the "livestock development plan seems to have been made without prior analyses in respect to important alternatives for production and marketing of livestock" (Devres 1979:42). While the pastoralists themselves herded camels, sheep, goats, donkeys, as well as cattle, only the latter was considered a suitable target for interventions. [The team asserted that the herders have surpluses of all of the former and have asked that markets be found for them. (Devres 1979:39.)] In addition, given the current range conditions and the omnipresence of disease and recurrent drought, the assumption that Kenya can increase livestock numbers and the aggregate production of meat, especially beef, does not appear valid at this time. Thirdly, should the herder be able to increase his offtake (a hypothetical situation) the cost-price and net

return would not prove attractive to the rural producer. (The GOK's controls would not let prices rise sufficiently to attract the capital need by producers.)

In terms of involving the beneficiaries in the project and identifying their priorities, the team noted that the "range officers spend much of their time trying to convince pastoralists that the range management system learned at school is the only right way--without exerting effort to first ascertain the views of the pastoralist and understand their system, needs etc." (Devres, 1979:49). Furthermore, in analyzing the grazing committee effectiveness it was noted that "hardly any of the GOK officers speak the Somali language, that minutes of these meetings are kept in English and that pastoralist representatives tend to be those living in town...The involvement of the 'target' group in decision making is limited" (Devres 1979:49).

Ironically, it was the 'protest' of the mute range, not of the people or the animals which may have spurred policy makers to begin to deobligate funds. Because the developers had greatly increased water resources without concurrently instituting a properly managed rotational grazing program, destruction in the Northeast rangeland was entering the 'realm of likely'. The Devres team described the following:

The first indicators of desertification are already evident in the North Eastern Province grazing blocks which we observed. Denudification, the effects of overgrazing because of lack of livestock control, can be easily seen from the air. The ecosystem is being disrupted; there is excessive pressure of livestock and wild animals on the environment....

We believe AID inputs should be stopped unless more appropriate strategies, policies and programs are substituted" (Devres 1979: 115).

Perhaps what is currently preventing further range deterioration in the North-east Province is the poor maintenance of pans, reservoirs and boreholes. Many of the water developments are silted up, shipments of submersible pumps are 'lost somewhere in the backrooms of Nairobi', and apparently, children (?) have clogged many of the pipe shafts with rocks and pebbles. While one might see the accomplishments of the "livestock project" in terms of roads laid and boreholes drilled, one recent evaluator asserted that the Kenya range activity rated an 'inexcusable poor' even on the scale of infrastructural interventions: "The roads are already washed out and the water pipelines stopped up."

LESSONS LEARNED

In terms of being able to improve interventions among nomadic pastoralists in semi-arid regions, it is unclear if any lessons have been learned from the Kenya range intervention.

1. Little effort seems to have been made to understand (or monitor) the existing ecological milieu. (One will need to relocate documents.)
2. Little effort seems to have been made to understand the existing cultural milieu.
3. Little effort was made to build on indigenous livestock patterns. (The project focused on cattle to the exclusion of all other stock.)

What interventions were effected were:

1. Inappropriate - e.g. the training of Kikuyu as grazing block managers,
2. Ineffective - e.g. constructing of low-quality roads,

and

3. Destructive - e.g. the provision of intensive water facilities without concurrent controlled grazing schemes.

Perhaps the lessons proffered fall into a broader, extra-rangeland, extra-livestock project category:

1. A livestock project is not always a livestock project. The interventions in Kenya primarily involved laying of general infrastructure (roads, wells). So few activities were tailored to the indigenous animal or pastoral population needs that the designation of this project within the livestock or pastoral sector is misleading.
2. Developers have the potential to destroy as easily as to create. A poorly planned project is not merely a bureaucratic matter of wasting money, effort or time, but may be responsible for initiating long-term environmental degradation.

RECOMMENDATIONS

The development community has been quick to recognize the failure of livestock interventions; it has been less prepared, however, to take measures that may help prevent repeat performances. There are no 'solutions' which are valid at all times for pastoral sector activities (Sandford 1980:3). The range of peoples falling under the rubric 'pastoralists' and the variety of livestock interventions, the differences among host-country institutions and infrastructures, the oscillations of the ecological, political and social environments, and even the choice of objectives, suggest that each project will present its own particular obstacles and that each project demands a tailored set of activities. There are, however, some methods of development which may yield more positive results than other methods, and there are some interventions which are definitely not appro-

priate. In addition, there may be ways to juxtapose varying types of interventions and to pattern implementation activities so as to yield the greatest possible information. Knowledge gained should lead to fewer 'less than successes' and possibly more accomplishments in the pastoral arena.

This section will propose a variety of evaluation, implementation and research procedures which will elucidate the mechanisms and impacts of development activities in the pastoral sector. These programs, when effected as a unit, should lead to an amelioration of livestock projects, and more importantly, to an improvement in the 'quality of life' of beneficiaries.

The recommendations can be outlined as follows:

I. We Must Evaluate Past Interventions in situ.

We must go back--not only in terms of documentative review and oral history investigation, but back to the original field site. What actually happened on the ground? What remains? In what state? Information not given in the administrative reports (i.e. often the cruxes of the matter) must be gathered, processed and re-introduced into the evaluative system. How comprehensive was the planning which preceded implementation? What was the 'style' of implementation? What was the quality of the input? Did the beneficiaries participate? At what stage? (Describe the socio-economic attributes of these local community members.) How effective were the counterpart personnel? What is the host government's long-term commitment to the project? Talk to the local populations. Talk to the regional officers. Approach the government ministers. What were the local priorities? What were the national aims? What were the project objectives?

This sort of back-track investigation is perhaps the least fruitful of possible learning methods for those interested in improving livestock projects. This case study approach excels at "showing that what the governments think they are doing is not what is really happening" (Sandford 1980:23); it is less helpful in illuminating the methods for improving the project or even preventing similar difficulties. Historical investigation does, however, yield information which cannot be gathered in any other manner. It also can give time-depth to our understanding of impacts.

II. Baseline Systems Must Be Built Into Ongoing Projects and Inter-Project Information Channels Should Be Established

It is never too late to start to understand the effects of what is (or is not) happening as a result of development interventions. Current implementation teams should set quantitative benchmarks against which the impact of interventions can be measured (e.g. number of participants in livestockmen committees, quality of the range, participants trained--whatever appropriate to the specific intervention) and should design a set of qualitative inquiries which further elucidate the efficacy of the activities (e.g. have there been changes in the perceptions of the livestock producers? why?). ILCA has set up project monitoring systems in three countries: Ethiopia, Botswana and Kenya; the formats have been designed not only "to improve the project management's capacity to follow the physical and financial progress of development activities but simultaneously to meet the project management's reporting requirements" (ILCA 1978:3). Perhaps AID and other donor agencies could profit from these established guidelines (cf. Hoben 1979:30). While isolated data sets have immediate use within the project schemes, ILCA experts believe that "eventually enough comparable monitoring data

will be generated to make possible broad conclusions about development of the livestock sector in Africa" (ILCA 1978:15). Such monitoring results can be disseminated among those involved in geographically diverse project interventions. Micro-lessons should be transmitted while there is still time to modify activities.

Donor agencies may question whether they have the resources to develop and integrate into the project cycle detailed social, economic, demographic and environmental monitoring systems. If replies point to the negative, perhaps developers should then consider that the pastoral sector is too complex an arena in which to attempt to transfer support systems (cf. Hoben 1979:30). It is unwise to intervene without being able to follow the effects of that intervention.

It is in projects still to be designed that one finds the greatest potential for effecting successful activities. Feedback mechanisms and flexibility can be built into projects from the very beginning. Livestock Sector Programs can be designed to allow for 'lessons to be learned' on a grand scale.

III. Implementors must be willing to see a project as a research as well as implementation experience. Unless informational gaps are filled, donors will continue to provide poor programs.

A. Developers must consider the place of each project within a broader framework of an integrated Livestock Development Program.

The notion that implementation itself can be part of a larger scheme of heuristic experimentation has recently been put forth by Stephen Sandford:

If we are to identify not only what is going wrong with the way governments manage their pastoral interventions but also how they might be improved, we need as wide a range as possible of actual experience

of different approaches under similar conditions so that "actual" can be compared with "actual" rather than, as so often at the moment with "ideal". If that is to happen governments, in designing their pastoral interventions, should deliberately not choose a single model of approach which they believe will be best but try, in the same area and at the same time, several different approaches; but if the results are to yield the information we need the approaches must not be so different from each other that we can not attribute the differences in result to differences in approach. In Kenya different approaches (range blocks, group ranches, company ranches) have been tried but because they have been tried in different ecological zones and are so radically different from each other it is all too easy for us to argue about why there have been differences in results (Sandford 1980:24-25 emphasis added).

The beneficiary is not being compromised by such a comprehensive plan; no one intervention has to be effected in any environment.

B. Developers must conceive designs which help systematically to identify linkages.

If goals are indeed to be accomplished, it must be understood which inputs lead to which outputs and which outputs link to allow objectives to be reached. The current understanding of input/output/objective relationships has been described elsewhere (cf. "Conclusion #II"); because causal hypotheses are seldom formulated, planners can rarely articulate the effects of a specific sequences of events. J. Helland emphasizes this need to formally structure intervention activities:

If we want to learn from the mistakes we are bound to commit, it is essential that development hypotheses be formulated in such a way that it is possible to test whether what we want to do actually results in what we want to achieve. The relationships between actions and consequences must therefore be stated clearly and it is important to keep track of what consequences are produced by these actions, both the intended and perhaps more important, the unintended ones" (Helland 1980:29 emphasis added).

We can, of course, continue to assert that if enough activities are effected something beneficial will happen. However, one must then be prepared to learn no lessons at all. Such an approach also has a "low deterrent value"; that is, the fact that X did not happen under unspecified conditions, does not prevent one from hoping that X will happen in another instance (Helland 1980: 29).

Again, with a coordinated effort, the development community can start to associate specific activities with specific impacts. At the very least, the failure of a project will yield a falsified hypothesis.

C. Systematic micro-level studies must be integrated into every project schema.

This recommendation parallels recommendation #2. One might follow the lead of ILCA in this monitoring endeavor. The program in Kenya has six central components: project implementation monitoring, range monitoring, ranch cattle monitoring, pastoral livestock recording and monitoring human behaviour and various forms of organization (ILCA 1978). Important questions do remain unresolved, e.g. "How intensively or comprehensively should the different components of the monitoring programme be carried out?" or "How is the most cost-effective monitoring methodology determined for any given project" (ILCA 1978:7).

Important initial insights however have been gained about livestock development in Kenya. For example, it was noted that ranches in up-country areas have higher stocking and growth rates and less need for major infra-structural investment than those at the coast (ILCA 1978:8). Loans have been

rescheduled accordingly.

Monitoring activities outlined are part of a two-tiered system: 1) low-cost widespread data collection and 2) intensive localized investigations. The more detailed design of a cost-effective monitoring package depends on country specific variables, the type of project and the purpose of the monitoring exercise. ILCA experts suggest that monitoring in the pastoral area is likely to involve intensive inter-disciplinary study while monitoring of ranch developments may be done primarily by the ranchers themselves. Participants will collect economic and herd data; technicians will provide the ecological data on range trends -- all this on a routine basis.

Thus, the methodology for monitoring interventions is being developed and the feedback information is already modifying on-going activities. A standardized monitoring effort within and among all projects--no matter the donor--would provide the information necessary to design and implement effectively.

Effecting of the above procedures: 1) Investigating past interventions in situ 2) Monitoring present activities systematically and 3) Designing macro and micro research schema to be integrated into the 'global' livestock development system demands an enormous collective effort in terms of creative energy and time. Whether donor agencies are prepared to structure activities to facilitate "finding the solutions" as well as implementing them is quite another question. Certainly, the AID case studies previously reviewed stand as evidence that 'all is not well!'. .

APPENDIX I

The Documentation- General Notes

The present AID information retrieval centers (general filing systems and specific manager files) could be greatly strengthened both in terms of structure and content.

STRUCTURE

The myth or confirmed rumour of AID's lack of an institutional memory is well-known; the extent, however, of this amnesia perhaps deserves elaboration. Several reference facilities do specialize in disseminating different kinds of documents (e.g. one library houses exclusively project papers, one exclusively evaluation reports) yet none seems to have complete sets of their material. Computer storage systems should help relieve these physical inadequacies yet the inputs themselves are far from complete.

It is only in the project or desk officer files that one can hope to obtain any thorough written history collections. Unfortunately, standards for upkeeping this material are not uniform. 'X' desk officer may systematically file all incoming information both chronologically and by subject matter, while 'Y' desk officer may have misplaced (actively or passively) records of the first seven years of the intervention. Such omissions are of more than serious academic consequence. In the case of one intervention examined, any notation that scheduled planning and rangeland monitoring had taken place during the earlier phases of the project was conspicuously absent from the files (along with any other detailed correspondances of an entire Phase I). On two separate occasions, special project evaluation teams asserted that no guidelines had been set to determine range condition or that regional grazing plans had never been articulated. Howeverm those involved in

the project have claimed otherwise and have cited specific monitoring reports (all of which still remain buried--somewhere).

CONTENT

Problems with the content of the evaluation documents result in more serious informational compromises. Many of the documents contain 'half-truths' record inputs without responses, assume faulty linkages or simply fail to register vital types of information.

The case of the half-truth can best be demonstrated by the following example. A project appraisal report mentioned that four participants had been trained as grazing block managers. Although the expected target aimed at six individuals, the actual performance rate of two-thirds was deemed satisfactory, or at least nothing to raise concern. What the document did not indicate was the culture-group of the indigenous participants. The locals trained to monitor the Somali rangeland were Kikuyu agriculturalists. They neither (1) spoke Somali (2) had a real sense of pastoral subsistence strategies nor (3) desired to intermix with the 'beneficiary' population. Six years later, the range management specialists are extremely concerned that large-scale water development has taken place without the necessary complementary grazing rotation system practices.

Many of the documents tend to emphasize inputs, without also registering responses. The number of ranch plans established or grazing blocks developed is listed without an adjacent assessment of the response or appropriateness of the intervention. A ranch may be built (that is, fences delineate grazing areas) but the herders may graze their animals elsewhere as the resources of the project area are insufficient. Another example: a ranch may be built to keep the cattle in, but what the locals really want is to keep the cattle out (of their crops).

The assumption of a faulty linkage runs through many of the project documents. A case in point is the following illustration:*

Conditions which will exist when purpose is achieved

Increased income to residents of areas.

Nomadism considerably reduced in development area.

More and better quality meat available for domestic consumption and export.

Residents of the area have the opportunity to enter the mainstream of Kenya's social, economic and political life.

Evidence to date of progress toward these conditions.

Project activities to date have largely been in the area of detail planning for implementation of the development and management phase of this project. The principal evidence of progress toward these conditions is obtained from the previous "pilot projects" generally termed phase I. Evidence from this source indicates progress in the following terms:

1. Considerably reduced livestock losses during severe drought.
2. Pastoralist willingness to market livestock which would have previously lost during stress periods.
3. Utilisation of loan funds for improved livestock and permanent facilities.
4. Almost 50% increase over previous 3 years in normal livestock marketing from some remote areas.

How any of the 'evidence' relates to achievement of purpose is unclear. During the time of this PAR, pastoralists were willing to market their livestock because the 1973-1974 drought in northeastern Kenya was tearing through their herds. Whether or not they received adequate compensation for their carcasses is never specified. Therefore "increased income to residents" is an unknown. How pastoral willingness to market animals in times of stress is additionally linked to the consistent provision of meat to urban populations is equally puzzling. Finally increase of offtake during an emergency is neither indication of a 'reduction in nomadism' nor evidence that the "residents have the opportunity to enter the mainstream of Kenya's social, economic and political life."

A final observation on the weakness of the documentation relates to what is not considered within the standard monitoring system. Those items not specifically designated within the initial scope of design activities seemed to be ignored in terms of evaluation. For example, have the beneficiaries identified needs which are not being met? Are the counterparts selected gaining sufficient expertise and do they have sufficient rapport with fellow community members to play an effective leadership role in the future? If slots for 'extra-project' concerns could be incorporated into the monitoring and evaluation systems, problem areas may be identified earlier and the unsuccessful activities may be reduced in number.

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