Strengthening Range Management Assistance—
The Administrator

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Highlight
This paper is an outline of factors involved in assisting a developing nation with range resource programs. It includes 10 points, beginning with the need for a range program and concluding with final transfer of responsibility to the host government.

The outline below was derived largely from the Latin American situation, but the points are generally applicable to other newly emerging or developing regions. The purpose of this outline is to review, for the range management technician or agency, the major points of concern of the administrator when a range management program is proposed.

I. Determining the need for a Range Program
A. The Agricultural Resource
1. Topography and main physical features
2. Soils—depth, slope, texture, permeability, drainage, fertility and degree of erosion
3. Climate
4. Vegetation
These factors are well understood by all range managers.
B. Land Use Patterns
1. Percent of land under cultivation
2. Percent of land not suited to intensive cropping, i.e., lands that are potential pasture, range or forest
3. Patterns of occurrence of land types
4. Patterns of land ownership
5. Tribal or communal grazing rights
These factors help the administrator decide on the advisability of initiating a range program from the standpoint of how land is presently handled, how much land and what kinds of land are available for livestock uses, whether or not there are large blocks under individual ownership and whether or not grazing management is possible. Where tribal lands are used by many families, grazing controls are rarely possible.
C. Country Needs
1. Internal Consumption of Agricultural Products
   a. Total population
   b. Rate of population growth and estimates of future growth
   c. Nutritional levels
   d. Economic levels and estimates of probable increases in standard of living
   e. Relative flexibility of internal markets
   These factors are important in determining the pressure on the land for food production, whether or not protein deficiencies are a problem, the level of local demand for livestock products, the possibilities of developing greater internal demand and whether or not the country in question can afford to put large areas into extensive use.
2. Export of Agricultural Products
   a. Foreign exchange earnings and balance of payment problems
   b. World markets
   c. Local export facilities
   d. Costs, quality, and competition
   These factors indicate the need for export earnings, the kinds and quality of products acceptable on world markets, whether or not the country can compete with other exporting nations and whether or not export facilities exist or must be provided.

II. Selling the Idea of a Range Program
A. To the Agency or Agencies (External)
Once satisfactory data are available and a local decision is made to embark upon a Range Program, the administrator must submit the proposal to appropriate programming and planning bodies for substantive approval. At this point the proposal is judged as to its applicability to country needs, financing agency requirements and its degree of fit into the overall country plan.

B. To Host Country Officials
1. National Planning Commission
2. Ministry of Finance
3. Ministry of Agriculture
4. College of Agriculture
5. Private Organizations and Associations—Landowners
6. Industry—slaughterhouses; fertilizer, seed, pesticide, and equipment dealers, etc.
Concurrence in the Range Plan is not required by all of the above agencies but little success is to be expected unless strong support can be developed by most of them. Most lending agencies or donor countries require strong self-help measures.

before external financing can be arranged.

III. Determining the Magnitude of the Program
A. Urgency of the need
B. State of knowledge
C. Technical personnel availability
D. Readiness of host country officials and landowners
E. Host country capability to continue the program after assistance phase-out

These are essential considerations that impinge upon the decision of program magnitude. The administrator knows that host country capability can be increased during the program period but much care must be exercised so that a program is not so large and expensive that it cannot realistically be expected to continue after external financing is exhausted.

IV. Financing the Program
A. U.S. and/or Third Country Donors
1. Grant Funds—AID, UN Special Fund, Private Foundation
2. Loan Funds—AID, IDB, IBRD, etc.

The program may get its initial support from one or more institutions, they may be bilateral or multilateral, they may be grants or loans, they may be short or long term. Range Programs must have long range financing so the appropriate institution must be chosen. These funds are normally used for foreign technicians and any dollar costs, i.e., imported components.

B. Host Country Contributions
1. Cash
2. In Kind

The host country is usually required to contribute about one-half of the total cost. This may consist of local technicians and salaries, travel costs, land, office and laboratory space, storage facilities or other buildings, and any local currency costs such as locally available equipment and supplies.

V. Selection of the Implementing Agency
A. Direct hire
B. Contracts
1. U.S. universities
2. U.S. Governmental agencies
3. Private contractors

AID may implement the program with its own direct-hire staff or contract with the USDA or a land grant university to carry out the program. The Administrator must select the institution with care in order to match the institution’s expertise and capability with the work to be done.

VI. Getting the Program Approved
A. U.S. Approval
1. Program presentation and approval
2. Congressional presentation and Approval

If AID is to be the financing agency then the project must be presented to Congress for approval.

B. Host Country Approval
1. Preparation of agreements—two languages
2. Getting agreements signed.

An agreement must be prepared in both languages stating the terms of the agreement, scope of work, objectives, cost, timing, etc. The signature of the Ministry of Finance or Agriculture is usually required.

VII. Implementation of the Program
A. Selection of Qualified Personnel
1. Foreign advisors
2. Host country counterparts
B. Personnel Briefing and Language Training
1. In the U.S.

2. In the Host Country
C. Preparation of Work Plans
1. Scope of work
2. Task assignments
3. Work schedules and reports
D. Procurement; equipment and supplies
E. Guidance and Direction of Program
1. Inter-agency coordination
2. U.S. commitments
3. Host country commitments

F. Evaluation and Follow-Up

VIII. Training of Host Country Personnel
A. On the Job
B. In the U.S.

Technicians and administrators are usually trained as the work progresses. Once certain technicians have demonstrated high capability, they may be sent to the U.S. for formal training at a U.S. University. These men form the technical base upon which the program continues after external financing has been phased out.

IX. Institution Building
A. Selection and modification of Established Institutions
B. Establishing new Institutions
C. Building of U.S. and Host Country Institutional Relationships

Long lasting results and continued effort is usually not forthcoming if only individual technicians are trained. Some host country institution such as a University department or a Division within the Ministry of Agriculture must be strengthened or established. Then trained people have continued employment in their field. U.S. training, if properly handled, can help to establish long term associations between the host country and U.S. institutions.

X. Transfer of Responsibility
A. Financing and Administration
B. Continue U. S. training program
C. Arrange for Short-Term Consultants
D. Phase out Direct Technical Assistance
E. Phase out Financial Assistance

These items refer to the administrator's efforts in turning over operational and ultimately financial responsibility to the host government. People must be trained to do the work and continued U. S. training is desirable. Consultants can be sent to assist in special phases of the program or to help on special problems even after the long-term technicians have left the program.

**Strengthening Range Management Technical Assistance—The Advisor**

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**Highlight**

The advisor would be more effective if he would forget detail of his discipline and remember principles; if he would learn as much as possible if he would forget detail of his country, for add the cultural limitations. Often the greatest service the foreign advisor can provide is to speak for the technicians of the country, to add the prestige of his position to the recommendations that local technical officers are confident will succeed.

This paper is based on a single year's experience as a foreign advisor to one Middle Eastern country. It was one of the arid countries of the world where the rangelands have been grazed by cattle, buffalo, sheep, goats, donkeys, horses, and mules for thousands of years and where the native woody vegetation has provided fuel for the human population equally as long. The vegetation has reached a very low point on the successional scale. It often seemed that the poor rangelands and the livestock dependent on them had reached a sort of precarious balance—the animals being mere frames of low productivity, the vegetation sparse or lacking, the soil eroded leaving great expanses of bare rock or sandy desert. The livestock were little different from the wild animals from which they originated; they thrived during the wet season, starved during drought.

And while there are other developing countries where conditions for plant growth are less harsh, the range management advisor has a difficult job in most of them. His first move will likely be to tour the country of assignment in company with his "counterpart", the national with whom he is going to work. The advisor should remember that, in most countries to which experts are sent, advisors have been going on familiarization tours for at least the last 15 years and he should not be surprised if he is greeted with something less than wild enthusiasm. As he sees the biological problem the advisor will realize that, in spite of the efforts of numerous experts over the 15 years, there has been little change in traditional patterns of grazing; the "wasteland" philosophy of pasture still persists. And yet he will occasionally see areas that will make him hopeful, for example, the tribal ranges in West Pakistan in the former Baluchistan Province, which were managed under a system called "pargore". Members of the tribe agreed that certain areas of rangeland would be deferred for a specified period of time; good stands of Chrysopogon montanus were evidence of the success of the practice. The advisor will see in airports, cemeteries, and other areas where grazing is prohibited, an abundance of forage that will show him that the country has a potential to be realized.

But today, in many of the regions of Asia that have climates characterized by summer drought, this is the picture: an extension into the range areas of dryland farming, rapid exhaustion of cultivated lands since all topgrowth is harvested and dung is used as fuel; general overgrazing of the native vegetation and the uprooting of woody species for fuel; seasonal starvation of livestock; and, trampling and erosion of soils, loss of water by runoff, increased evaporation, and the extension of deserts.

There are reasons why the rangelands of these countries have not shown more improvement. It is harder to improve management of rangeland than it is to show the usefulness of a fertilizer program on cropland, for example. Results of a range improvement program are slow to appear and success is difficult to demonstrate. In the past, authorities have authorized range improvement schemes and have abandoned them in disgust because results were so slow in coming. Insistence on quick results fails to recognize the slow nature of vegetative change and the paucity of present knowledge; it works against the long-term planning and sustained effort that are necessary in range improvement programs.

It is important, then, for the advisor to gain an appreciation of the reasons behind the present condition of the rangelands. He will see that the problem is basically one of too many animals attempting to graze too limited a forage resource. He should see that the solution is likely to be complicated and that it will involve much more than a suggestion that livestock numbers should be reduced. He will find himself becoming less concerned with the biological problem and more concerned with the political and social problem;