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ETHIOPIA

SOUTHERN GEMU GOFA
AREA REHABILITATION

663-0193

PROJECT REVIEW PAPER
DECEMBER 03, 1976

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT REVIEW PAPER FACESHEET

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9. ESTIMATED FY OF AUTHORIZATION OBLIGATION

A INITIAL FY 78

B FINAL FY 81

10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$) -

A. FUNDING SOURCE	FIRST FY 78			LIFE OF PROJECT		
	H I A	C L C	D TOTAL	E P A	F L C	G TOTAL
ALL APPROPRIATED TOTAL	786	596	1,382	1,552	1,618	3,170
GRANT	786	596	1,382	1,552	1,618	3,170
LOAN						
OTHER						
U.S.						
HOST COUNTRY	0	697	697	-	2,558	2,558
OTHER DONORS	0					
TOTALS	786	1,293	2,079	1,552	4,176	5,728

11. PROPOSED BUDGET AID APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. FIRST FY 78		LIFE OF PROJECT	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	H. GRANT	I. LOAN
(1) FN	213	220		1,382	-	3,170	-
(2)							
(3)							
(4)							
		TOTAL		1,382	=	3,170	-

12. PROJECT PURPOSE (Maximum 400 characters)

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Improve the production and socio-economic well-being of people living in drought prone (marginal) areas in a way that increases their self-reliance.

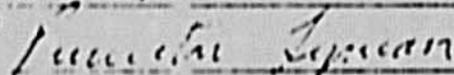
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 1 NO
 2 YES

14. PLANNED RESOURCE REQUIREMENTS (Staff/Funds) For PP: Rural Dev. Specialist 8PM (consultant), Info System Specialist 2 PM (consultant), Hydrologist 2 PM (consultant), Agriculturalist 1 PM (consultant), Animal Health Specialist 1 PM (consultant), Health/Nutrition Specialist 1 PM (consultant)

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1. PRIORITY AND RELEVANCE

Introduction and Summary

At the request of the Relief and Rehabilitation Commission (RRC), AID undertook to investigate the feasibility of an integrated rural development project in Gemu Gofa Province that would reduce the vulnerability to natural disasters such as the drought experienced in the period 1974-75. Since the original request, USAID has developed a new interim strategy for FY 77-78, in which it was determined that our further assistance in the drought-stricken areas, specifically the Southern Strategy study and the Gemu Gofa project, should be geared to assist the government to move from relief activities to longer-range development in these regions. At the same time, it was recognized that these particular regions, such as Gemu Gofa are, because of their geographic remoteness, poor natural resources and the low level of technology, probably the most expensive in terms of development activity relative to return. One obvious justification for such expenditure is to avoid the even greater expenditure for relief activities in case of emergency. For example, in 1974-75 the cost of relief supplies to Gemu Gofa Province amounted to Eth. \$2 million. Nevertheless, in helping the government develop a long-range strategy for such areas, projects must be designed which minimize the demand on central government expenditures and which reflect the competitive pressures upon the government to invest in the more populated and more productive areas on which the country's total production so heavily depends.

The purpose of this project, therefore, is to develop cost-effective approaches for building the capabilities of the people in the Gemu Gofa Province, their peasant associations and local administrative systems to plan and carry out rural development activities that will reduce their vulnerability to natural disasters. To emphasize self-reliance and to support the government's own plans for decentralization, the project will focus its efforts directly on the local administrative bodies and peasants associations; its primary objective, therefore, will be in the development of the capacity at that level to carry out development activities appropriate to the local area. For this reason, funding will be channeled directly to the local administrative body, heavy emphasis will be placed on local adaptive research and appropriate technology, and an information system will be established, geared as much to the needs of the farmers and their associations as to the administrative bodies up the line.

Even with this emphasis on local self-reliance and minimum costs, the project presents several issues which need to be carefully studied throughout the preparation of the project paper and monitored during the project's implementation. First, the very concept of an area development project is somewhat contrary to the present movement of the Ethiopian Government policies. The Ministry of Agriculture and Settlement particularly is

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seeking to avoid a heavy concentration of donor inputs to specific areas (e.g., like the former CADU and ADA projects), but rather to seek a more widespread and evenly distributed series of benefits. AID should be sympathetic to this movement and avoid in Gemu Gofa, or for that matter other area projects such as Didessa, concentrating so much resources that while much is learned, very little is really replicable and applicable to the national development scheme. We are faced with the fact that even for a project designed to be minimum as in Gemu Gofa, the total cost runs to \$6 million for three years. The incremental portion (perhaps 10%) of the Ethiopian contribution is not very great; but the cost of minimum U.S. technical assistance and of local infrastructure are substantial and need to be studied in terms of their relevance beyond Gemu Gofa. On balance, we have concluded that these expenditures in Gemu Gofa will be relevant for national programs as well as in Gemu Gofa because they will allow for testing on the spot in Gemu Gofa aspects of national programs designed for other similarly disadvantaged areas. These include the minimum package program, soil and water conservation efforts, credit programs, training of local leadership, self-help roads, and the avoidance of a relief mentality which is cropping up in many of the drought stricken areas. In other words, rather than make Gemu Gofa a model and a concentrated effort, Gemu Gofa would be a testing and evaluation ground for programs and processes that are being carried on in largely the same fashion in other parts of the country. EPID already looks upon the Gemu Gofa project in this light, i.e., as part of its regular minimum package program, and we hope other ministries will see it in the same way, seeking to learn from the information systems and experiments there lessons for their national programs.

There are several other issues which require further analysis in the project paper. These include:

- A. The respective allocation of funding between the project and the national programs operating in the area; for example, MPP, rural roads, water resources, malaria eradication.
- B. The number and intensity of activities in the project area, e.g., whether all the agriculture, livestock, handicrafts, appropriate technology, social services and other activities can be carried out in the time frame of this project.
- C. The range of TDY inputs, i.e., whether more of these inputs can be obtained from expertise existing in-country, particularly within the EPMG.
- D. Financing of local infrastructure costs. The concept of the development fund proposed in Gemu Gofa is in its present form only a device for the project but does not yet provide a means for developing systems of either decentralized government financing or great mobilization of local resources.

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- E. Whether the appropriate technology portion of this project might be funded from AFR's regional technology project.
- F. What requirements may exist after the three project period? The evaluation system will need to be structured to identify any such requirements no later than the end of the second year, and to point to new or modified project goals and purposes that would justify such assistance.

The Need

Southern Gemu Gofa Province is an arid land of mountains and river valleys, part of the vast area of southern Ethiopia that is prone to periodic droughts and other natural disasters. For the most part, these areas tend to be marginal in terms of economic development potential, and are cut off from the mainstream of socio-economic and governmental activities by insufficient roads and other forms of communication.

Upwards of 300,000 people in southern Gemu Gofa Province suffered shortages of food and loss of livestock during the recent drought. The cost of relief supplies to Gemu Gofa Province during 1974-75 amounted to Eth. \$2,000,000. While the immediate problems of the drought appear to have passed with the rainy season of 1975, it is still costing the government large sums of money to provide a sufficient food supply to the affected areas.

Since the drought, the RRC and the provincial government have been working towards the formulation of a comprehensive recovery program for the stricken areas of southern Gemu Gofa. While the government has taken significant steps to intensify its presence and development activities in these areas, recovery operations have been hampered by several factors: the scarcity of managerial and technical skills for planning and implementing development activities; almost non-existent communications and transportation infrastructure; the unavailability of technologies for improving food crop and livestock production in the various ecological zones of this marginal area; the complexity of the socio-cultural system that consists of many ethnic groups with different languages, practices and patterns of cooperation and conflict; and a myriad of human and physical environmental problems. Moreover, the constraints to (and potentials for) development vary significantly from one locality to the next, requiring the tailoring of development activities to the specific conditions of each locality. If an effective rehabilitation program is to be developed, there is a need for technical and financial assistance to be channeled in ways that allow the people through their peasant associations and local government agencies to identify, develop and evaluate alternatives for improving the socio-economic well-being in the diverse localities of this drought-prone area.

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EPMG Objectives

The RRC, in collaboration with the provincial administration, initiated the planning for this rehabilitation project, and in addition, has provided support for several, though uncoordinated, recovery activities that are underway in southern Gemu Gofa. In launching these efforts, one main EPMG concern is to reduce the dependence of the people on relief assistance (and the financial burden on the government), developing a capability to produce adequate food supplies and, eventually, to resist the effects of future natural disasters.

Although there is strong evidence of the EPMG's commitment to the rehabilitation of southern Gemu Gofa Province, the broader question is what priority the development of marginal and previously neglected areas will receive in the allocation of scarce personnel and financial resources (versus investment of these resources in more productive areas). The provincial administrator and other local level officials were emphatic about the need for a more equitable distribution of resources, citing their plans and actions to intensify government interaction with these previously neglected areas. At the national level, representatives of the Planning Commission, Ministries of Interior and Agriculture and other technical ministries reinforced this view - a view supported by EPMG policy decisions and program efforts.

The objectives of "improved equity" and "self-reliance" clearly provide the basis for the government's development decision-making. To achieve these objectives, the government is delegating increased responsibilities to the recently-formed peasant associations to be carried out with the assistance of a strengthened local administrative system. As yet, it is unclear whether the capacities of local institutions can be developed to handle these increased responsibilities national and provincial officials see this project as an experiment to discover the potentials and problems in the process of increasing local self-reliance.

Rationale for USAID Assistance

The EPMG's selection of the project area where the poorest segments of the rural population live and its development program objectives are consistent with the new directions of AID aimed at improving the impact of development assistance for the rural poor. The high degree of correspondence between the EPMG's development policies and action, and AID's new emphasis are detailed in USAID/Ethiopia's statement "Assistance Strategy for Ethiopia FY 77-78" (October 15, 1976). This project provides an opportunity for a collaborative effort to seek solutions for alleviating rural poverty in marginal areas.

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Moreover, this project is a natural outgrowth of past and current USAID assistance in the southern part of Ethiopia. USAID has been able to assist the RRC in a variety of drought programs and, more recently, rehabilitation efforts. USAID's current involvement consists of six projects funded from the original U. S. \$8,000,000 rehabilitation grant programmed in FY1975: Rural Roads, Small Farmer Crop Production Project, Accelerated Crop Production, VolAgency Wells, Sidamo Water Development, and Small Farmer Development. From the U.S. \$5,000,000 additional received for rehabilitation in FY 1976, two more projects have been funded - the three-year Early Warning System to alert the EPMG to future, potentially serious predisaster situations and the six-year Genu Gofa Rural Roads Project. The two drought roads projects will improve access to the project area.

Finally, the Southern Gemu Gofa Rehabilitation Project represents an important step in implementing the EPMG's and USAID's interest in moving from relief and rehabilitation to longer-term development programming. Another step in this direction is the RRC's request for USAID to assist in the planning of a strategy for the development of southern Ethiopia - a project that will both support and draw on the knowledge acquired from the experimentation in southern Gemu Gofa.

Summary Description of the Project Area

Location

The Gemu Gofa region lies in the southwestern corner of Ethiopia (see map Annex II) extending from the northern end of Lake Abaya, southwestwards to Lakes Rudolf and Chew Bahir (Stephanie). In the south it borders on Kenya and in the southwest with the Sudan. The proposed project will deal with the part of the province that has been most affected by the recent drought. This includes the Konso Highlands, the Hamar Highlands, and the Sagan, Woito, and Omo River valleys. Approximately 15,700 km² are included in this area. It is located five degrees north latitude and thirty-seven degrees west longitude.

Political Administrative System

The province is administratively divided into four awrajas (districts), with the awrajas being further divided into woredas (sub-districts). The proposed project area will include, in Gardula Awraja, the Konso Woreda with its administrative center at Bakaule, and the Hamar-Bacoo Awraja (five woredas) with its administrative center at Jinka. The provincial capital is at Arba Minch, near the northeast extremity of the province.

There is a Provincial Administrator as well as representatives of all of the line ministries in Arba Minch. All of the awrajas and woredas are serviced by local administrators and police stations most line ministries are represented at the awraja level and several have been assigned recently to the woredas.

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Demographic Characteristics

Population Characteristics: Rough population figures for the project area vary greatly, depending on the source and are given on the basis of the distinct ethnic groups in the area and not for political subdivisions. These are as follows: (population figures from the 1966 census have been discounted since they vary wildly from all other sources).

Konso Highlands

Konso 80,000

Hamar Highlands - Lowlands Complex

Hamar	30,000
Arbore	2,500
Tsimai	6,000
Bauna	40,000

Omo River Lowlands

Galeb	20,000
Bume	7,000
Mursi-Bodi	15,000
Karo	1,500

If these figures are acceptable as broad estimates, and if the Bako-Gaza peoples surrounding Jinka, and the Mali-Borana (nomadic herders that travel through the area) are also included, then the project will have an impact on the target population of at least 400,000 people. Given the fact that some of these estimates are based on cattle-tax records, which are standardly subject to under-reporting, it is likely that the target population is larger.

Migration Patterns: Except for the Mali-Borana nomads, the rest of the area's populations are fairly sedentary, with only segments of each ethnic group moving relatively short distances within their tribal boundaries. This movement has essentially two causes: the annual search for grass and water for livestock, and a more permanent drift as a result of the drought, from the highlands to the lowlands.

Ecological Conditions

The general rainfall pattern in the project area is bi-modal with the March to May season somewhat more reliable than that of September to November. Rainfall data are quite limited and unreliable, but it is thought that the

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region is subject to annual rainfall variations which roughly follow an eleven-year cycle within a eighty-year cycle. It would appear that the recent drought years have coincided with the low rainfall part of both cycles. It is the impression that as one travels westward and southward through the project area that the rainfall diminishes to some degree. It must also be noted that even in the case of increased rainfall in the future, the effects of the drought have been devastating for much of the farmland and pasture in the area, and that normal rainfall alone cannot be expected to bring socio-economic conditions back to what it was before the drought. Moreover, it must be borne in mind that the existing socio-economic conditions before the drought were far below an acceptable standard, and that merely bringing things back to "normal" would not realistically constitute an improvement in the area.

In terms of ecological zones a distinction must be made between the highlands and the lowlands. During the rainy seasons the highlands receive approximately twice the rainfall of the lowlands and temperatures are somewhat cooler. Nevertheless, during the dry seasons there is an almost complete lack of water in the highlands, with only the larger rivers providing water to the lowlands (the Sagan, the Woito, and the Omo). Approximate temperature ranges for the area are 98F day - 70F night in the lowlands, and 90F day - 65F night in the highlands.

Crop and Livestock Production

Aside from the extensive and highly impressive terracing performed by the Konso people, the crop and livestock production methods used in the project area can only be described as basic. Indeed, the entire production process is geared only towards survival and not as yet towards a surplus.

Given the extremely harsh and rugged ecological conditions of the area, a production process has evolved that will almost always assure some production and thereby allow the population to survive. Specific examples of this are the planting of up to 25 different sorghum varieties in the same field, as well as up to 40 seeds in one hole. Given any or all types of natural disasters that might occur in the region, a few varieties and a few plants will always come to harvest. Another example of this is the intercropping of various types of crops with different maturation dates to allow for different amounts of rainfall as well as the varied seasonality of the rainfall.

The raising of livestock is also geared along these same lines. Herds are composed of cattle, sheep and goats, each able to browse and live off a different range of flora in the area. Livestock are also considered by the people to be their "insurance" or "savings account" to be drawn upon during poor crop years. Herds are drawn upon in those years and built up in good years.

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Agricultural implements are of the crudest and most basic type yet when viewed in terms of survival needs, they are adequate. Many farmers use only a wooden digging stick.

Other Economic Activities

To any meaningful extent, only the Konso enter into economic activities other than agricultural and livestock production. Wage labor on state farms, beekeeping for honey production, and the weaving of cotton cloth are the three most significant of these. In both the Hamar and Konso Highlands, there are blacksmiths who make rudimentary implements. Some sub-groups make pottery and baskets. Some of the Geleb have begun fishing, using nets imported from Kenya. For most groups, hunting and gathering of berries, nuts and leaves, as well as making local "drinks," are important activities.

Economic Infrastructure

The economic infrastructure in the project area is poorly developed and extremely limited - perhaps one of the most neglected parts of the world. Road communication during the dry season is difficult at best and passage is impossible during the rainy season. USAID is assisting two rural roads projects: one that will connect Arba Minch/Konso/Arbore and Omo Rate and the other will link this road to Jinka. The roads will take six years to complete and already by clearing various parts of the road travel time to Konso and other areas has been reduced considerably.

Traditionally, the various tribal groups have dug irrigation canals and catchment ponds. Currently, some work is continuing on the development of water resources by voluntary and government agencies, including the construction of a dam for diverting the Wolto River which, with the completion of the canal, has opened lowland fields for the Arbore and Hamar.

A few airstrips exist in the area, consisting of leveled areas of land - Kelem, Kibish and Arbore. The American Mission in Kelem operates a ferry for crossing the Omo River otherwise, river transport is almost nonexistent.

Telecommunications in the area consist of several radio networks belonging to the police, the Relief and Rehabilitation Commission, Water Resources and EPID. However, these are not linked in any way and communication is only to the next higher office of each organization.

Trade and Commerce

Trade and commerce in the project area, with the exception of Konso (which is a matter of degree and not form) exists for the most part on the basis of barter and, except for a few items from outside of the area (rifles, bullets, metal implements and beads) is not entered into as an economic venture but out of need for survival.

In Konso there are several towns that hold scheduled market days where grain, livestock, cloth, and small trade goods are bartered and sold, but in the rest of the project area traveling traders and the few government officials in the area provide the only trading system. All other trade is within and between tribes on a survival need basis. If, for example, the Hamar have a good sorghum harvest and the Arbore a poor one, sorghum will be traded for goats. The next year the reverse might be true.

Social Services

The social services of the area are also in short supply. The Norwegian Mission maintains a clinic in Konso and the Ministry of Health and the American Mission maintain clinics in Omo Rati. None of these, however, are able to offer nutritional or preventive health care information or extension services. Foster Parents Program is planning to establish two mobile clinics one in the outlying areas of Konso and one in Arbore. They also support medical services in the Gato settlement area in Konso.

The Ministry of Education has schools in Konso (bakaule), Arbore, and Omo Rati. However, they often lack teachers and supplies. Accommodations for teachers is also a prevalent problem which leads to teacher frustration and unwillingness to go into the areas. Both the Norwegian Mission in Konso and the American Mission in Omo Rati (Kelem) maintain schools.

Socio-cultural System

Distinct Groups

1. The Konso historically are of mixed stock, but with a distinct ethnic identity, a marked tendency towards isolation, and a very strong attachment to their own region in the Konso Highlands. There is no centralized leadership. The political unit is the Konso town, an elaborate stonewalled construction, more or less unique in tribal Africa. Konso housing is equally elaborate, otherwise the material culture is as simple as the social and value systems are complex. The basic characteristics of the Konso are that they are good farmers and weavers with a puritanical devotion to hard physical work.

2. The Hamar Highland-Lowland Complex. The socio-cultural groups of this area essentially four: the Hamar, Arbore, Tsemal, and the Banna. All are basically farmers but also with a strong dedication to their herds. They are generally ranked among the culturally backward archaic tribes, characterized by isolation, little or no trade or cash economy, intertribal tension, and a generally precarious subsistence.

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3. The Omo River Lowlands. This area is inhabited by the Galeb, Mursi-Bodi, Bume and Karo groups. All are archaic splinter tribes about which very little is known. The Bume are essentially pastoralists engaging very little in cropping. The Karo represent the opposite pole, keeping no animals and basing their existence around cultivation along the Omo River. The Galeb and the Mursi-Bodi are transhumant pastoralists who have in recent times been forced to take up subsistence farming along the Omo. There are indications that they regard agriculture as a means of procuring enough livestock to go back to their traditional life.

Inter-relationships

Among the several ethnic groups of the project area there exist different systems of inter-relationships. While some groups have economic and trade alliances that have existed for many years resulting in relative peace between them, others are engaged in inter-tribal conflicts which at times threaten their productive capacity. The sources of this conflict usually involve the raiding of cattle and disputes over grazing land however, at other times cultural practices such as trophy hunting (male genitalia) leads to conflict. An examination of the existing specific alliances and conflicts is in the social soundness analysis.

2. PROJECT DESCRIPTION

Project Goal and Purpose

The goal of this project and other EPMG and USAID assisted rehabilitation efforts is to improve the production and socio-economic well-being of people living in drought-prone areas. The project purpose is to develop effective and cost-effective approaches for building the capabilities of the people, their peasant associations and local administrative system to plan and carry out rural development activities that reduce vulnerability to natural disasters in the drought-affected areas of southern Gemu Gofa Province.

The project is largely a three-year experimental effort directed at finding ways to promote developmental changes that are sustainable with a minimum of government support. To accomplish this, the project is designed to expand the technical and organizational capabilities of local institutions - the peasant associations and government agencies - so that they can plan and implement activities that are appropriate to the needs and potentials of their localities. Moreover, the project will seek to develop, with the peasant associations, alternatives for increasing production and incomes in this arid area.

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Basic Considerations for Project Development and Implementation

Four main factors provide the basis for developing and implementing this project.

1. Technologies for increasing production and incomes in the project area are not yet available, though some initial experimentation is taking place. Developing technologies appropriate for the area will be a difficult process because of the differences in ecological zones and local farming systems and because of the rudimentary nature of current practices. (See Annex A.)
2. While the project area can be characterized by the diversity of its ethnic groups and production systems, there are also complex systems of social and economic inter-relationships (see Social Soundness Analysis). Development assistance has to be channeled in ways that do not aggravate tribal tensions nor put certain groups in a disadvantageous position.
3. Assistance during the drought emergency created a strong dependency relationship on the government: in particular high expectations about future government support. Methods for overcoming this problem are not well developed.
4. The EPMG is decentralizing its political administrative system, giving increased responsibilities to peasant associations and local government agencies. Within the project area, the human resources are available for assuming these responsibilities; there are motivated local leaders and government officials in the area, though they lack the experience, training, technical support and resources necessary for planning and carrying out development activities.

These factors argue for a project approach that is based on the involvement of the local population in project decision-making and on increasing as rapidly as possible their resource commitment to development activities. From the outset, the project will work through local government agencies and with the peasant associations to identify and develop technologies for improving production, as well as to overcome other basic constraints to increased production.

The project evolve gradually, acquiring the knowledge necessary for bringing about development change in the different localities through communication and experimentation with the peasant associations. Initial priority will be given to those areas that have been most affected by the drought (which will become accessible with the USAID-supported rural roads

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projects). The project has also been structured (through the location of the EPID centers and other activities) to reach most major groups in the area, though the effects of project activities on inter-tribal relationships will still have to be monitored closely. While considerable flexibility has been built into the project to respond to local initiatives, substantive priority will be given to developing methods for increasing the production of food supplies.

Project Components/Outputs

The project has five main components which are listed and then described in detail below.

- A. Strengthening the planning, management and evaluation capacities of peasant associations and local government institutions.
- B. Developing alternatives for improving food crop and livestock production.
- C. Identifying, testing and introducing appropriate technologies for micro-industrial development.
- D. Developing the minimum economic infrastructure necessary for promoting increased production.
- E. Experimenting with methods for improving the quality of those social services that increase the well-being and productive capacity of the local population.

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- A. Strengthening the planning, implementation and evaluation capacities of peasant associations and local government institutions.

Situation

The EPMG has moved to decentralize its administration and development activities through the delegation of authority to peasant associations and to lower level and better trained administrators and development workers. Even though the responsibilities and relationships within the local administrative system have not been fully developed, the basic structure is clear. Peasant associations in the project area are now being formed with the assistance of Ministry of Agriculture and Settlement personnel (or were organized earlier by students during the Zametcha campaign) to administer a specific geographic area. Members (individuals with less than 10 hectares of land) are registered by Ministry personnel, with basic data collected on each family (e.g. family size, farm size, livestock holdings and other farm assets). Each association elects executive and judicial committees who serve without pay. The peasant associations have been granted authority in a wide range of areas--development, administration, and security; however, government officials recognize that considerable training and time will be required to build the capabilities of these groups so that they can perform their responsibilities.

The peasant associations elect representatives to the woreda and awraja Revolutionary Administration and Development Committees which are chaired by an administrator appointed by the Ministry of Interior and consist of the heads of the technical Ministry offices at each level. At the provincial level, there is Provincial Revolutionary Administration and Development Committee that is chaired by the Provincial Administrator but does not include peasant association representatives.

The process of reforming the local administrative system is at different stages in the project area. Konso Woreda has been completely organized into 34 peasant associations; these associations have elected representatives to the woreda and awraja Revolutionary Administration and Development Committees. In the Geleb and Hamer-Bako Awraja (five woreda), progress has been slower and as yet the system of peasant associations has not been developed; the Awraja administrator estimates that about six months will be required before the process is completed. (Even if the development of peasant associations is stalled, there exists a strong local leadership structure, usually elected, through which the project can work.)

The government has intensified its presence in the area, with administrators having been assigned to all six woredas. For the most part, these men are young, educated though somewhat inexperienced. The technical ministry staffs at the woreda, awraja and provincial levels are being expanded and

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upgraded, with special efforts being made to recruit individuals who speak the local languages. A new provincial administrator has been appointed; he was formerly a well-respected awraja administrator.

Discussions with peasant association leaders, the chairman and members of the Revolutionary Administration and Development Committee, and senior officials of the Ministry of Interior, the Planning Commission and Institute of Management and Training emphasized the importance (to the successful development of the project) of developing the capabilities of the peasant associations and local administrative system. More specifically, several problems were identified:

Most development activities in the province are carried out in an ad-hoc fashion with a minimum of planning and coordination.

The provincial administrations do not have the ability to respond to local needs and peasant association initiatives because resources are programmed nationally by the various technical ministries; this problem is compounded by serious delays in getting resources from the technical ministries to the provincial level.

Increasing responsibilities are being delegated to the peasant associations without the development of the technical and organizational skills of their leaders.

Local administrative agencies are limited in their ability to work effectively with the peasant associations because of their limited experience and training in the planning and carrying out development activities, as well as major logistical problems in reaching the rural population.

Because of the changes that are taking place in the local political/administrative system, the linkages are weak between the farmers and their peasant associations, between local government agencies and the peasant associations, and between technical ministries and their field staffs.

The data required for planning, monitoring and evaluating development activities are not available, nor have mechanisms been developed for systematically collecting and analyzing these data.

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Overcoming these problems requires that a major component of this project be the strengthening of local planning, management and evaluation capabilities.

Project Approach

An approach has been developed with local and national EPMG officials that allows the project to support and test the process of decentralization currently underway, developing methodologies that can be replicated in others parts of the country. The Project Agreement will be signed with the Relief and Rehabilitation Committee, with the provincial Revolutionary Administration and Development Committee designated as the implementing agency. This committee, chaired by the Provincial Administrator, will be responsible for policy and programming decisions. The Provincial Administrator will establish a Provincial Development Office that will be responsible for the planning, management and evaluation of project activities. Project funding will be channelled through the national banking system to a special account for the provincial government. USAID funds will be released on the basis of semi-annual plans developed by the Revolutionary Administration and Development Committee and the Provincial Development Office, with the major inputs to these plans coming from the peasant associations and local government agencies. The project, in cooperation with national institutions (see below), will identify and provide the necessary training for local government officials and peasant association leaders. An information system will be developed that takes account of the decision making requirements at each level from the farmer to the national technical ministries.

Specific project outputs and inputs are elaborated below:

Establishing the Provincial Development Office. The Provincial Administrator, with the assistance of the Ministry of Interior, is in the process of recruiting a senior officer to establish a Provincial Development Office. He will have a deputy directly responsible for the management of this project, with the assistance of three lower level officers who are from the project area and/or speak one or two of the local languages. The EPMG will pay the salaries of this staff, and the project will provide the necessary logistical and operational equipment and support (e.g. drivers, secretaries, vehicle maintenance)..

The Provincial Development Office, under the direction of the Provincial Revolutionary Administration and Development Committee, will be responsible for the planning, management and evaluation of project activities. More specifically, this office will be responsible for:

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- a. preparing the general plan for the development of the project area;
- b. developing the guidelines and procedures for the peasant associations and woreda and awraja Revolutionary Administration and Development Committees to procure project assistance for local development activities;
- c. insuring that appropriate social, economic and technical assessments are conducted on proposed local activities;
- d. preparing the plans for submission to the Revolutionary Administration and Development Committee for its approval and submission to USAID;
- e. coordinating the project, government and other foreign donor (including private) inputs into the project area; and
- f. establishing and managing the information system for monitoring and evaluating project activities.

To assist this office carry out these functions, the project will provide long-term technical assistance by a rural development specialist with expertise in planning, management and evaluation. This advisor will have training and experience in planning, administration, micro-economics, and quantitative analytical skills, as well as previous experience in carrying out areas development projects. Over a three year period, the advisor will provide on-the-job training to the staff of the provincial development office so that it can function without further assistance; he will also assist in the training of lower-level administrators and development workers.

Assistance to the Provincial Development Office will begin with the preparation of the PP (Project Paper) and continue through the formal initiation of the project. (See Section 9, Project Development Schedule).

Provision of Support to Local Administrative Units. Interaction between the peasant associations and local administrative units is severely hampered by communications and transport problems. The USAID-assisted rural roads projects will help open communications routes as will the construction of feeder roads under this project. Under this component, the project will provide limited transport support to local administrative units (four-wheel drive vehicles, 1 four-ton truck for the provincial administration, 1 boat and motor for the Omo Rate Administration). To the extent necessary, the project will supplement provincial vehicle maintenance facility with short-term assistance in setting up its operations. The project will also provide the provincial, awraja and woreda administrative offices with basic office equipment and supplies. To further facilitate interaction with the peasant

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associations the project will provide three low-cost facilities in the remote parts of the project area for temporary lodging for visiting officials, technical ministry personnel, trainers, and other project related visitors.

Training of Local Government Officials and Peasant Association Leaders

Training for local government officials and peasant association leaders is the responsibility of the Department of Local Government, Ministry of Interior, and of the Institute for Management and Training (IMT). Recently, the heads of these two agencies conducted a countrywide survey to determine the training requirements at each level. USAID is currently in the progress of developing a project that will support the Institute of Management and Training's efforts to upgrade local administrative, planning and management skills.

To a large extent, the Department of Local Government and IMT perceive this project as an experiment through which the ongoing training requirements for local government officials and peasant association leaders can be identified and incorporated into their training programs. Moreover, they will have the major training responsibility under this component. In addition to in-country training for local government personnel, the project will provide funds for third country and Ethiopian study tours (about two to three weeks in duration) for woreda, awraja and provincial administrators. Of particular value would be visits to Tanzania where the process of decentralization has had much more time to develop than in Ethiopia: the most relevant aspects of the Tanzanian experience would be the structure and organization of regional and district development efforts, the process of developing the financial, technical, and organizational capabilities of ujaama villages, and the government's indicator system for measuring progress in various sectors.

Developing the technical and organizational skills of the peasant association leaders will be a critical part of each of the five project components. The project will establish two training centers (at Delbena and Omo Rate; see description of agricultural component), which will be the focal points for the policy, management and technical training provided to peasant association leaders on a short-term basis. The local administration Department of Local Government, and IMT will concentrate on management training. UNDP is planning to establish a national Land Reform and Research Institute in the spring of 1977 which will be resource for helping peasant associations handle the legal and policy questions that arise. The various forms of technical training will be described under the other project components.

Establishing an Ongoing Information System

The project is designed to find low-cost and effective approaches for achieving developmental change in drought-prone (marginal) areas. To determine

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which are the most efficacious approaches, there will be a need to monitor and evaluate closely the experimentation that takes place under the project; this need is especially acute since the project will be operating in an area with highly complex socio-economic systems.

To project, through the use of short-term consultants, will assist the Provincial Development Office to establish an information system that performs the following functions:

1. To monitor project implementation in terms of:
 - a. The financial, equipment, commodity, training and technical assistance inputs and allocations to the various technical ministry offices and to the various localities in the project area;
 - b. The direct action results or outputs such as wells dug, springs developed, results of agronomic tests, agricultural production results, peasant association leaders trained, etc. that are necessary for the achievement of project objectives;
 - c. The key assumptions or other possible conditions which may imply dangers to successful project implementation creating a need for changes in implementation approaches;
 - d. Initial effects on inter-relationships within the project area--between the various ethnic groups, the peasant associations and local government officials as well as project activities, and national technical ministries and field personnel, with special concentration on their implications for increasing food production in the area.
2. To analyze in collaboration with the peasant associations the data from the monitoring process to identify and diagnose actual or potential problems, as well as to formulate appropriate modifications in project design.
3. To periodically evaluate the agricultural development of the area in particular, the acceptability of technological innovations to farmers.

The process of developing the information system will begin in the pre-project stage. The first step will be for the Provincial Development Office, with the assistance of a short-term information system expert, to identify the data requirements for decision making at each level. Building the information system in this way insures that there is sufficient motivation

to collect accurate data. The information requirements at each level will vary considerably. The farmer will be concerned about whether he should adopt a new planting practice or improved seeds; the peasant associations will have to make decisions regarding land and water use as well as in many other areas of concern; local administrators will need to know how to allocate scarce resources most effectively; and national ministries will have to assess the efficacy of various activities as well as that of the decentralized approach to development. The PRP team ascertained that there is both a recognition of the need for better data at all levels and a capability to collect basic information--even on the parts of the peasant associations and tribal groups in areas where peasant associations have not been formed as yet. Initially, however, the system will have to be quite simple in light of the personnel constraints at the local level.

In addition to determining critical information requirements, the procedures for collecting and analyzing data will be developed, as well as the system of information flow. One important element will be to structure the information system in a way that strengthens important linkages within the administrative system--between farmers and their peasant associations, peasant associations and local government officials, national ministries and their field offices.

During the pre-project stage, a prototype system will be developed and tested in the Konso Woreda where there are well-established peasant associations. As the project evolves, the system will be refined and extended. Also, to complement the formal system of data collection and analysis, the project will provide a fund for research on special problems. The Institute for Development Research is planning to conduct a study in the area on the effects on farmer income by the land reform legislation. This Institute is a resource which can be used for special studies and assist in the development of the project supported provincial information system.

Evaluating and Modifying the Project Design

Because of the experimental nature of this project and its implications for broad EPMG policy decision making, there will be the need for periodic evaluations of the project. The project will fund three internal evaluations that will take the form of seminars, with the participation of local and national representatives of the institutions involved in the project. Also, the project will fund two in-depth evaluations, performed by a joint EPMG and USAID team. Both of these exercises will allow opportunities for modifying the project's design.

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B. *Developing alternatives for improving food crop and livestock production.*

Situation

Within the project areas, there are several distinct eco-systems. As a result and as described in Annex A, the local people have developed various forms of subsistence relying on specific mixes and patterns of crop and livestock production. However, in every region of the project area, rainfall and/or access to water is the primary determinant of production patterns.

In the Donso highlands where the land was good for crops (primarily sorghum and cotton) but too steep for cattle, the people expended enormous time and effort in the construction of terraces that would both catch the meager rainfall and prevent erosion during the few hard rains that do fall. Cattle become less important to them as their fields yielded good harvests. In recent years, however, the Konso highlands have begun to lose their fertility, and the Konso people are looking towards the previously unfarmed flood-plains of the Gato, Sagan and Delbena rivers. Certain environmental constraints impede their movement, including malaria fear of attack from raiding tribes, as well as the possibility of disease for the few cattle that they do keep.

The Hamar are a group that is split between two ecologies--the highlands and lowlands. Nevertheless they have worked out a delicate but functional balance between the two systems. In the highlands (which are not as steep nor rocky as the Konso highlands), the crops are rainfed and the herds are grazed on upland pastures. In the lowlands where much less rain falls, crops are planted along the river as it begins to recede at the onset of the dry season. Their cattle are grazed on the arid plain when there is sufficient rain but brought close to the river during the dry season. Since the cropping seasons and grazing patterns of the highlands and lowlands complement each other, the chances of survival are increased for the tribe.

In contrast to the Hamar, the Taimai and Arbore (who also live in Hamar Woreda) depend primarily on the Woito River for their subsistence. The Taimai are known for their traditional construction of irrigation ditches: they farm along the Woito River and graze their cattle on the plains and in the foothills of the Hamar Highlands. Recently, with the diversion of the Woito River and with the construction of irrigation canals, the Arbore have been able to increase their sorghum and maize yields significantly.

Along the Omo River, the Geleb and Karo are dependent on the river for subsistence. They plant their crops along the banks as the river is receding, and in a good year can harvest two crops--primarily sorghum and some beans. Some lengthy irrigation canals (30 to 40 kilometers) have also

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been dug by their "forefathers" which opened up cropping and grazing lands.

Overall, the area's development potential will depend on the exploitation of its water resources. In the lowland river valleys, there are opportunities for expanding irrigated crop cultivation as well as pasture development. With the construction of water catchment ponds, spring development, and range management, the Hamar highlands can also be greatly aided. Also, as the Donso continue to move into the lowlands and pressure is taken off the highlands, these areas will gradually recoup their fertility.

As secure and stable sources are developed, there exists in the area a potential for improving agricultural productivity both in terms of gross amounts and nutritional value. While no one in the project area is starving at the present time, the diet of the people is barely minimal with only sorghum as a staple food. Many vegetables, pulses and possibly fruit trees can be introduced into the area. Also, there are opportunities to expand the production of honey through use of improved techniques as well as the production of fish in catchment ponds built for irrigation. Through pasture and range development as well as better animal health care, livestock production can be improved.

While the potential for increasing food production exists in the project area, it should be re-emphasized that the project will be assisting farmers who have developed their own systems for subsistence with built-in insurance mechanisms for survival. Moreover, while their tools are crude, they are using technologies that they perceive to have the least risk for their family's survival. Any changes that are introduced will not only have to be proven successful within their own farming systems but also will have to involve a minimum amount of risk.

Several agencies are working in the project area to help find technologies for increasing food production. Until recently, the Ministry of Agriculture (in particular EPID) has considered these areas as marginal and low-priority, especially in light of scarce government resources and the vast needs of the country. EPID now has programs in Konso and Omo Rate developing cooperatives and preparing demonstration plots. EPID is also in the process of building its provincial and awraja level staff. At present there are nine EPID field workers in the provincial capital; a Field Agent, and Assistant Field Agent, a marketing Worker, a Cooperative Worker, A Home Economics Worker, A Rural Community Worker, A Planting Worker, an Irrigation Worker, and a Soil and Water Conservation Worker. The livestock production support staff is responsible to another Division within the Ministry of Agriculture but may be integrated into EPID. In addition to its provincial staff, EPID is currently upgrading and expanding its staffs at the awraja and woreda levels.

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In addition to the Ethiopian government's work in the area, there are several voluntary agencies that represent resources with which the project can work. The Norwegian Lutheran Mission in Konso is currently performing field trials and demonstration plots and in the future plans to provide an irrigation expert to aid in the construction of catchment dams. The German Voluntary Service has one volunteer working on the improvement of the irrigation system for the Abore and Hamar lowlands and an agriculturalist is expected in the near future. The American Presbyterian Mission near Kalem has been working for many years on the introduction of several types of vegetables, fruits and grasses, as well as on the testing of windmill irrigation systems; the Mission has recruited an American agronomist who will arrive within the next few months. Foster Parents Plan Organization has also recruited agriculturalists for work mainly in the Konso area.

To a large extent, the work being carried out by the foreign voluntary groups and government development workers has been ad-hoc experimentation. This experimentation provides a starting point for identifying appropriate technologies for increasing food production, though much work is needed before technologies acceptable to farmers are developed. During preparation of the project paper the relationships between voluntary agency development activities and project activities will be carefully studied with a view towards their coordination and integration.

Project Approach

As has been emphasized, the subsistence production patterns prevalent in the various ecological zones of the project area are inter-related. Moreover, the farmers make their production decisions taking account of all aspects of their farming systems. Therefore, the project will develop an integrated approach to improving agricultural production in the project area with the full involvement of the farmers and their peasant associations in planning and experimentation. The project will start with a land use/ water resources survey that will provide the basis for developing and implementing this approach. More detailed, locality-specific plans will then be worked out with the concerned peasant associations.

While the project will work on all aspects of production in the project area, certain priorities have been identified. In terms of increasing food crop production, the project will concentrate on the following:

1. Identifying and developing improved practices for increasing the production of sorghum, maize and beans--the preferred crops of the local people. Also, certain varieties are well adapted to the ecological conditions of the area.
2. Crop diversification, helping to provide people with the option of a varied and improved nutritional diet through the introduction of certain vegetable crops and fruits.
3. As more land is made adequate for production through settlements

along the rivers and irrigation projects, the use of oxen for the land preparation will be introduced, along with improvements in agricultural implements.

In the area of livestock production, the project will place priority on the following:

1. Pasture development and range management in order that the livestock are assured of a stable food and water supply.
2. Animal health, both in terms of preventive and curative measures in an attempt to improve herds to a point where surpluses can be marketed.
3. Selective breeding for disease resistance as well as milk and meat production, again to improve the nutrition and/or the marketability of the animals.

Developing alternatives for improving food crop and livestock production will require considerable time. Since this project will last three years, possibly to be followed by a second project, there is the need to strengthen the capacity of the Ethiopian Ministry of Agriculture to carry out research experimentation, and extension activities. The development of the Ministry's capabilities will not be sufficient; the farmers themselves must be brought together and trained through their peasant associations so that the development process becomes a two-way communications process through which acceptable alternatives are developed.

The specific project outputs and inputs for carrying out this approach are discussed below.

Land use Planning and Water Resources Survey

To develop a firmer base for project development (and for the preparation of the Project Paper), there is a need for a preliminary land use/water resources survey. This will be carried out by a rural development specialist and hydrologist with counterparts from the provincial Water Resources and EPID offices. Over a two-month period, the team will conduct this study (mainly in Konso Woreda and on a more limited bases in Geleb and Hamar-Bado Awraja) to determine production potentials. Since the survey will be carried out at a specific point in time, data will be collected from the people of the different tribal groups in order to obtain an historical perspective of past water sources, rainfall, areas cropped, areas grazed and other pertinent data. From this and from the team's observations and field testing, a preliminary map will be prepared and a determination made as to specific activities that can be attempted in terms of river irrigation, water catchment ponds, dams, new or improved cropping areas where adequate soil and water conditions exist, and areas

where livestock improvement can take place in terms of pasture management and health care. With assistance of the PP team's agronomist and livestock specialist, the above determination will then be evaluated in terms of the present capabilities of EPMG agencies and the peasant associations.

The preliminary land use/water resources survey will provide the basis for general planning. With the initiation of the project, the next step will be for the EPID agents to work out more detailed plans with the appropriate peasant associations. Peasant association participation in developing the detailed plans will be critical, for they will have the responsibility for supervising the implementation of the plans. Also, working out these plans may require inter-tribal agreements.

The project will then provide short-term technical assistance to the appropriate EPID and Water Resources staff to develop specific designs for the activities decided upon with peasant associations. This will involve preparation of the specifications and input requirements for dams and catchment ponds to be built, canals to be constructed or renovated, and any spring development that might be performed. (Funding for the development of this infrastructure is provided under the Economic Infrastructure Development component of the project). To provide this assistance, the project has programmed funding for a soil and water conservationist and small-scale irrigation specialist, approximately six man-months during each year of the project.

Expanding the Capacity of EPID/Ministry of Agriculture

The success of the project will rest with the development of the capabilities of EPID/Ministry of Agriculture. To assist in this process, the project will help:

- establish and upgrade EPID/Ministry of Agriculture facilities in the project area;
- provide the necessary logistical support to EPID/Ministry of agriculture personnel;
- provide training and short-term assistance to EPID/Ministry of Agriculture personnel;
- provide funds for the purchase of agricultural supplies for experimental purposes; and
- develop training facilities and programs for peasant association leaders.

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The first step will be to augment the facilities and equipment necessary for EPID/Ministry of Agriculture to carry out research and extension operations in the project area. EPID centers will be established in three locations--Delbens, Arbore, and Karo--which with the current EPID center in Omo Rate will make four in the project area. The centers will consist of a warehouse, office, and two low cost houses for the EPID agents as well as land for experimental plots. Also, at Delbena and Omo Rate low-cost training centers will be constructed. Each EPID center will be equipped with one pick-up truck and motorcycle for staff transportation, necessary camping equipment, and radios; in addition, the Omo Rate and Kara Centers will be provided with boats and motors. All four centers will receive funds and/or supplies for experimentation.

As has been described previously, EPID/Ministry of Agriculture is expanding its staff in the project area. Basically, the system will rely on locally-recruited agents at the woreda level (at the EPID centers), supported by upgraded awraja and provincial staffs who will provide technical support and training for the woreda agents. EPID/Ministry of Agriculture now has sufficient staff in the area to begin project activities, though there will be a need to increase the number of woreda level agents by four. EPID/Ministry of Agriculture will recruit and pay the salaries of these agents, and the project will finance the cost of training them.

The project will assist in the process of upgrading EPID/Ministry of Agriculture staff capabilities through the provision of technical assistance as will be detailed below. Also, as discussed under the Information Systems section of the PRP, the project will develop a system for collecting and analyzing data on local farming systems. It is planned that the woreda-level EPID agents collect information on the production operations of three or four farmers to begin to develop hard information on production practices, land and labor utilization, yields, outputs and alternative sources of income. This information on farming systems in the project area will allow better planning, especially as data is collected on the profitability and acceptability of new practices to farmers.

Improving food crop production

Project activities will concentrate on improving yields from traditional crops and also on crop diversification. The aim will be to identify and develop alternatives that will involve a minimal risk for the farmer. The field investigation showed that there may be improved practices that could increase yields such as changes in planting density, the timing and degree of thinning, the frequency of weeding, the use of organic fertilizer, and the use of improved implements and storage facilities. In addition to the development of land and water resources, the project will test and introduce improved practices as well as crops with high nutritional value. Of particular importance in this process will be involving the peasant

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associations in experimentation by testing what appear to be the most efficacious alternatives on communal or selected farmers' land.

The project will provide a part-time production agronomist experienced in the field of arid farming to help EPID establish its experimental plots and on-farm testing. Ideally, this assistance will begin during the pre-project period (at the time of PP preparation) so that another rainy season does not pass without systematic experimentation. The project provides for two man-months yearly of this type of assistance.

In addition to the agronomist, the project will develop a soils testing capability for the EPID office in Arba Minch so that soil analysis can be carried out in the project area. Laboratory equipment, as well as technical assistance (six man-months), will be provided to EPID for establishing this capability; EPID will provide the necessary staff, office space and building. Soil analyses will be done on a gradual basis as project activities are extended.

Another area to be assisted by short-term advisors is that of grain storage. The PRF team found that poor storage facilities were a problem in many parts of the project area. Since experimentation is this field is being carried out in-country by the the Alemaya Agricultural College, it is anticipated that a local advisor can be contracted to advise EPID personnel on the construction of low-cost insect and vermin free storage units. Prototypes of the recommended unit will be constructed and tested by all four EPID centers.

In addition to these technical assistance inputs, the project will provide the funds or supplies necessary for this experimentation. Also, where appropriate, it will assist EPID's current experimentation with ox-plowing.

Improving Livestock Production

In the area of livestock improvement, there is a need for two short-term advisors. The first should be a veterinarian with experience in the tropical diseases of the area as well as a background in health delivery systems. Through the Ministry of Agriculture, he will conduct on-site training for its veterinary agents in the area in disease diagnoses, treatment and prevention. He will also assist the provincial office of the Ministry in the design of a health care delivery system for use by the Veterinary Services Division. This will entail the identification of disease areas along with a plan for the eventual eradication and/or prevention. This specialist would be required for three months during the first year of the project when the delivery system will be designed, after which one month per year will be sufficient for providing follow-up assistance.

The second area of project concentration is pasture development and range management. The land use/water resources planning described above will start this work. However, there will be a need for short-term assistance from a livestock improvement specialist with expertise in range development and range management. He will work with the staff of Agriculture to identify and develop a plan for introducing pasture improvement technology appropriate for the project area; he will also assist in the examination of options (in light of cultural constraints) for introducing basic range management techniques to the area. It is estimated that five man-months of his time will be required.

The areas of livestock breeding and marketing are both long-term prospects for the project area. Nevertheless, short-term advisors (to be provided by the EPMG) have been planned in the event that possibilities surface during the life of the project.

Two other complementary activities that will be attempted in the project area are the improvement of bee-keeping practices (a source of income for many farmers) and the introduction of fish culture practices to the ponds that are to be developed.

At present EPID is carrying out a small program of introducing movable frame hives in parts of the project area. An apiarist will be brought in for a period of four months to work with the EPID staff in charge of this activity, and certain demonstration equipment will be provided for his and EPID's use.

A short-term expert in aquaculture will also be provided to survey the possibilities of fish farming in the irrigation ponds to be built in the area. Since this is merely an experimental attempt to ascertain possibilities, only one month has been budgeted for the first year, with the possibility for follow-up if opportunities exist.

Field Operations Support

As possibilities for improving food crop and livestock production are identified, they will be demonstrated on both the EPID center plots, as well as the plots of farmers selected by the peasant associations. To accomplish this, support will be provided for the purchase of agricultural supplies: seeds and trees, compost bins, tools, oxen and their implements, bee hives and other apiary equipment, storage vessel prototypes, and improved breeds of animals. Any large scale activities such as the construction of irrigation canals or the widespread introduction of new technology (which at this point in time seems unlikely) will be funded by the Development Fund provided under the economic infrastructure component, either on a matching grant or loan basis.

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Developing the Technical Capabilities of Peasant Associations

If the peasant associations are to become effective vehicles for development change, their technical capabilities will have to be developed. As noted earlier in this section, the project will construct training centers in the Dalbena area and Omo Rata, as well as to provide training materials and funds. These centers will be under the supervision of EPID but will be used for training programs in such areas as health and nutrition and management.

It is planned that the peasant associations become extension organs, with farmers selected by the associations trained as paraprofessionals. These paraprofessionals will supplement the efforts of the EPID agents. Under the project, they will be given training in the improved techniques developed during the field experimentation, complemented by more general courses in such areas as extension techniques, organization and management and agrarian reform. In addition to providing training to the farmers, these sessions will allow a continuing dialogue with the EPID agents on production problems in the area.

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C. Identifying, testing and introducing appropriate technologies for micro-industrial development.

Situation

Within the project area, there are many opportunities for introducing low-level technologies that meet local needs: improved agricultural implements, the production of higher quality leather goods through improved tanning and curing procedures, the making of pottery and baskets and their use for grain storage, the increased production of cloth, the construction of carts and other wood and metal work, and the introduction of primary agricultural processing techniques. Moreover, there exists a traditional system of artisans and craftsmen who supply basic commodities to the farming population.

The most skilled of the artisans and craftsmen are the Konso; their cloth, agricultural implements and other products are in high demand by other tribal groups. Because of their skills and because the Konso area is overpopulated, the provincial and woreda administrations have decided to assist this group expand their production. Their initial effort has been to begin organizing the weavers into cooperatives. Beyond organizing the artisans and craftsmen, government efforts to develop their production potential have been constrained by the lack of an institutional capability to identify and develop technologies that are appropriate to the resource base of the area. Missionary groups in the area are experimenting with improved looms, windmills and other forms of technology but without using a systematic approach or locally available resources.

At the national level several government and private agencies are working on the question of appropriate technologies and their extension to the rural population. The Ministry of Agriculture/EPID has been experimenting with improved agricultural implements, grain storage and agricultural processing equipment. The Ministry of Commerce, Tourism and Small Scale Industries has a Small-scale Industries and Handicrafts Department that has conducted a survey of local technologies in use. The Adult Education Department has plans for training artisans through their Community Skills Training Centers. Also in Addis Ababa, there is the Appropriate Technology Unit of The Christian Relief and Development Association which functions primarily as an information center.

The problem in designing this component was to identify the agency to link this national level interest with the need to develop a local institutional capability in the Konso area. After

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several discussions with EPMC officials, agreement was reached that the Small-Scale Industries and Handicrafts Department was the appropriate agency, having had experience in research, experimentation and training.

Project Approach

The project through the Small-Scale Industries and Handicrafts Department will develop a process that can be replicated for identifying, testing and introducing appropriate technologies for micro-industrial development in the Konso highlands. The important steps in this process are as follows:

1. Identify the technologies currently in use and what groups are using these technologies. (The Small-Scale Industries and Handicrafts Department has such a study for Gemu Gofa and Sidamo Provinces.)
2. Determine local needs through both discussions with the local population and expert appraisals.
3. Identify the technological options and conduct preliminary technical, economic and social assessments of the various alternatives.
4. Discuss and decide with the local artisans or craftsmen the most feasible option.
5. Construct prototypes well as provide training in their use and maintenance.
6. Evaluate the effects of the prototype, including a determination of the acceptability of the innovation to the local population.
7. Determine the process of production and diffusion of the innovation when it is proven to be acceptable.
8. Conduct an ongoing evaluation of the effects of the innovation.

In addition to creating a local capability to carry out this process, one aim of the project will be developing simple approaches and procedures for implementing it.

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The specific outputs and inputs of this component are as follows.

Establish an Appropriate Technology Center. The project will construct the center as well as low-cost housing for its staff. Tentatively, it is planned for the center to be located in the Delbana area so that its activities can be coordinated with EPID and the training being provided to peasant association leaders.* In addition to developing its facilities, the project will provide a vehicle, office equipment and supplies.

Develop the Center's Staff Capabilities. The Small-Scale Industries and Handicrafts Department will recruit three staff members with technical and research skills. The source of these individuals will be either university students who have completed their third year or graduates of the Mekane Yesus Training Center in Arba Minch--both types would be available according to the Head of the Department. For the first two years, the project will pay the salaries of the center staff, with this responsibility being assumed by the government third year.

The project will help develop staff capabilities of the center as well as the national office through the provision of short-term technical assistance (in intermediate technology, feasibility study preparation, marketing.) In addition, it will fund study tours to Kenya and Tanzania where considerable research and experimentation has been done on improved agricultural implements. Additional assistance may be required from AID's African Region Intermediate Technology Project.

Identify and Develop Appropriate Technologies. Even before the facilities are completed, it will be possible to begin the process of identifying opportunities for technology development. Priority will be given to those areas where there are existing skills and raw materials and to those activities that are related to increasing agricultural production. For example, the Konso blacksmiths make and sell agricultural implements throughout the project area; another example would be helping the pottery and basket makers to construct and sell improved grain storage containers. To assist the center conduct the initial and ongoing studies, the project will provide a small research fund for assistance from an Ethiopian research institution. The project will also provide

*If possible, the two centers will be combined under one roof.

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funds for experimentation as the technological options are identified. Assistance for evaluating the prototypes that are developed will come from the information systems specialists provided under the first component of the project. A small fund for training artisans and craftsmen has been provided when prototypes prove to be successful.

The organization of the producer cooperatives will continue to be done by the Ministry of Agriculture and Settlement.

- D. Developing the minimum economic infrastructure necessary for promoting increased production.

Situation

As has been noted in the description of the project area, the economic infrastructure of the area is poorly developed and extremely limited. Local government officials see roads as the critical constraint to improving production in the area as well as to effective interaction with the local population. The current USAID rural roads projects will link the major towns in the project area; this effort could be extended. However, there are no plans as yet for the development of rural access or "farm-to-market" roads. Almost all transport of local produce and movement in the area continues to be by foot.

A second major constraint is insufficient water supplies for irrigation, the watering of livestock, and family consumption.* The questions involving the development of water resources are complex. For example, there is a history of tribal groups digging irrigation canals and catchment ponds; many of these have dried up for reasons that are unclear--perhaps because of drops in water levels, or because of changes in river course, or because a river has dug a channel that is now deeper than that of the irrigation canal. The critical question is why the people have not maintained them. Also unknown are the effects of the drought on the natural water catchments in the highlands

* Since preparation of the PRP, it has been learned that the Canadian (CIDA) has agreed to a large scale water development program for Bale, Sidamo, and Gemu Gofa. The Mission will establish the interrelationships between these two projects during the preparation of the PP.

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and on the rivers in the lowlands. While the answers to these questions will have to be found by the project, there still appears to be excellent potentials for water development activities such as hand-dug wells and spring development, the construction of catchment ponds, the digging of irrigation canals, and river diversions.

Several water development activities are underway in the project area. Chinese technicians are drilling deep wells in the Konso area. Also, the Norwegian Mission in Konso is using Food for Work to pay Konso for deepening catchment ponds, and plans to recruit a water resources expert. Additionally, through Food for Work, a German volunteer encouraged the Hamar and Arbore to construct a diversion dam and irrigation canal on the Waite River which has opened up new lands. The American Missionaries in Kelen have introduced windmill irrigation, and EPID in Omo Rate is experimenting with pump irrigation. The Swedish Mission in Kibish has started a well drilling program. The Water Resources Authority has done a preliminary survey of potential locations for hand-dug wells and spring development as well as made plans for hand-dug well team to start work in the area.

Closely linked with the need to develop water resources is that of long-term investments in soil and water conservation measures. Konso is the only area where there is evidence (the elaborate terracing) of local concern and action. However, soil and water erosion is a major problem for most parts of the project area.

The physical infrastructure for supporting development activities is also minimal, except for the facilities of foreign missionaries. Konso is the only area where there are market days and facilities. As production expands, there will be a need eventually to develop a marketing infrastructure.

Project Approach

The project will develop this component by involving the peasant associations in the planning of infrastructure development activities. This planning will include a delineation of the inputs that are to be provided by the project as well as those to be committed by the peasant association. In areas where there is not an acute food shortage, Food for Work will be eliminated entirely; in other areas, the amount of food compensation will be reduced gradually and provided only as long as there is a crisis. For this approach to work, the province will have to exercise careful control over the distribution of food supplies, including those distributed by foreign groups. The woreda, awraja and provincial administrators suggest that this is a feasible approach.

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As discussed under the previous component, the process of involving the peasant associations in planning development activities will begin with the land use/water resources survey and the follow-on work to develop locality-specific plans. Ideas of potential activities will be presented by peasant association representatives at meetings of the Revolutionary Administration and Development Committees at the woreda and awraja levels for approval and submission to the provincial committee. At the provincial level, appropriate assessments and, if necessary, detailed specifications will be prepared (perhaps with the assistance of the short-term soil and water and irrigation specialists) and plans and funding will be approved.

Supporting Peasant Association Initiatives. The project will establish a Development Fund to support Peasant Association initiatives to develop local infrastructure. Such initiatives may include: feeder roads, water resources development, soil and water conservation measures, community service infrastructure improvements, bush clearing to contain the spread of tsetse flies, market or cooperative store development, and agricultural production activities (See discussion under component B.). The development Fund will be controlled by the Provincial Revolutionary Administration and Development Committee. Small in-kind grants will be made to complement the resource commitments (land, labor infrastructure development activities).

In addition to the feasibility (social, economic, technical) of an initiative, the main criteria for providing support will be the level of local resource commitment. Because of the varying effects of relief assistance on different groups in the project, it is not desirable to establish a standard percentage requirement before a peasant association receives an in-kind grant. However, there will be a basic policy that this requirement increase over the three-year life of the project.

From the PRP team's field investigation, it is anticipated that several associations will wish to build rural access roads. The current technology for constructing labor intensive roads is poorly developed so the project will provide short-term assistance in this area. The short-term assistance proposed under other components of the project will also be available to support peasant association initiatives.

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Support for hand-dug wells and spring development. The Water Resources Authority has developed plans to carry out 100 hand-dug wells and spring development projects in the area. In addition to providing the Development Fund, the project will assist the Water Resources Authority's program in several ways. The project will equip two "hand-dug well teams" with vehicles, camping equipment and supplies; the Water Resources Authority will provide a third team to work in the area. Also, the project will provide the materials and supplies for the 100 projects, and the peasant associations will provide the labor. If needed, three man-months of technical assistance by a water supply or public health engineer has been programmed.

MB: A very real possibility exists that the rural access roads required can be provided for under the rural roads project, and that the technical assistance and commodities required for hand-dug wells and spring development can be provided by CIDA. This possibility will be examined carefully in the PP preparation.

F. Experimenting with methods for improving the quality of those social services that increase the well-being and productive capacity of the local population.

Situation

Discussions with farmers and peasant association leaders indicated that poor health was a major constraint to improved production. In particular, this was a concern in the recently-settled river basins where malaria is prevalent. The Malaria Control Service, assisted by USAID, has already established a schedule for spraying and other control activities in the affected areas of Konso, and will develop its program in the Omo and Waite River valley areas during the coming year.

Health facilities and other social services are not well developed throughout the project area. The three foreign missionary groups have clinics in Konso, Kelem, and Kibish. Foster Parents will provide two mobile health clinics for operations in Konso and the Arbore areas. The Ministry of Health has a health center at Omo Rate and plans to establish a second near Delbena; it also has plans for establishing clinics in the Boume and Arbore areas. The provincial health office emphasized

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that the only services currently being provided are curative and that priority should be shifted to preventive health care, in particular nutrition education. In line with national government policy, he wishes to establish a program for training village health workers whose primary responsibilities will be to provide nutritional education and to introduce improved health and sanitation practices.

The development of potable water supplies (see previous section) should have a positive effect on the people's health. Also, improved livestock and food crop production will contribute, especially if it is possible to introduce the production of protein-rich vegetables and vitamin-rich fruits into the project area. However, experience in the area suggests that acceptance of these new crops will require a strong nutritional education program.

Educational facilities in the area are also not well developed. The Ministry of Education has schools in Konso (Bakaule), Arbore and Omo Rate. However, they frequently lack teachers and supplies. The three foreign missionary stations have schools. From the viewpoint of the peasant association leaders, functional literacy is a particular need so that the associations can carry out their responsibilities.

Project Approach

This component will be a low-cost effort to begin experimentation with approaches to providing preventive health care and nutrition and family planning education. It will be carried out, in collaboration with the peasant associations, using mainly existing facilities and personnel as well as tapping the materials and experience of such national agencies as the Ethiopian Nutritional Institute and AgriService.

The first step will be to identify the major health and nutritional needs in the area. This will be done under the USAID-sponsored Nutrition/Health Early Warning System Project, with the assistance of a short-term specialist in village health and nutrition program. This work will be carried out through the provincial health office which will have the responsibility for organizing the training of the village health workers.

The peasant associations will select those individuals to be trained, and as is the current practice, they will serve without pay. The training will take place at the two health centers

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(Omo Rate and Delbena) which are currently fully staffed. As yet, the Ministry of Health has not developed a curriculum for training village health workers so the project will purchase materials and draw on the services of AgriService, as well as the Ethiopian Nutrition Institute, to develop a series of short-term training sessions. Also, the training of the village health workers will be directly linked with the improvements being introduced by EPID/Ministry of Agriculture. Through this experimentation, the project should be able to develop an understanding about the problems and potentials of training village health workers that will be useful in shaping the Ministry of Health's national program.

Another area of experimentation will be developing with the provincial education office, a program of functional literacy training for the peasant association leaders. Even though there are limited educational facilities in the area, there are several teachers. Functional literacy materials are available, and will be provided by the MGE. Also, the project will provide small salary supplements for those government officials, teachers, students and other local people willing to teach.

1. AID AND OTHER RELEVANT EXPERIENCE

Over the past year, USAID personnel have made frequent visits to the project area, initially concentrating on the problems of drought relief, later designing the rural roads projects, and more recently examining the long-term prospects for developing the area. From this interaction, the Mission has acquired a growing understanding of the peoples in the area as well as of the government's and other agencies' efforts to encourage developmental change. This project reflects this growing knowledge but its design represents a healthy realization that there are no clearcut solutions to developing this "marginal" area which, while primitive in an economic development sense, has complex social and production systems.

The project is designed as an evolutionary process that attempts to maximize local involvement in decision making and local population resource commitments; this is consistent with EPMG and AID policy and with the most recent research on the problems of getting development benefits to small farmers -- e.g. the AID contracted study, Strategies for Small Farmer Development, and Uma Lele's Rural Development in Africa.

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Several other concepts have been incorporated in the project that have proven efficacious in other development efforts. The project supports the EPMG's process of decentralization in a way that will allow local leaders and government officials to tailor development activities to the specific needs and potentials of various localities. Second, it further supports the EPMG's policies of increasing the decision making powers of local organizations, as well as developing their technical and organizational capabilities: this approach has led to successful and selfsustaining local development efforts in Eastern Nigeria, the Gambia, and Bolivia. Third, the project proposes an integrated approach to food crop and agricultural production, with a built-in recognition that farmers will make production decisions on the basis of their total farming system: this concept is relatively recent and is only now being incorporated into programs of international research institutions such as IITA. Fourth, the technology to be developed in the project is low-cost and requires a minimum of external assistance to maintain it. Fifth, the project is designed in such a way as to minimize the recurrent budget requirements on the EPMG, hopefully increasing the likelihood of the benefits of the project to become self-sustaining.

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4. RENEFICIARIES (SOCIAL SOUNDNESS ANALYSIS)

Intended Beneficiaries

The individuals and groups which will benefit directly from the proposed project include the farmers and pastoralists of the southern Gemu Gofa region, as well as the traders, artisans, and local producers of handicrafts who are already present in the region. These groups will benefit directly from the components of the project which relate to agricultural and livestock production, to the development of micro-industrial capacity, to the development of local economic infrastructure, and the improvement of social services. In addition, they will benefit indirectly through the project's provision of assistance to develop the planning, implementation, and evaluation capacity of those involved in local government. In the first instance, assistance to develop this capacity may be focused on the local government officials who operate outside of, but in conjunction with, the evolving peasant associations. As the project continues, however, direct and indirect assistance in this area will also be extended to the memberships of these associations themselves.

The various ethnic groups represented in the project area are among the "poorest of the poor" of Ethiopia. In addition, they have recently experienced severe privation due to the drought conditions which have prevailed in the project area over the past four to five years. Yet, the preponderance of the evidence indicated that there is a real potential in the area for improvements which will lead to self-sufficiency in food crop and livestock production in future years. There is also good evidence that this production self-sufficiency can be allied to self-determination in terms of the development of viable local government institutions in the area.

Regarding the relationship between the target group and other groups in the area, it is significant that the target groups interact with others in the region and beyond, both socially and economically. Further the project is designed to build upon these traditional axes of interaction, as well as to introduce others which will be beneficial to the various groups within the target population and beyond. Since the project area encompasses parts of two administrative entities -- awrajas -- and is central to the drought-affected area of the province, it is reasonable to anticipate that over the life of the project, benefits will indeed spread from the initial target groups to other groups in the region.

During visits by Mission personnel and by the PRP team, the views of the local people were repeatedly solicited concerning their needs and desires in the areas of food crop and livestock production, social services, and economic infrastructure. Responses were obtained from all segments of the population, including women and men involved in production, elders who

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are the elected representatives of the various ethnic groups, and local administrators. These responses were often extremely specific. The project as designed will, in a flexible and evolutionary manner, meet these expressed needs as well as those higher-level needs expressed by officials at the provincial level.

The emphasis within the project design on improving the planning and management capabilities of local government--including the membership-based peasant associations--should help ensure that over time the project continues to meet the needs of the people as they come to change. Critical to project implementation will be the process through which information feeds through the local system from the farmers and other producers up to the provincial government, and back down. In the process of collecting the processing information on their own situation and needs, farmers and others will be able more specifically to delineate and vocalize these needs, as well as to identify and suggest improved ways of meeting them. This emphasis will also ensure that no interest group will be able to take over the project, or otherwise skew its activities.

Similarly, attention to local-level participation in the implementation of the project will preclude the possibility that any group may become seriously disadvantaged as a result of project activities. In any event, the only group which stands to be adversely affected by the project might be the locally-stationed police. In the past, the police have somewhat exceeded their mandate, and have come to represent almost the exclusive government presence in parts of the project area. They have been used as distributors of relief, and have on their own become quasi-merchants or brokers in the area. As the administrative capability in the area improves, and as economic infrastructure is developed, the police should be able to return to their legitimate function, policing.

Social Issues

There are a number of characteristics of the project area which are related to the social soundness of the project. However, these do not comprise what are usually referred to as "social impediments." Rather, they are factors which affect social organization, and may act as constraints on--or assets to--various aspects of project implementation which relate most specifically to the social system.

1. Socio-cultural System. There are various traditional links among the ethnic groups in the project area, both within and outside the context of trade and exchange. It is difficult to determine for how long these various links have existed, or how they have been transmuted over time. For example, it appears that the Hamar have at some times been closely allied to the Galeb, especially when they had to leave their own highlands because of pressure from other local and outside groups. At other times, they have been on poor terms with the Galeb, especially in the past decade.

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Similarly, Hamer and Arbore have cooperated ritually and practically in some spheres while occasionally being on poor terms and engaging in mutual raids. Karo and Mursi cooperate through a system of bond-friendship or trade-partnership at present, but in the past, this situation may not have obtained. The Bume, who are regarded as the fiercest of the groups in the area (with the exception of the Borana who impinge on the Konso and occasionally on the Tsemai, Hamer and Arbore) have also apparently had a generalized but profound effect on the cultures of the other peoples in the area.

The effects of the recent drought on inter-group relations have been mixed. In the first instance, drought conditions appear to have exacerbated inter-group conflict, especially when the cattle herds of one group were drastically depleted, and attempts were made to build up herds through raiding. On the other hand, pressure on available river-fed land for cultivation during the recent drought led to the reinstatement in some areas of previous cooperative arrangements for farming among a number of groups in the area, particularly the Hamer and the Arbore. In instances where farming in close proximity is or was not at issue but where seed was in short supply, the drought seems to have led to arrangements through which members of various ethnic groups either purchased, "borrowed," or "begged" seed from other groups in the area whose supplies were better.

While these generalizations seem to hold for the Arbore, Tsemai, Hamer, Galeb, and Bume, they do not necessarily apply to the Konso, whose ecological and socio-economic situation is significantly different. As will be seen under 2 below, the Konso play a pivotal role in terms of exchange and trade throughout the project area. As far as their internal situation is concerned, they have been relatively more disadvantaged by the drought than the other groups. While they have better access to markets where there is grain for sale--especially Gidole--they lack the tradeable surplus, and the very size of the population of Konso can disrupt the trade balance in the area. Moreover, the Konso economy has been upset by attacks by the Borana. While the attacks are not motivated by economic needs or consideration, but by the desire among the young warriors to gain honor by killing and castrating a non-Borana, they have caused groups among the Konso to abandon some of the land under cultivation. This, on a marginal economy, has created a serious food shortage in communities inhabited by some 18-19,000 Konso. The situation is further complicated by the fact that the Konso are also threatened by increasing levels of soil exhaustion, at a time when their pressure on the available cultivable land is increasing. Various efforts have recently been made by the Land Settlement Authority and Foster Parents Plan to resettle small numbers of Konso families within the traditionally Konso area. In addition, a certain amount of spontaneous resettlement

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has also occurred there. There appear to be a number of views about when and where additional numbers of Konso should be resettled which will be discussed below in section. What may be stressed here is the importance of the possible implications of such resettlement for the other groups in the area.

Overall, then, the situation within the project area with regard to cooperation and conflict is complex. It has also changed in recent years. Local officials and volunteers resident in the area indicate that with the completion of additional irrigation channels and provision of wells, it is likely that the incidence of intermittent conflict will decrease, and that the former relations of cooperation in terms of farming and herding will be reinstated. Again, this generalization applies most directly to the Hamar, Arbore and Galeb. It does not necessarily cover the potential problems of conflict generated by and among Konso and Dorana in the east, and Bume, Karo and Mursi in the west. For these groups, water is also a critical factor. But in the west, the situation is complicated by the question of access across international borders. At present the Bume appear to move with impunity into the Sudan, where they interact with the Toposa. Similarly, Galeb at this time are moving their cattle down toward Lake Rudolph (Turkana), there they interact, apparently peacefully, with the Turkana. The role of the Kenya police in terms of allowing these movements seems to have changed in very recent times, and Bume and Galeb elders indicated that at present there were no restrictions on their movements. A recent meeting of representatives of the three countries concerned about the regulation of movements across these borders should lead to some clarification of the situation that will obtain during the life of the project.

There are a number of project inputs which may have a positive impact on the interrelationships among the various groups in the area. When combined with other inputs planned for the area by a number of Ethiopian government agencies and other Ethiopian institutions -- as well as international voluntary agencies -- it is likely that the cooperative relationships can be strengthened and the incidence of conflict reduced. Improvements in economic infrastructure, especially increasing supplies of water for irrigation and for human and animal consumption, and extension of roads in the area, should have a quick and profound positive impact. In addition, logistical support made available through the project to locally-placed staff of the various technical ministries, as well as to local government officials should lead to a more balanced situation with regard to meeting the immediate and long-term perceived needs of the various groups.

At the same time, as peasant associations are formed throughout the area, a structured arena for interaction among representatives of the various groups will be provided at the woreda and awraja levels. If, early in this process, the project can provide necessary inputs to strengthen

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the management capability of peasant association leaders and other members, there is a good chance that the kinds of decisions which have to be made by them -- and which will impinge on members of other, similar associations -- can be made in light of better and more inclusive information. At present, while relationships of cooperation do exist, they are contingent, and a structure for perpetuating them is lacking. Meanwhile, at the administrative level, the limited ability of administrators to reach the people in their own and other districts has tended to preclude efficient planning for the area as a whole.

Care must be taken, however, during project implementation to see that a balance is maintained in the provision of a variety of services and inputs to the various groups concerned. If it proves possible, for example, to establish training and other centers in more than one location, the groups which have previously received the least attention from government and other sources will immediately become more closely integrated into the project itself, and through it to the national system. Thus, while there is a tendency to focus on the immediate and long-term needs of the Konso, it is important to stress issues relating to equity which affect the other ethnic groups in the project area, even though they may not have been as seriously affected by the drought. In this connection it would be inadvisable to rely exclusively on the presence in Galeb and Hamer-Bako awraja of missionaries and other voluntary agencies. Rather, the project should take this presence into account as a useful supplement to project inputs, rather than regarding these specific project inputs as supplementary to the situation that already exists.

2. Economic and Commercial System. One of the components of the system of interaction between and among the groups in the project area is the traditional system of trade and exchange. This system operates in terms of at least three axes. Perhaps the most crucial axis runs from Konso in the east, through Galeb and Hamer-Bako awraja in the southwest. Konso traders bring a number of articles manufactured in Konso down through the rest of the project area, trading them for goats, and occasionally selling them for cash. The primary trade article is Konso cloth, which is highly prized by the other groups, who do not weave themselves. In addition, traders (often Somalis based in Konso) provide some metal implements used for farming, locally produced alcoholic beverages, soap, and other goods, including coffee and tobacco, which are unavailable in the rest of the area. This trade system appears to be highly lucrative, but it is unclear to what extent the profits are redistributed or reinvested back in Konso.

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A second, important axis links Jinka, the awraja capital, with various groups in Galeb and Hamer-Bako awraja. Most of the groups in the awraja occasionally take cattle to Jinka to sell or to trade for guns, ammunition, cloth, and other manufactured goods. In the past, when raiding was endemic, Arbore and others sent some young men with their herds to Jinka for safe-keeping. As a result, not only were the herds preserved, but the young men who went with them attended a government school in Jinka, where they learned Amharic. As well as being the administrative center of the area, Jinka is also served by Ethiopian Airlines three times a week, so that for purposes of the project, it provides a focus for channeling project inputs. The extension of the AID-sponsored road to Jinka will also increase its potential as a regional center.

The third axis is a traditional one toward the south and west. Arbore and Tsamai get their implements from Konso and from the Hamer blacksmiths in the highlands. Galeb get theirs from Hamer craftsmen and from Jinka. Bume and Karo, as well as some Galeb, however, get theirs from Toposa and Turkana as well. They also get cloth, sandals and decorative mud from the Sudan and Kenya from various itinerant traders.

The components of the project which center around the creation and development of appropriate technologies for agriculture production, and the development of handicrafts and small-scale industries relate closely to this issue of the existing balance of trade in the area. While there is no elaborate marketing system outside Konso, there is a sustained traditional commercial or trading system in operation which supports the craftsmen of each group. It is important to ensure that the project activities in this area be designed in such a way as to strengthen this balance rather than to favor one group over the others, thus effectively putting some local craftsmen out of business. A thorough analysis of available skills must be undertaken before new technologies are introduced.

An additional concern should be effects of the project on the terms of trade which are currently accepted in the area. For example, one goat equals four measures of sorghum at the present time. If yields of sorghum are increased, it may be anticipated that the value of a goat for trade purposes will decrease. This, in turn, may be expected to have an impact on size of herds which are maintained (which will in turn be related to project inputs in the area of animal health) which, in turn, may have an adverse effect on overall land use and especially range management. A further concern mentioned by government representatives in the area relates to the nature of articles traded into the area. Particularly, they are dismayed by the increasing introduction of alcoholic beverages which are grain based, and by the increased use of

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tobacco. Coffee, however, has come to be their own informal exchange item, and the use of coffee has expanded in the project area in recent years. In the Omo Raate area, farmers have recently begun to sell grain to the wives of the local police, who use the grain to make alcoholic beverages which they then sell to the farmers for cash. In a period when grain is ostensibly in short supply for eating, this is not a situation which should be fostered.

Generally, project personnel should give close attention to the location and magnitude of market centers which may be introduced, as well as to the variety of items which may be produced locally or imported for sale in these market centers. Wherever possible, efforts to increase yields and diversification of food crops should be combined with nutritional education. In addition, an approach should be taken which will build upon the traditional adaptation which uses cattle as an insurance policy against insufficient yields of food crops. There is general agreement among the people themselves, and among experts working in the area, that the reliance of the various ethnic groups on milk and blood as a supplement to their diet of staple grains is one of the most important components of their survival system, both in good years and in bad.

One suggestion which has been made, and which may be useful to consider during the life of the project, is that members of the ethnic groups near Lake Stephanie be organized as game wardens. The supposition is that if they are given this responsibility, they will be more highly motivated to preserve the game in the area, as well as having a reason to cooperate with each other. Thus, if Hamar, Arbore, and even Borana were encouraged to work together in this capacity, they might create linkages which would foster further intergroup cooperation, or at least minimize intergroup conflict, especially over livestock.

A related idea which merits consideration concerns using Borana or others in the area who are known for their good stock management techniques and practices as role models/instructors for livestock herders from other groups whose methods are inferior. This again would foster intergroup cooperation, and hopefully reduce conflict. Since the Borana, together with the Guji, might give the Konso and others serious problems by intermittent or consistent cattle raidings, once the project has led to increased herds, this kind of a program might have the effect of shifting their emphasis toward constructive interaction. If they can be made to feel that their livestock-related skills are appreciated by the other groups, and can be given a teaching role, two purposes at least will be served. They will tend to be more cooperative with Konso and others, and may also have a real and constructive impact on these other groups by sharing their knowledge with them. If these assumptions are valid, there might also result a progressive decrease in the amount of project funds which would have to be spent on inputs in the area of livestock improvement.

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3. Relief Mentality. A number of the ethnic groups in the project area have been reached only sporadically by the national government in any context. However, their closest contact with government during the drought period has been with the Relief and Rehabilitation Commission, either directly, through attempts at outreach on the part of RRC officials based in Arba Minch, or indirectly through relief grain and relief food programs administered on behalf of RRC by missions and other voluntary agencies. At the height of the drought, the RRC understandably focused its activities in the area of provision of relief of food for work programs. Given the poverty of communications in the project area, and given the acute demands placed on RRC throughout the country, it is not surprising that control of distribution of relief goods in the area may not in all cases have been highly coordinated. It appears, for example, that a very informal information network was used to apprise RRC of relief needs throughout the project area, with the result that more relief supplies may have been channeled to certain areas while other areas were not supplied for lack of sufficient timely information concerning their needs.

Nevertheless, both relief goods and news about their availability did flow throughout the area during the drought period. The side-effects of the relief program have been several, according to local reports. In the first instance, some farmers who foresaw a poor yield potential refrained from planting because they felt sure that relief grain would be forthcoming. In other areas, while farmers did continue to plant, they appear to have planted less than they might have, or to have planted one crop rather than two in a given year, again because of expectations about the availability of relief grain. Over time, still other farmers appear to have planted relief grain rather than eating it. Given the lack of available inputs from Ministry of Agriculture and EPID in some of these areas, this has led to a situation in which hybrid deterioration is now occurring. This not only means inferior yields this year, but also the possibility for even worse yields next year if this year's crop is used partly for seed.

Perhaps more crucial is the relief mentality which has been generated throughout the project area. Food for work programs are still in operation, but it is reported that farmers and others are unwilling to contribute their labor to these projects since they feel that they have a right to relief grain and clothing without any input on their own part. Meanwhile, those who have got used to food for work are uninterested in engaging in non-paid communal work projects. Again, there are some exceptions and there are also variations in the negative response to food for work. For example, in Konso various irrigation schemes are being constructed using food for work. The assumption on which this is

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done is apparently that there are food shortages at present in the area. However, although the people participate in the projects on this basis, they have for generations been famous for communal work projects where no payment was forthcoming. Since the introduction of relief and food for work, they have come to expect compensation for the kinds of work they would traditionally have done without it.

In the Arbore area, on the other hand, where the tradition for communal work is less strong than in Konso, it appears that previous food for work irrigation projects involved such a high rate of compensation that present and future ones have to operate in terms of local food for work "inflation." Meanwhile, it is reported that in Kibbish, there is an oversupply of relief grain as compared to the apparent need in the area. At present, the distributing agency is storing the grain against future needs, being aware of the perils associated with inappropriately timed distribution. However, the local Bume elders are militating for immediate distribution at a time when they appear to be about to experience a good harvest.

While it may be inadvisable to recommend a fixed policy with regard to food for work or the free distribution of grain for the duration of the project, it is important to stress the issues which are involved, and the side effects which have already been generated. It is to be hoped that the new, improved early warning system for health and nutrition will allow more effective planning for relief distribution in the event that the drought continues. Overall, it is crucial that the impact of project inputs which are designed to increase yields and diversify crops produced should not be lessened or even nullified by the indiscriminate introduction of continuation of relief-oriented programs in the project area. Further aspects of this issue as they relate to spontaneous and organized settlement will be discussed separately below.

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4. Attitudes toward Developmental Change. One of the most striking impressions gathered during the PRP team visit to the project area is that majority of farmers and other locals questioned indicated strongly that they wanted government and other assistance in the area of crop production and livestock improvement. Among all respondents, major stress was continually placed on the availability of improved water sources for irrigation and human and animal consumption. It should be emphasized that these responses were immediate and definitive--it was not necessary to "tease" them from respondents; rather, most individuals and groups were extremely insistent and openly stated that unless results were soon forthcoming, their tolerance for additional promises in this area would soon diminish. Aside from this generalized expression of interest in development-oriented assistance and programs, groups throughout the project area were quick to point out that while they rely on the food crops they are able to produce, their livestock provide them with their major form of insurance, as well as their major trade item. Thus, while they requested assistance in the irrigation of fields, improved seed, and also expressed interest in learning to cultivate with ox-drawn plows, they were also vocal about their needs in the area of livestock health and pasture improvement.

Further discussions with farmers and with local EPID agents and others, as well as visits to demonstration plots, yielded a distinct impression that throughout the project area, there is a general receptivity to the introduction of new crops as well as of improved varieties of sorghum, maize and beans the major staple crops in the area. Given this receptivity, it is important that the project involve farmers closely in the development of appropriate and acceptable technologies in this area as well as in the micro-industrial sphere. Here special attention will have to be given to the acceptability of otherwise appropriate technologies. The example from the Omo Rate windmill scheme should be instructive: local farmers lack interest in what is essentially an appropriate, technology, but still too sophisticated for the Galeb, and thus unacceptable to them.

It may take the life of the project to develop appropriate technologies to increase food supplies to an acceptable level. Thus, initial stress should be placed on improvements which will lead to increased quality of subsistence. However, despite various egalitarian traditions present in the area, it is likely that rates of adoption of innovations will vary, and that some farmers will produce more than others, even eventually developing the ability to produce limited surpluses. As and when this occurs, there are a number of issues which may be relevant to the generation and handling of surpluses. At present, anthropological evidence indicates

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that in at least some parts of the project area, there are norms which militate against the production of surplus. Where sharing is stressed, and where there is a redistribution system based on kinship and affinity, the motivation to produce surpluses on individual plots is lessened except insofar as status is gained through the demonstration of generosity. In other parts of the area, there is apparently a tradition of demanding gifts of food and other goods. Here again, the system is complex, and assumptions about the value of individual gains should be tentative.

Among the Galeb, for example, it is good to demand food and things from others who have more than the one who demands. This might be interpreted to mean that there is a sector of the population that has less need to produce for complete subsistence since there are ways that they can supplement their yields through requests made to others. On the other hand, it also implies that there are others who are motivated to produce more than they need so that they can meet these demands, and thereby gain status. Among the Arbore, there is apparently a relatively highly developed system of "credit" through a kind of clientship. Allusions are also made to similar systems among and between Karo and Mursi, Bume and Karo, and Bume and Toposa.

A further factor which may affect motivation to produce more than is required for subsistence is the present system of allocation of usufruct in the area. Among Hamar and Arbore, elders apparently allocate plots to heads of household on the basis of need each year. However, once the land is allocated, cultivation is the responsibility of the household, which operates as the production unit. This system also appears to be characteristic of the Tsemal. Among the Bume and Galeb, the system is similar in that allocation of usufruct is made by the elders. But then husband and wife are apparently equally responsible for using the land.

While some communal labor is organized and paid for through feasting in most of these groups, the emphasis is on production by individual family units once the land has been allocated. Where there are surpluses, at present they are converted into status or prestige through feasting and ritual performance, or else they are used as the basis for trade in terms of the system outlined above. Thus, there is room in the present cultural system for the absorption or conversion of limited surpluses, and more outlets are likely to emerge as the project evolves. Therefore, in the first stages of the project, it is reasonable to expect that innovations which are properly developed in consultation with farmers themselves, and which are properly phased, will be accepted so long as the balance between crop and livestock production is preserved, and the terms of trade which are already accepted within the project area are not drastically altered.

5. Peasant Association Structure. The development of the peasant association structure in the project area will be central to the evolution of all activities, including those specifically relating to the project. Given the traditional social-organizational structure which obtains in most of the area, little difficulty is anticipated by land reform and settlement officials who are in charge of organizing the local population into peasant associations. However, the actual pace of this process is not clear. Various local officials estimated that peasant associations had already been organized in four of the six woredas in the project area. Officials in Arba Minch, however, indicated that as far as they were aware, the pace had been rather slower. Officials in Addis were under the impression that the process had been completed for the entire area.

Since the proclamation of land reform for the whole of Ethiopia, increasing emphasis has been placed at the national and local levels on the responsibilities of the evolving peasant associations. At one policy extreme, the peasant association is seen as the focus of all local government activity, including the policing function. The more moderate and apparently accepted position is that over time, peasant associations should become the locus of participation in the development process, but that their efforts will continue to be supplemented by the presence and activities of local government administrators, police, and local representatives of the various technical ministries.

Given the wording of the various relevant proclamations, duties of peasant associations are already multiple. They are responsible for the redistribution of land, the building of schools, clinics, and roads, the preservation of the environment, dispute settlement, policing through their militia arms, and the provision of social services. All peasant association leaders must be unpaid, donating their labor for the good of the membership and of the country. Membership in peasant associations, and rights to usufruct on peasant association lands, are constrained by a number of criteria which are designed to eliminate subversion of the intention and reality of agrarian reform by members of the former elite. The allocation of land to appropriate persons is on the basis of the household, and officially includes allocations to women who are heads of households. In addition, there are supposed to be womens' associations under the jurisdiction of the peasant associations. In some instances, this has led to an unintended confirmation of the previously poor position of women in the community, since women have been excluded from membership in the peasant association and relegated to membership in the womens' association which are poorly defined organizationally and in terms of their intended functions and responsibilities.

Konso appears to be the only woreda in the project area in which peasant associations are already developed. In fact, many of the existing 34 associations appear to be quite strong, and to be able to act as viable organizing mechanisms for local action of all kinds. Data concerning the extent to which the former local elite were excluded from membership or from leadership positions conflict, however. It may be that in some associations, traditional leaders were accepted and nominated to leadership positions within the new association structure, whereas in others traditional leaders were excluded. The organizing process just after the proclamation of land reform was extremely variable throughout Ethiopia, and even within given administrative units. This was partly a result of the uneven representation and goals of the Zametcha students who were in many instances in charge of the creation of peasant associations. Zametcha students were apparently active in the Konso area but did not reach the other parts of the project area before the Campaign (Zametcha) ended.

In Arbore, there is a traditional organizational structure which will apparently form a convenient basis for the new peasant associations. There is already a consensually selected leader for the Arbore, who retains his old imperially-given title of Grazmatch. There is a "secretary" who runs the communal affairs of the Arbore in consultation with this chief elder, and it is anticipated that this situation will continue when peasant associations are organized.

This raises an immediate question which should be answered during the life of the project, and which will be of great importance to project effectiveness; can the traditional leadership structure, however egalitarian in ideology and in practice, be successfully integrated into the peasant association model in such a way that the peasant associations will be able to meet their manifold responsibilities? For the Arbore and for the Hamar, who also have consensually chosen leaders, the answer would appear to be a conditional yes. That is, there are individuals who have sufficient practical management experience, and who have sufficient authority in the localized ethnic group to provide the core of leadership for the associations. However, it is not clear that these traditional leaders will be eager to delegate authority, and to sponsor the development of similar skills on the part of others, especially those who are not related to them through relationships of kinship or affinity, or who are perceived as too young to bear such responsibilities.

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The current situation among the Galob is somewhat different. Here there is a viable age-set structure which is cross-cut by a system of application groups. Thus, leadership is spread across more individuals--those in the reigning age set--and is also dispersed to others through the complementary "affiliation groups" which also have sanctioning power, particularly regarding standards of mutual assistance. This characterization seems to hold for all eight Galeb clans. However, it should also be noted that these clans are ranked from the most important to the least not on the basis of numbers but rather on the basis of strength and prestige. It is worth noting also that the clan which is prominent in Omo Rate ranks toward the bottom of this hierarchy, and attempts should be made to involve members of the other clans in this area in the project.

The Bume also have elders, whom they say they elect, and who are responsible for the annual allocation of land by family on the basis of need. These elders were extremely vocal during the PRP team visit, particularly about their desire for more relief grain and relief clothes, as well as in their complaints against the police. However, at the same time they said that they have enough water to plant three crops a year when the Kibbish is in flood, and they also engage in trade, buying grain from the Karo when necessary in exchange for livestock. The Karo also have elected elders, and choose two who are to be in charge of central decision-making at any given time. The Karo only farm, taking advantage of the Omo floods. They do not keep livestock, although they did in the past. Apparently, this year they only planted once, and anticipate food shortages. Since they also produce and sell clay pots which are used by Bume and others in the area, and since they have trade partners in Bume and Mursi, it is possible that they will be able, through these cooperative arrangements, to maintain themselves throughout the year despite the disappointing levels of the Omo.

Given the position of elders in these two groups, it is again likely that peasant associations will be organized without great difficulty. However, it is once again important to stress the problems of delegation of authority which may evolve over time, when the associations are supposed to deal with a wide range of problems and services. A general impression from the trip is that the Buma and Karo may in some ways be less able to come up with the necessary management skills than are the Arbore, Hamar and Konso. They have traditionally been least affected by government presence other than the police (this applies to the Mursi as well) except for their contacts with government in Djinka. Still, it is clear from the trip that each of the ethnic groups has a number of members who have learned Amharic one way or another, and who are used as interpreters in contacts with visiting government officials. Some of these individuals have already been chosen for training and indoctrination as political cadres.

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Part of the evolving national peasant association model is the coordination of individual associations through the election of representatives to the woreda peasant associations and the from the woreda peasant associations up to the awraja peasant association level. In addition, at the woreda and awraja levels, peasant associations within each administrative unit are represented on the revolutionary administrative and development committee of that unit. Thus, there is a venue for inputs from each local peasant association into the decision-making and management process for a given area in at least two, hopefully complementary, directions.

When this structure is in place in the project area, and when project and other inputs have been made available to strengthen the response capability of the peasant associations in this as well as in other contexts, this structure should provide a pivotal means through which members of the different ethnic groups in the area can interact over time. In this way, they should be able effectively to coordinate their needs and objectives, and an area will be provided in which they can engage in a constructive dialogue concerning inter-group conflicts of interest that may arise.

However, it must be stressed that peasant associations in the project area cannot be expected to meet all of the responsibilities which are already outlined for them from the beginning, and that the ethnic complexity of the area will most probably in turn further complicate the organizational task which confronts the associations themselves, as well as those whose job it is to create them.

The components of the project which directly address the improvement of planning, management, and evaluation capacity on the part of those involved in local government, the introduction of appropriate technologies, and the improvement of social services relate directly to the peasant associations which will be developed. The other components also center around the peasant associations at least insofar as the associations are the legal entities through which land use is allocated, and communal decisions are made about production, marketing, credit, and other production-related issues.

However, it is critical that early and coherent attention be given to the relation of all inputs to the present and future role of women in the peasant associations as well as in the societies at large. At present, the position of women in most of the groups in the project area is extremely low, with the possible exception of certain segments of Hamar. At the same time, in most of the ethnic groups, women perform the majority of the tasks in the farming cycle, as well as some which relate to the care and use of

livestock. The proportion of work carried out by women these two spheres may reasonably be said to vary from 40 per-cent to 70 percent. In most of the groups, women are allowed to inherit property, and to leave property to their children. They also have rights to use of land, although in most instances, widows allow their plots to be managed by their deceased husbands' brothers. The levirate is common throughout the area, again with some exceptions.

Although men admit that women do the vast bulk of the farming work in most groups, and while they indicate that they value women, citing the large number of cattle they pay in bridewealth, and at the birth of children, they also admit freely that women have no decision-making power, and that they should not have it. When the awraja administrator was talking to them about the creation of peasant associations in Galeb and Hamer-Bako awraja, he intentionally placed considerable stress on the position of women obtaining in the area, on the general "laziness" of the men, and on the importance of giving women additional rights and responsibilities, the men listened but were clearly not convinced. Then the same set of points was made to the women, they responded that they had heard about the new womens associations, but that they were afraid of the men, and would not know how to organize themselves and stand up for their new rights without help and instruction.

In discussions with the awraja administrator and other local officials, it was suggested that for some of the groups an effort should be made to promote intensified participation of the women, with correspondingly increased responsibilities and influence. In this and in other contexts, care must be taken to ensure an evolutionary approach in dealing with the peasant associations throughout the project, one which does not overburden the leadership or the membership as a whole with too many decision-making problems, or too many practical responsibilities. Rather, inputs should be channelled in such a way that management capability increases as income increases, with initial stress being placed on improving production in coordination with education which relates to consumption patterns and habits. Other social service aspects may be to some extent delayed so that too much is not expected too soon of too few.

6. Local Administration. One way in which such an approach may be fostered and supported is through careful coordination on the part of project personnel with the available local administrators in the project area. Woreda administrators are in place in all the woredas in question. Many of them are new, however, and some of them appear to be relatively inexperienced. Also the turnover rate is on the whole too rapid to permit in-depth acquaintance with local conditions. As has been mentioned, at least some of them have great difficulty in reaching the people in their districts because of a variety of logistical problems.

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Nevertheless, during the PRP team trip it became clear that a number of local administrators, including the *awraja* administrator for Galeb and Hamer-Bako *awraja*, were attempting to interact constructively with the traditional leaders of the ethnic groups in the area, as well as with other government officials, including representatives of technical ministries and the police, and local RRC officials. The extent of the commitment they demonstrated was impressive, as were their attempts to make themselves understood by the local people--not just the elders, but the mass of the people. Thus, there seems to be firm basis in the area for continued improvements in coordination between local administrators and the new peasant associations. The quality of interaction may be further improved with appropriate logistical support for both groups, and with a general improvement in the communications system in the project area, as well as the evolution of an information system.

While there is a growing and constructive administrative presence in the area, however, there remains a potential problem between the people and the police. When the administrative presence was less developed, and especially during the previous regime, the police were essentially the only government representatives in the project area. In some places, they were also the only venue for commercial inputs from outside the area, and the only "highlanders" who were known to the local people. It appears that, in the absence of strong supervision and coordination with other agencies, the police at some times have exceeded their mandate. They are themselves remarkably isolated, poorly paid, and cut off from the political center. In order to make their own lives somewhat more rewarding, they have apparently begun to engage in commercial trade as brokers to the local population. In other instances, they were the only resource available to the RRC for the distribution of relief goods. Thus, they have been placed in an awkward position. Their limited logistical resources are used by all officials and government employees in the area. They are allocated responsibilities which are essentially inappropriate to their management capability and training. As police and peace-keepers, they have at times been highly resented by the local population when traditional conflicts arise.

Yet it should also be pointed out that their performance has in some instances been surprisingly good given the overall situation. Of particular interest here is the fact that in some parts of the project area, individual policemen have been willing to write up in Amharic the requests, complaints, and even demands of the local people, for presentation visiting administrators, and in some instances, even for forwarding to central government in Addis Ababa

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During the life of the project, it is anticipated that the role of the police may diminish throughout the area, both because there will be an overall increase in other kinds of government presence and because the policing function will eventually be turned over to the peasant association militias. If these plans are implemented in a careful manner, it is likely that the overall quality of interaction between the government as locally represented, and the local population, will considerably improve.

What may be more critical in the long term is the extent to which the responsibilities of local administrators are at present poorly defined for the country as a whole. The Local Government Department of the Ministry of Interior, as well as the Institute of Management and Training, have attempted to formulate a program which will outline the responsibilities of local government officials in the new socialist Ethiopia, especially as these relate to those which have already been allocated to the peasant associations. However, the EPMG has not yet issued a proclamation which will clarify this situation, based on the suggestions submitted by these agencies. Nevertheless, these agencies are in the process of elaborating a training scheme for local government officials and other civil servants, part of which may be AID-sponsored.

If this project can be coordinated with that effort, it is possible that part of the gap which presently exists in the project area between the intentions of the administrators at all levels, and the ability to carry out their intentions, may be bridged during the life of the project. As with the local representatives of technical ministries, it is crucial that local administrators as often as possible be members of the ethnic groups represented in the area. Where there are no obviously eligible locals, special consideration should be given to intensive training for those who seem to best qualified, but who may not have the paper qualifications necessary for entrance into existing or projected training programs.

It is in the area of coordination between the local administrators and the peasant associations that the project may most usefully channel some of its inputs at the local level. In this way, the project may come to serve as a model for other, similar areas of the country where this coordination remains to be defined and implemented.

7. Social Division of Labor. Some of the aspects of the social division of labor which relate to other social issues have already been discussed. Those which relate specifically to agricultural production are discussed in detail in the description of the project area. Here it may be most useful to reiterate certain points concerning the social division of labor among groups in the project area, as well as within specific groups.

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With regard to traditional trade and potential commercial systems in the area, it is important to recognize the social context of trading and artisan activity. In most parts of Ethiopia, as well as in parts of the project area, those individuals who engage in handicraft production and/or in trade are often members of outcaste groups. Either the whole group engages in a particular kind of craft production--weaving, pottery, tanning, etc.--or individual members of the group become clients to individuals or families in the dominant ethnic group in the area. The situation for Konso is most like this model of those in the project area. Konso traders have been operating in the project area for a very long time, also extending into Kenya to trade with the Kenya Borana. However, it is not clear from available information whether these traders operate in their trading capacity full-time, or whether they also participate in farming or other production activities. Given the new regulations on land ownership and private investment, it is not clear what the outlet is for reinvestment of profits generated through trade. Do the Konso traders simply reinvest in more trade goods for the next trip, or are they able to find other avenues for reinvestment in Konso or elsewhere? Further, more information should be obtained concerning the relationship and background of traders vis a vis the artisans themselves. The Hauda class who are not completely integrated in the Konso community were formerly responsible for pottery-making and for weaving. However, recently the majority of weaving is being carried out by Konso farmers themselves. It is reported that there are relatively few blacksmiths, and it is unclear whether they, too, are members of an outcaste group, and they would be in other areas of Ethiopia, or whether this is a specialization which Konso are willing to engage in.

Apparently, among Konso, men do spinning, knitting, and weaving, while Hauda women make pots, and Konso women engage in farm labor along with men. The division of labor, particularly with regard to weaving and spinning appears to be changing. Attention should be given during the project to the present and future role of outcaste Hauda, particularly so as to determine whether they have been appropriately included in the peasant association structure, and whether they are being deprived of their traditional livelihood as a result of the change in the social locus of weaving.

Among Hamar, there is apparently a distinct category, the Fuga, who are the blacksmiths and metalworkers. Fuga is a term used elsewhere in Ethiopia to describe smiths, with the connotation that smiths and their families all have the evil-eye. Whether among Hamar Fuga simply means blacksmith, without this connotation, is unclear. In any event, blacksmithing seems to be important in Hamar to the extent to which it yields important trade items which are then bartered or sold to other groups in the area.

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Karo make pots, which are then sold to the Bume and the Galeb. Bume do not appear to have any crafts of their own, rather focusing on livestock production, and rather less on farming than any of the other groups in the project area. They appear to operate in a convenient relation of symbiosis with the Karo, who do not keep cattle, but emphasize farming.

Within each of the groups, farming is carried out both by men and by women. In some groups, women appear to do everything, including clearing new land, turning over the soil, planting, weeding, thinning, crop cutting, and carrying the crop from the fields. This seems to be true for Galeb. Among Hamer and Arbore, men clear and turn the soil, women plant and weed, and men and women cut the crop and carry it from the field. This seems to be true of Tsemai as well. A similar division of labor for farming seems also to apply to those Bume who farm, and, to some extent, the situation is similar in Konso as well.

Children in most of these groups have specific tasks. Girls help their mothers in carrying water and wood, and other domestic duties. But at least among Galeb, they also work in the fields from an early age. Small boys learn to herd animals, but among Hamer and Arbore and Tsemai, at least, they are also responsible for staying in the fields on platforms to keep birds away.

In most of the groups, men are primarily concerned with cattle, and move with the herds when necessary. This seems to be the sphere of concentration of young boys, young men, and adult men. Older men seem to be less responsible in the production sphere, and more in the political sphere, although some of them continue to farm. Among Bume, Galeb, Hamer, and Arbore, as well as Karo and Mursi, elders are extremely important. Among Hamer, there are particular less salient than among the Galeb and Bume.

Where there are EPID agents and health workers, it seems that there is a difference of view in the potential of involving women in new programs. In Omo Pate, the two EPID agents are emphasizing teaching women improved farming practices, since they are aware that women do most of the farming. They indicated that they had had problems at first in getting women to participate, but that the situation has now improved. They also attempt to reach adult men, since they hope to influence men to take a more active and

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equal role in farm production. Health workers, on the other hand, seem to be more interested in training men although they appear to treat more women. The Health Officer in Arba Minch, who has considerable experience in the region, indicated that for the present it was easier to involve men in training, since women in the area are not expected to make decisions or to have positions of relative power or prestige. Some missions in the area appear also to have opted for training men as assistant dressers and technicians, as well as teachers of the primary grades.

One way in which the project can address the present division of labor, and redress imbalances, is to stress the inclusion of women in training programs functional literacy programs, etc. During the trip, women in all groups were quite willing to speak up when asked and to voice opinions on a number of topics, especially when men did not interrupt. Men were most of the time willing to let the women speak on issues which were perceived as relating to women, including mother-child health, and other concerns which are defined as domestic. Further, they did not attempt to disguise the significant contribution that women make throughout the agricultural production process, although they tended to under-report the role of women with regard to livestock.

Thus, it does not seem to be necessary in this project to devise a system whereby women para-professionals must be trained to work only with women. Rather, a balance of inclusion of men and women in the various training programs associated with the project should be attained, and interaction between men and women should be encouraged in as many spheres of activity as possible.

8. Population Movements. Some mention has been made above, of the problems which may be associated with both spontaneous and planned settlement or resettlement in the project area. Generally, it is important to recognize that none of the groups in the area can correctly be described as nomadic. Rather, some of the groups practice a restricted form of limited transhumance, always returning to permanent settlements. The sites of these settlements are only changed when it is necessary to do so because of the progression of the tse-tse fly, the density of mosquitos near the rivers, or critical failures of the river flooding patterns.

Nevertheless, men and sometimes men and women do more with their cattle, often over considerable distances during the wet or the dry season, depending on the group. Further, with the introduction of irrigation channels in the Arbore and Boko areas,

as well as in Omo Rate, more major population shifts have occurred or may be anticipated during the life of the project. These movements may be defined as spontaneous, however, in the sense that the construction of the irrigation channels is based on recollections of traditional methods, is carried out by local people (with the help and direction of outsiders), and leads to voluntary movements of population. The movement of the Assile branch of the Hamar down to the recently irrigated Tulia Basin is a case in point. The movement that will be engendered if the Colon Canal fills when the Omo floods next year is a prospective example.

Among the Konso, the situation is actually and potentially somewhat different. At present, there is an organized settlement at Gato, and a spontaneous resettlement movement in the Yanda area. In addition, the Land Settlement Authority has been allocated a number of areas in Gamu Gofa province for resettlement of local population. At least some of these areas will be used to resettle Konso who do not have sufficient cultivable land. As was indicated above, some Konso may eventually be moved in to the traditionally Tsamai area between the Woito River and their present locations.

The majority of the lands which have been allocated to LSA for settlement projects are malaria infested, and are not linked to other areas by any road network. Resettlement is supposed to be in terms of the peasant association model, that is, potential settlers are supposed to be initially organized into a peasant association which is then responsible for carrying out the settlement scheme. In a number of instances, however, they do not have the resources to do this, except for their labor, and thus they come to rely on government and external sources for a wide range of inputs.

In addition, the situation in Konso is further complicated by the fact that Konso are recognized as good and thorough workers, and their labor is being increasingly used on state farms and on road projects. While this may provide an interim solution to the population pressure problems in Konso, it also introduces a number of new problems. In addition, using Konso as essentially imported labor in the rest of the project area, particularly in connection with the extension of the AID-sponsored road, may have a serious negative impact on the organization of labor in these other areas. It is important that those locally involved with the road project be made aware of the constraints which may be introduced by importing Konso into other areas, both on future development in Konso woreda and in the other relevant woredas in the project area.

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It is unlikely that the project itself can be implemented in such a way as to preclude other agencies attempts at planned settlement of the kind which leads to situations of serious or complete dependence on outside sources of requisite inputs. Nevertheless, attempts should be made at all levels to coordinate the planning and implementation of such projects with the overall goals and activities of the project. In part, this can be achieved through the coordination of project and other inputs at the provincial level, through the development officer and the provincial revolutionary administrative and development committee.

On the other hand, spontaneous resettlement movements should be encouraged and logistically supported where they will have a positive impact on pasture management, improved utilization of available irrigation and other water supplies, and human and animal health. The suggestion that large numbers of Hamer, Galeb, and Bume may wish to settle in the area which has previously been a no-mans-land between them is a case in point. Current thinking is that if sufficient water is available, and these groups agree to farm in close proximity in this area, the likelihood of peaceful relationships among them will be substantially increased. Apparently, this has already occurred in the Tulia Basin, and there is thus reason to suppose that this thinking is correct.

The matter of population movements across international boundaries has also been raised briefly above. The movement of the Galeb to Omo Delta has apparently become important as part of their survival adaption in recent years. Whether the movement of the Bume into and out of the Sudan is equally critical for their survival is not as clear. Hopefully, the results of the recent conference on boundaries and borders will clarify the situation and lead to better information gathering in the future.

9. Information. In broad terms, there is a paucity of data available concerning the demographic aspects of the project area, as well as other kinds of information which directly relate to administrative capability in the project area. For example, it was suggested by officials in Addis Ababa that one service the project could perform was the detailed mapping of the area in terms of the administrative boundaries, land use patterns, and population concentrations of the area.

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At the local level, there is a need for the generation and analysis of a variety of kinds of information. Each decision-making level requires different kinds of information. The individual farmer will need certain kinds of information in order to make basic decisions about production. The peasant association will require some of the same information, as well as a number of other kinds of information on its members and on various topics relating to the fulfillment of its various obligations to the community and to the country. The woreda administration--here defined to include the woreda administrator, and the woreda revolutionary administrative and development committee in addition to the woreda-level peasant association will need these kinds of information as well as more sophisticated and aggregated information. The same will be true at the awraja and provincial levels. The degree of inclusiveness or exclusiveness of information requirements at each level, and across relevant groups at each level, will have to be determined throughout the life of the project.

What is crucial is that the local population, both individually and collectively, be directly involved in information collection and analysis. While there are problems which will have to be dealt with if this is to be achieved, there does appear to exist the basis for a capacity to generate and analyze information within the peasant association context. As has already been noted, in the process of forming peasant associations, certain basic information on members and land have already been collected, with the help of officials from Land Reform and Settlement. Further, for all of the groups in question, there are some individuals who are functionally literate in Amharic as well as some others who can speak Amharic although they cannot read or write. Thus, there is a basis for building up a marginal capability within the peasant association structure for the gathering of information. It is reasonable to suppose that with some help, the peasant associations will also come to be able to analyze this information so as to be able to use it effectively rather than simply forwarding it to the previously appropriate government officials or agencies.

It has also been noted above that improvements in the availability of information to the people themselves should lead toward improvements in inter-group relations. If, for example, there is good information both about the quality of grazing land in a given area, and about the intensions of the various neighboring groups to use it, it may be possible for the leaders of these groups to agree about timing, numbers of animals, and other issues which may arise. There are enough individuals--including

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traditional leaders--who understand the languages of groups other than their own for this to be a realistic possibility. It is not the case that the ethnic groups in the project area are completely isolated from each other. Rather they appear to be lacking mechanisms for inter-group communication and consensual decision-making. There is a demonstrated willingness to cooperate across ethnic groups which may be turned into an ability to do so partly through the generation and exchange of good and timely information.

At the higher levels of inclusion--the awraja, the province, and the nation basic information and conclusions that can be drawn from its analysis should assist government and other agencies present in the project area to better coordinate inputs. As has been mentioned, the project inputs which relate to data collection, functional literacy, and other improvements in social services can be linked to data collection for the health and nutrition early warning system, as well as to the projected program for non-formal education in the area. In addition, however, good information which flows throughout the system should improve the probability that the activities of any one group or agency will be both based on correct information and at the same time be structured in terms of the activities of others. At the provincial level, this will lead to the better programming of resources and services throughout the area. At the national level, it should foster coordination in planning for this and other areas.

Insofar as the people themselves are involved in data collection, the quality and timeliness of data generated should improve so that the kinds of problems which occur when over-extended officials and technicians are asked to collect additional information outside their direct areas of concern will be obviated. Involvement of the people should also assist the process through which information will flow through the system and a feedback loop can be created by means of which information will be consistently and constantly corrected and amended.

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5. FEASIBILITY ISSUES

The Social Soundness Analysis examines in detail the social issues that may affect the successful development and implementation of the project. However, it should be noted that these issues combined with the PRP team's analyses of the project area's economic and political/administrative systems provided the basis for the project's overall design. There are several other conceptual issues that deserve comment.

First, can the project succeed when it is so heavily dependent on the capabilities of local government officials and the peasant associations? The answer to this is that one main aim of the project from the viewpoint of both the EPMG and USAID is to test to what extent and in what ways these capabilities can be developed. Even though there is a heavy reliance on the local Ethiopian structure, the project requires only a marginal expansion of staff. Moreover, there appears to be a strong commitment by the EPMG to work in areas that have been neglected. Problems will only occur if this commitment is reversed and officials are removed from the area.

The second question is whether technologies for improving production can be developed that are superior to what farmers are currently doing. This question must be answered with the project's experimentation. However, an overall consideration in the development of new technologies will be to identify those that entail a minimum of risk and can pay for themselves in a time period perceived by the farmer himself. Considerable experimentation may nevertheless be required before appropriate and acceptable technologies are found. The initial returns from the project will therefore come more from the increased land under irrigated cultivation.

The third issue involves the environmental effects of project activities. The issues relating to the human environment have already been covered. As regards to the physical environment, the project will attempt to introduce land and water use patterns that protect natural resources of the area. Significant amounts of technical assistance have been built into the project for the purposes of planning and doing assessments of individual water resources development activities. While the project will not introduce any chemical fertilizers or insecticides into the area, MPP activity associated with the project may do so and this will require analysis. Other actions such as range management will hopefully reverse the rapid deterioration of the land brought about by the drought. Nonetheless, the effects on the physical environment will be closely monitored. A full environmental assessment will be made in the PP.

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Fourth, there is the question of whether USAID can operate effectively in the area in light of EPMG sensitivities and the changing political administrative system. In terms of policies and actions, as was pointed out early in the paper, there is a high degree of consistency between AID's new directions and the EPMG's development priorities. As to working specifically within Gemu Gofa Province, the PRP team posed directly the question of political sensitivities to provincial officials, including the one responsible for political direction. Their response was that there would be no problem as long as the Americans were sensitive to, and worked within, the Ethiopian system -- a request that should be respected in any country in which AID wishes to work.

In sum, we are satisfied that these conceptual issues are adequately addressed in the proposed structure, style and selection of objectives for the project. There are additional operational issues, however, which must be carefully analyzed much further and in more detail in the preparation of the PP and in the implementation process. These are listed in the Introduction and Summary and are only summarized here, viz.

- allocation of specific funding responsibilities between the project and other government development programs (MPP, rural roads, etc.).
- number, level, and pace of development activities to be introduced into the project area over the three year period.
- need for outside TDY expertise as opposed to in-country sources.
- source and structure of financing for local self-help infrastructure activities.
- possible funding of the appropriate technology elements of the project from AFR regional funds.
- criteria for recommending follow-on assistance after the three year project period.

Resolution of these matters in the PP should result in a tighter project proposal, with sharply delineated objectives and criteria for evaluation (i.e., an improved Log Frame) and an effective management system for AID inputs.

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6. COORDINATION WITH OTHER DONORS

Detailed discussions were held with all missionary and voluntary groups operating in the area to ascertain their programs and future plans. The findings from these discussions have been incorporated into the Project Description. The continuation of these privately financed activities will be of great advantage to the project, though it is clear that the coordination of these activities in a larger woreda, awraja and/or province administrative structure will call for adjustments by both the donors and the government to overcome the present largely ad hoc and independently programmed set of activities in the region.

Other government or international donors operating in the province, whose activities will dovetail with and help promote project objectives are:

- CIDA support (technical experts and financial aid) for a southern regional water resources office of the Ministry of Mines, Energy and Water Resources. This office, based in Awassa, will provide expertise and carry out programs in water development in the project area.
- WFP supply of commodities and management assistance for food-for-work programs directed by the RRC.
- German provision of volunteers.
- UNICEF rehabilitative foods and medicines to voluntary agencies and government.

Other international donors will be contacted regarding their interest in the project area.

There is one option that will be explored further by the EPMG and USAID, and should be explored in Washington by AID. Provincial officials expressed considerable interest in having the Peace Corps involved in the project. Because of their past and current work in the province, they are well-respected by local officials and the population. Their assistance would be most valuable in supporting the EPID centers in Delbena, Omo Rasti and Kora and in assisting the Appropriate Technology Center at Delbena. The skills requirements would be three agriculturalists and an intermediate technology specialist. Ideally, the volunteers should have prior experience overseas, perhaps with the Peace Corps in another country.

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7. FINANCIAL PLAN

The following tables represent the Financial Plan for the project;

Total Project Funding by General Output by Year;

Summary Cost Estimate and Financial Plan;

Costing of Outputs and Inputs;

U.S. Funded Inputs: Obligation Schedule.

The final table, Proposed Project Development and Pre-Implementation Budget, shows the costs for preparing the PP as well as for carrying out pre-implementation activities as are explained below in the Project Development Schedule. Preparation of the PP will begin in January 1977 so the required \$99,120 for project design should be authorized as soon as is feasible. The pre-implementation phase will begin in June 1977 and will require \$163,480.

Annex E presents a detailed cost breakout.

TOTAL PROJECT FUNDING BY GENERAL OUTPUT BY YEAR

<u>U. S. Funding</u>	<u>FY 1978</u>	<u>FY 1979</u>	<u>- FY 1980</u>	<u>Unit US \$ Total</u>
1. Output #1 *	307,185	167,400	107,400	581,985
2. Output #2	365,220	160,500	160,500	686,220
3. Output #3	145,740	110,350	78,750	334,840
4. Output #4	274,000	267,500	267,500	809,000
5. Output #5	43,400	28,200	33,000	104,600
Sub Total	1,135,545	735,950	647,150	2,516,645
Inflation **	98,555	112,128	147,560	358,243
Contingency ***	147,832	80,093	67,073	294,998
TOTAL U.S. FUNDING	1,381,932	926,171	861,783	3,169,886
<u>Host Country Funding</u>				
<u>A. EPMC</u>				
1. Output #1	97,200	97,200	97,200	291,600
2. Output #2	96,600	96,600	96,600	289,800
3. Output #3	10,000	15,000	49,000	74,000
4. Output #4	147,000	147,000	147,000	441,000
5. Output #5	47,000	51,000	55,000	153,000
Sub Total	397,800	406,800	444,800	1,249,400
Inflation **	59,670	130,176	231,296	421,142
Contingency ***	59,670	61,020	66,720	187,410
EPMC Total	517,140	597,996	742,816	1,857,952
<u>B. Farmers</u>				
1. Output #4	180,000	252,500	267,500	700,000
HOST COUNTRY TOTAL	697,140	850,496	1,010,316	2,557,952

* Corresponds to "Outputs" A through E in other parts of the text.

** U.S. funding inflation calculated at 10% per year compounded;
EPMC inflation calculated at 15% compounded.

*** Contingency for U.S. and EPMC calculated at 15%

SUMMARY COST ESTIMATE AND FINANCIAL PLAN (Unit: US\$1,000)

	<u>AID</u>		<u>Host Country</u>		<u>Total</u>		<u>Total</u>
	<u>FX</u>	<u>LC</u>	<u>FX</u>	<u>LC</u>	<u>FX</u>	<u>LC</u>	
1. Technical Assistance							
a. Long Term	298	-	-	-	298	-	298
B. Short Term	898	-	-	-	898	-	898
2. Training	20	23	-	-	20	23	43
3. Vehicles	228	-	-	-	228	-	228
4. Other Commodities	108	108	-	-	108	108	216
5. Construction	-	379	-	-	-	379	379
6. Other Costs	-	558	-	-	-	558	558
7. Development Fund	-	550	-	-	-	550	550
8. Staff	-	-	-	1,127	-	1,127	1,127
9. Recurrent Budget	-	-	-	731	-	731	731
10. Labor & materials	-	-	-	700	-	700	700
TOTAL	1,552	1,618	-	2,558	1,552	4,176	5,728

* Will require waiver for non-U.S. vehicles.

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COSTING OF PROJECT OUTPUTS/INPUTS

(Unit US\$1,000)

<u>PROJECT INPUTS</u>	<u>PROJECT OUTPUTS</u>					<u>Total</u>
	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	
<u>U.S.</u>						
1. Technical Assistance	429	495	153	58	61	1,196
2. Training	16	20	7	-	-	43
3. Commodities	113	212	40	80	-	449
4. Other Costs	213	189	249	759	80	1,486
<u>Host Country</u>						
<u>EPHC</u>						
1. Staff	173	275	48	489	142	1,127
2. Recurrent Budget	258	154	69	164	86	731
<u>Farmers</u>						
1. Labor & materials	-	-	-	700	-	700
TOTAL	1,202	1,345	366	2,250	369	5,728

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U. S. FUNDED INPUTSOBLIGATION SCHEDULE

(Unit U.S. \$)

<u>Cost Components</u>	<u>FY 1978</u>	<u>FY 1979</u>	<u>FY 1980</u>	<u>Total</u>
<u>Technical Assistance</u>				
Long Term	112,500	75,000	37,500	225,000
Short Term	285,000	202,500	180,000	667,500
<u>Training</u>	11,500	11,500	8,900	31,900
<u>Commodities</u>				
Vehicles	182,400			182,400
Miscellaneous	84,495	39,000	39,000	162,495
<u>Other Costs</u>				
Construction	166,000	52,500	67,500	286,000
Miscellaneous	127,150	136,950	112,750	376,850
Evaluation	16,500	16,500	1,500	34,500
Development Fund	150,000	200,000	200,000	550,000
Sub-Total	1,135,545	733,950	647,150	2,516,645
Inflation	98,555	112,128	147,560	358,243
Contingency	147,832	80,093	67,073	294,998
TOTAL	1,381,932	926,171	861,783	3,169,886

* Will require waiver for non-U.S. vehicles.

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PROPOSED PROJECT DEVELOPMENT
AND
PRE-IMPLEMENTATION BUDGET

(Unit: U.S.\$)

	<u>Project Development</u>	<u>Pre-Implementation</u>
1. <u>Technical Assistance</u>		
a. Rural Development Specialist	30,000 (4 mo)	30,000 (4 mo)
b. Information System Development	15,000 (2 mo)	
c. Hydrologist/Irrigation Specialist	15,000 (2 mo)	
d. Arid Land Farming Expert (Production Agronomist)	7,500 (1 mo)	
e. Animal Health Specialist	7,500 (1 mo)	
f. Health/Nutrition Specialist	7,500 (1 mo)	
2. <u>Commodities</u>		
a. Vehicle	12,000	
b. Camping Equipment	1,000	
c. Office Equipment & Supplies		15,080
d. Miscellaneous		3,000
3. <u>Training</u>		
a. Short-Term Observation		3,900
b. In-Country		3,000
4. <u>Other Costs</u>		
a. House Construction		40,000
b. Low-Cost House Construction		15,000
c. Provincial Development Fund		50,000
d. Conduct of Soil & Water Survey	3,000	
e. Vehicle Maintenance & Driver Salary	1,120	
f. Secretarial Salary		3,000
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TOTAL	99,120	163,480

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8. IMPLEMENTATION PLAN

The administrative arrangements for this project are basic to the project's design and have already been discussed in the Project Description, with assessments of the roles of the primary agencies and their abilities to perform them. In sum, the Project Agreement will be signed with the Relief and Rehabilitation Commission with the implementing agency being the Provincial Revolutionary Administration and Development Committee, chaired by the Provincial Administrator. The Committee will have broad policy and programming responsibilities, while a Provincial Development Office is to be formed and will perform the planning, management and evaluation responsibilities. On the EPMG side, the main pre-implementation action will be to establish this office.

It is currently envisioned that funding will be channeled to the special account established for the project; funding will be allocated on the basis of semi-annual plans plus an acceptable audit of previously appropriated funding. The establishment of the special account will require a letter of authorization by the Ministry of Finance once the project is approved. (Funding procedures will further be defined and clarified in the PP).

Periodic evaluations, made jointly by EPMG and USAID, will take the form of seminars at months 12, 24 and 36; also in-depth evaluations will be conducted in months 18 and 30. These evaluations will allow the EPMG and USAID to assess and modify the project design as required. The network for this project may be found in Annex D.

USAID Director/Addis Ababa will be responsible for the management and evaluation, with this function being performed by the Mission's current staff. To provide the technical assistance for the project, a contract will be signed with an institution that has experience in the implementation of rural development projects. The key individual under this contract will be the Rural Development Specialist who will provide assistance to the Provincial Development Office. This person must have a background in the planning and evaluation of rural/agricultural development projects, at least four years experience in managing a development project in areas where minimal amenities are available, and a knowledge of African farming systems.

9. PROJECT DEVELOPMENT SCHEDULE

The preparation of the Project Paper will begin the process of project development. In addition to gathering the data for finalization of the PP, the design team members will begin the process of providing technical assistance. On the completion of the PP, there will be a requirement for funds (see Financial Plan) for a pre-implementation period.

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There are several reasons for this approach. First, the Mission perceives project development as an evolutionary process, and this approach will allow the Mission to continue its ongoing interaction with the provincial administration. Secondly, the Ethiopians in the project area have been deluged with study teams but with few results; the preparation of the PP and the pre-implementation phase will provide opportunities for helping government officials solve immediate problems and for them to see immediate result in the form of development action. Thirdly, there is a need to help EPID set up its initial crop demonstrations prior to the rainy season so that another year is not lost before systematic testing is done in the project area. And fourthly, the pre-implementation phase will allow the EPMG and USAID to set up and test the proposed administrative arrangements before the project is approved; this is especially important in light of the experimental nature of the project.

The proposed schedule is as follows:

PRP submitted	December 6, 1976
PRP approved	January 15, 1977
Land Use and Water Survey (to be performed by the PP team's rural development specialist, hydrologist, & provincial staff(* Agronomist and livestock specialist arrives to prepare technical analyses and assist EPID/Ministry of Agr.	March 1977
Health/Nutrition specialist arrives to assist in PP preparation and assist Provincial Health Office	April 1977
Completion of PP	May 1977
Preparation of detailed plan for Pre-Implementation Phase	June 1977
Pre-Implementation Phase Begins	July 1977
Project Authorization	August 1977
Project Agreement Signed	October 1, 1977

- * Rural Development Specialist to be hired under personal services contract 6-9 mos. beginning February 1977, all other PP and pre-implementation specialists obtained under IQC.

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ANNEX A

FARMING SYSTEMS IN THE PROJECT AREA

Farming System

-2-

I The Konso Woreda (Hillside Farming)

Within the Konso Woreda the actual differences or deviations from the following description are of magnitude and not form. These differences can be grouped as follows:

- within local units (villages and towns) - differences in agricultural inventory are relatively small owing to built-in societal balancing devices that tend to equalize differences in wealth. Some minor differences in crop mix do exist, depending on the experience of the farmer, availability of seed, and the particular preferences of each farmer.
- between local units - the differences in agricultural inventory are more pronounced but are due to local variations in rainfall, length of cultivation of the fields, and minor soil differences.

To a small extent floodplain farming is practiced by the Konso but this seems to be a recent phenomenon spurred on by the drought conditions, declining soil fertility in the highlands, relative security from raiding tribes, as well as an acceptance of the risks of malaria on the floodplains. This type of farming will be explained in the next section.

A. Inventory of Farm Assets

1. Land Tenure - Land appears to be distributed on the basis of need as manifested by family size, as well as traditional family rights to land dating back to when the land was originally cleared. Nevertheless, land must be worked in order that usufruct rights be maintained. In some cases, however, unused land is rented to someone desiring to farm it. There is evidence that this traditional system is breaking down in areas where knowledge of the land reform exists. Additionally, there are cases where land is sold (more a form of extended rental) but the original owner retains the right to buy it back for the sale price. It also appears that this mechanism is being used less and less due to the land reform. Land holdings appear to be highly fractionalized with parcel size ranging between one-fourth hectare and two hectares. Total holdings appear to be less than four hectares.

2. Land Quality - Two characteristics concerning Konso lands stand out with particular prominence. The first is the extremely rocky nature of the soil which forces the farmers to literally 'farm between the rocks.' The amount of rocks leads, however, to the secondmost prominent feature of Konso agriculture, the elaborate and extensive terraces that have been built over the years from stones collected in the fields. These terraces, plus the piling of crop residues along the edge of the terraces, protect the fields from erosion as well as trapping scarce water.

Much of the land close to the villages has been cultivated for up to 200 years. Recently, however, various factors have led to a decline

in fertility serious enough to prompt a desire on the part of the farmers to abandon their traditional homes and fields and migrate to nearby flood plains. Several reasons have led to this decline in fertility: population pressure resulting in shorter fallowing periods, the drought which has forced the people to sell much of their livestock, resulting in less manure for the fields, and a fear of inter-tribal raiding which has resulted in the abandonment of outlying fields.

3. Labor - All family members except the sick, lame, and very old partake in the farming activities. The Konso men, as opposed to other groups in the Gemu Gofa region, spend most of their time in their fields and are noted throughout the region as hard workers. Maintenance of terraces and land preparation are the exclusive domain of men whereas women help in planting, thinning, weeding and harvesting when water and firewood gathering, child raising, and culinary chores permit. The collection of manure for fertilizer is the sole responsibility of women and the tending of flocks and herds that of young men and boys.

4. Equipment - Agricultural tools consist of double-pronged hoes, rudimentary digging sticks, axes, and knives for harvesting sorghum. Oxen and their related equipment are not used due to the steepness of the fields and the somewhat delicate nature of the dry stone terrace walls. Where the Konso have taken up farming on the flood plains, oxen have been introduced with some success.

5. Grain Storage - Grain storage among the Konso consists of rudimentary cow dung and straw vessels. Ashes are sprinkled throughout the grain to repel insects. Nonetheless, up to 50% of stored grain is lost to vermin and weevils.

6. Fencing and Other Agricultural Structures - Fencing is generally used to 1) keep animals out of cultivated areas these consist of thorn-bushes and cactus plants; and 2) to safeguard animals at night; consisting of heavy branch, log and thornbush enclosures near or in the living compound.

The Konso are also known for their beehives and honey production. Many farmers keep bees and have between 15 and 100 hives. The hives, however, are sealed structures made from straw and cow dung, necessitating complete destruction of the comb during honey extraction.

B. Inventory of Farm Outputs

Due to the lack of uniform land measurement, planting rates, the gradual harvesting of crops, and the miniscule amount of produce that enters marketing channels, specific crop yields were impossible to obtain. About all that can be said is that yields in the past have been higher but have declined recently due to scanty and erratic rainfall and declining soil fertility.

1. Sorghum - This is by far the major crop of the area due to the traditional tastes and experience of the people. Its adaptability to drought conditions and its characteristic to "ratoon" and provide two harvests also account for its importance. Under normal conditions the first harvest can be expected to provide between 70-80% of the total harvest. However, due to the lack of rainfall this year, the first crop was almost a total loss. During project preparation unexpected late season rains promised to make the second "ratoon" crop a success. Due to the aforementioned lack of information on yields, only very uncertain comparisons with past years can be made. An examination of grain stores suggested that there had been a very slim harvest so far this year.

The harvested grain is stored on the panicle until needed for consumption, at which time it is threshed out by hand and ground, using either a stone mortar and pestle or the newly introduced diesel-powered mills. (As of project preparation there were 10 such mills in the Konso area, one of which is completely cooperative-owned.) The flour is then prepared into doughy balls for immediate consumption, or left to ferment for one or two days at which time it is made into "beer," essentially a non-alcoholic porridge.

2. Cotton - This is the only crop in the Konso area which could be termed a commercial crop. Production for the most part is unorganized, with plants dispersed throughout the sorghum fields. It should be noted that no fertilizers, insecticides, etc. are used. Seeds are sometimes planted intentionally, but for the most part are allowed to come up as "volunteers" under mature plants. On an average, plants are allowed to mature for two years or until they have become woody and production drops. Since seeding takes place over a large portion of the year, the harvest season is also quite extended. This practice results in two distinct benefits. The first is that it makes it very hard for insect vectors to establish themselves (as evidenced by an almost complete lack of any diseases on fields where insecticides are unknown.) The second is that it allows for the crop to be harvested at a pace that is in harmony with the cotton cloth industry of the area.

Although the entire cloth production process in Konso is performed by manual labor, it results in a high quality cloth recognized throughout Ethiopia. As the cotton bolls become ripe they are harvested in small quantities of about one pound. It is then ginned by rolling out the seeds on a flat rock with an implement about the size and shape of a large knitting needle. Thread is then spun by men and boys using a traditional "drop spin" system. The full spindles are then sold or traded to weavers who turn them into cloth on rustic manual shuttle looms. This process is carried out over a large part of the year. If the cotton production process were changed, resulting in the harvest coming due at one time, serious storage problems would result, as well as major sociological disruptions in the production process of cloth.

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The cotton varieties of the region appear to be highly resistant to dry conditions as the plants survive through periods that greatly damage the sorghum. This might be a further advantage to the production practice which allows the plant to mature over two years resulting in very deep and extensive root systems.

3. Other Crops - Farmers also occasionally intercrop several types of beans and pidgeon peas throughout their fields to provide some variation to their diet. At least two types of trees are planted around the fields and villages from which the leaves are harvested for food. Other vegetables and fruits are unknown to the Konso, although a very small demonstration plot at the Norwegian Mission has shown that cultivation of these might be possible.

4. Livestock - At the present time the Konso people cannot be considered herdsmen to any degree. Nevertheless, a few cattle are kept numbering approximately one-two per ten people, or 7,000-14,000 head for the area. Past information seems to indicate that up until the drought cattle had a much more important place in Konso society. Due to the drought, however, it seems that the cattle have either been sold off in order to purchase grain, or have died from disease (trypanosomiasis, rinderpest, etc.) as a result of inbreeding and increased susceptibility due to poor nutrition. It is also probable that tsetse flies are spreading into the area.

Some goats and sheep are also kept however, herds seem to be small for the same reasons as mentioned above. Mules and donkeys are not kept because of tsetse flies.

Fowl are not kept for consumption purposes but for the ritualistic use of their feathers. Hogs are not kept for traditional religious reasons.

Cattle, sheep, and goats are generally either traded to other families or sold at the various markets throughout the area. Sheep and goats are also often sold to the police or other government workers in the administrative centers.

Livestock is grazed wherever grass or other edible brush is available and then brought back to the safety of the village compounds at night.

C. Breakdown of Use of Farm Production

In general, crops are not cultivated, nor livestock raised, for the purpose of trade but for subsistence and prestige. However, surpluses do exist and needs do arise which result in exchanges of agricultural products either for cash or commodities.

Seven of the Konso communities hold market days on different days of each week where both animals and grain are sold and bartered. Some small items, including cloth, are sold for cash, but this seems to be minimal. There are also traveling traders who visit the villages from time to time exchanging grain for cloth and animals.

Honey is sold to townspeople for the making of the alcoholic beverage tej. Honey is extracted from the hives as they become full. This usually occurs after the local flora has been in bloom for a while. Due to the recent drought conditions resulting in much less flora in bloom in the region, honey production has greatly declined.

D. The Farming Cycle, Operations and Labor Utilization

The farming cycle of the Konso area is wholly dependent on the first heavy rains of the year. These usually fall through the March to May period. As soon after the first heavy rains as the farmers view as adequate, land preparation begins. This activity, performed by the men, is accomplished by the use of a double-pointed short-handled hoe. As soon as the soil has been broken up, the sorghum seed is broadcast over the field (if cotton or other crops are to be interplanted, those seeds are also broadcast at this time).

As the seeds germinate, some thinning may be performed by the women, but this activity is minimal due to the broadcasting method. As the crop grows, weeding is performed by the men and women alike as they pass through the fields in a fairly unsystematic activity. However, since most of the fields have been under cultivation for many years, weeds do not represent much of a problem.

The heavy rains usually subside during the beginning of June, with the next three months being quite dry. Before the crop reaches maturity, manure - which has been collected by the women during the year - is carried to the fields and applied to the crops. However, in recent years due to the decreased herd size, this practice is being performed less and less. Some composting is also performed but there is so little refuse produced by a village that this practice causes minimal benefits.

From June until the harvest is completed birds become a severe threat to the crop. Children have traditionally been given the task of bird scaring and must remain in the fields from sunup to sundown until all grain has been harvested.

The harvest begins in early July and normally lasts until August. Men usually cut the stalks at the base of the plant and then remove the panicle from the stalk. The stalks are then placed at the edge of the terraces to further prevent soil erosion and the panicles are carried home to be stored.

Storage vessels are for the most part made from cow dung and straw and are of a 4-5 bushel capacity.

After the first harvest the land is again prepared, hopefully just as the second lesser rainy season begins in September. Land preparation at this time consists of a general cultivation around the sorghum plants as they begin to "ratoon." Weeding, cultivating, and bird scaring then take place as with the first cycle with the crop being harvested from December to January.

Between January and March fieldwork consists of maintenance of the terraces.

Whenever required, communal work groups of men perform certain agricultural tasks. These are usually bringing new land into cultivation, brushing and terrace building.

E. Systems of Land Utilization

Because land rights may be lost if the land is not utilized, and because of the serious scarcity of fields, the practice of fallowing is becoming increasingly rare. Indeed, only in the case of illness or the threat of attack by raiding groups are fields left idle. Additionally, since crops are inter-planted the idea of crop rotation is not practiced.

The Konso Woreda (Floodplain Farming)

Within the Konso Woreda there exist several groups that either spontaneously or under government supervision have taken up farming on the floodplains of the Sagan, Gato, and Delbena rivers. To date their agricultural practices have not been well defined. They grow sorghum and corn, and utilize the practice of "follow the river," planting along the river's edge as it recedes. This practice is also followed by the Hamar and Geleb peoples and will be explained in detail in that section. The only possible distinction involved in the practices of the Konso lowlands is the initial and potential use of oxen for plowing. During project preparation the team visited several fields where farmers had already begun using oxen. These were, however, poorly trained and the yokes and plows were very rustic. Nevertheless, an excellent potential exists for the introduction of oxen into this area, as well as into other floodplain areas of the project. In the Yanda and Gato areas there are good possibilities for the introduction of camel plowing.

II The Hamar (Upland and Floodplain Farming)

The Hamar are mainly an agricultural transhumant people who also depend greatly on their livestock for prestige as well as economic security. Within Hamar there exist two general agricultural systems, the upland and the floodplain. Both are inter-related and interdependent, supplying the

people with agricultural products over different times of the year. Since the two systems are dependent, as well as being derived from the same root, they will be explained together, pointing out the differences and similarities. It must be noted from the outset, however, that the present conditions observed by the design team were the result of atypical conditions (drought) on the one hand and the recent construction of a diversion canal on the Waite River allowing the Tulia Basin to fill, providing the Hamar with greatly increased water supplies. How the people will adjust when normal weather conditions return and/or they have become accustomed to the presence of more water in the Tulia Basin remains to be seen.

There are two other ethnic groups in the area: the Arbore and the Tsimai. The Arbore farm and maintain their herds much the same way as do the lowland Hamar. The Tsimai on the other hand have both upland and lowland farmers and both groups cultivate similarly as the Hamar.

A. Inventory of Farm Assets

1. Land Tenure - Land in Hamar is distributed according to age old traditional patterns based on need. Since hired labor is unknown, the land holdings of a family are necessarily limited to what can be worked by family labor. Aside from the traditional family plots, common lands also exist. If family size grows, or if a farmer feels particularly ambitious, he may request from the "elders" that an additional parcel of land be granted to him for the season.

Land tenure rights over grazing lands appears to be tribal with any individual being able to graze his herds wherever grass exists.

2. Land Quality - As with the lands in most semi-arid regions, land quality depends mostly on rainfall and/or access to water. Since prehistoric times the highlands have received a greater amount of rainfall than the lowlands. The resultant increased vegetation in the highlands has, over the years laid down a far deeper soil horizon than in the lowlands. This can be evidenced by the fact that plots in the highlands can be cultivated for up to six years before the farmers must move on. In the lowlands plots must be shifted every two years.

Generally speaking, given the quantity of land available, plus the land's ability to recover or return to a fertile state after some years fertilizers will not be needed for some time to come.

3. Labor - All family members partake in agricultural activities, however, in relative terms the men perform far fewer activities than in other societies. The chores of the men consist mainly in land clearing and preparation, fence and stockade construction, herding cattle, harvesting grain, and security. The women perform all the other activities.

4. Equipment - As with the Konso the inventory of agricultural implements among the Hamar is very limited. Digging sticks (often without metal points), knives, axes, and some hoes make up the entire inventory.

5. Grain Storage - Clay and stick vessels placed on platforms or in trees comprise grain storage among the Hamar. These vessels are adequate when first built but tend to decompose rapidly under the rain and hot sun. Nevertheless, the Hamar being semi-pastoral and able to use their livestock as a source of food, have traditionally been accustomed to doing without grain for certain periods during the year. This practice has resulted in the Hamar giving grain storage minor importance.

6. Fences and Other Agricultural Structures - As with the Konso, fences are of two types, those that keep the herds away from the crops, made from thorn bushes, and corrals in which the herds are kept at night to protect them from raids and wild animals. A few holding corrals where animals are inoculated have also been built at government request but these are minimal.

B. Inventory of Farm Outputs

The same problems of yield measurement that were mentioned for the Konso also pertain to the Hamar. On the whole it seems that production in recent years has decreased due to the drought but even the crude impressions that were arrived at in Konso by inspecting grain stores were unavailable due to the temporary nature of storage bins in Hamar.

1. Sorghum - This crop again is the preferred grain. It is cultivated by the Hamar for many practical reasons: 1) a wide variety of types exist that are adapted to different conditions of soil, temperature and water availability, 2) it is the most ancient crop grown in the area and the people's experience is accordingly greatest in respect to this crop, 3) Sorghum has definite nutritional values, 4) the people's taste preferences in terms of dishes is most developed in terms of sorghum, and 5) in the highlands sorghum is capable of producing two and even three crops from one planting.

The relative importance between the first and second crops is quite variable depending on the rains. However, when several seed varieties having varied traits are planted, one of the varieties and one of the crops will almost always provide enough for subsistence in the highlands.

Due to the lower amount of rainfall in the lowlands, the range of options is not as great. Only one harvest of sorghum is possible, giving rise to the great interest on the part of the Hamar in irrigation.

2. Corn - This crop is predominantly grown in the lowlands in spite of requiring more water than sorghum. Its main drawback in the highlands is that it does not produce a second crop. Nevertheless, its advantages, including resistance to attack by birds and its greater palatability when fresh, make it an acceptable crop in the lowlands where only one harvest can be obtained anyway.

3. Other Crops - In this category are beans, squash, sweet potatoes, tobacco, red peppers, and cotton. Beans are particularly important in that, due to their relatively short growing season, they allow the Hamar to subsist through the weeks before the first sorghum harvest. Cotton is grown at the rate of only one or two plants to the acre and is used only for thread making.

4. Livestock - Cattle, sheep and goats are kept by all groups in the Hamar area. While the cattle are all of the Cebu variety, there seems to be variations between the cattle of the uplands and those of the lowlands. True to genetic adaptation, those of the uplands have short legs and darker hides, whereas those of the lowlands have long legs and lighter hides.

Sheep thrive best in areas where the pasture is good throughout much of the year. They also do not cover as long distances as either cattle or goats and must be close to a source of water.

Goats, in terms of numbers, vastly dominate the herds of the Hamar. Due to the generally dry conditions in the region, goats are the best choice for survival and over the centuries the Hamar have become excellent goat herdsman.

C. Breakdown of Use of Farm Production

With the exception of goats, most agricultural products are traded within the Hamar area from the highlands to the lowlands and from north to south, depending on the relative surpluses and scarcities that develop during the year. Goats are normally traded to the north through Jinka.

Honey is also traded out of the area, mainly as a result of the harvesting of wild beehives. No man-made hives are kept.

D. The Farming Cycle, Operations, and Labor Utilization

As was true for the Kenzo, the production cycle of Hamar agriculture is dependent on the coming of the first rains in early March. Before this, however, the lands must be prepared. In the highlands, if the land has been used the previous year, preparation consists of merely removing any weeds and old stubble from the fields. If, however, last year's lands

are deemed to be losing fertility, new lands will be selected and the traditional process of slash and burn is undertaken. The brush is cut, allowed to dry, and the field is set on fire as the clouds of the first rain approach, presumably to ascertain that the fire can be put out in case it threatens to spread to the surrounding tinder dry vegetation.

On the lowlands along the river the same practice is followed with the dense vegetation immediately at the river's edge. Due to the dry conditions, on the floodplains no slash and burn is necessary and the fields are merely cleared of any trash. Land preparation is carried out by men, often working in communal groups. In the highlands the planting begins after the first rains, with the work being carried out by the entire family. The Sorghum is planted in hills evenly spaced 18-24 inches either way. Indeed the spacing is done so carefully that one is given the impression that it was not done by hand. An amount of seed (estimates varied from 20-40) is placed in each hole which has been opened with the digging stick. The seed is then covered by another member of the family. As has been stated before, several varieties are planted to each field, the range being greater in the highlands. A few days later the field is inspected and any hills that do not contain germinated seed are replanted.

Several weeks later thinning is performed by the women, leaving an average of ten plants per hill. In terms of accepted "developed" agronomic practice the thinning is done too late and far too many plants are left in each hill. However, care must be exercised in recommending changes in farming practices since their methods have allowed them to survive in the past.

Throughout the growing season weeding is performed by the women. Great care is exercised in this operation in terms of work effort, but the tools used leave much to be desired in terms of efficiency.

As a result of slash and burn in the highlands and river flooding in the lowlands, fertilization has never been used by the Hamar. Manure seems to go unused in the uplands and is burned in the lowlands to repel mosquitoes and tsetse flies.

Farmers select seed varieties that appear to be resistant to disease but utilize no insecticides. Major plagues that devastate crops do not seem to be a problem.

As the crop begins to ripen birds become a major threat to the crop. Children are used to scare them away by the use of a whip-like stick on the end of which is placed a ball of dried mud. With a flick of the wrist the mud is sent flying across the field, scaring and sometimes killing the birds.

Due to the use of many seed varieties the crop ripens over approximately six weeks. This in fact becomes an advantage since the labor requirements for the harvest are somewhat lessened. Both men and women take part in the harvest but still the labor can be in short supply. This factor should be taken into account in any development scheme that might propose the adoption of a standard variety and/or an expansion of field size.

In the lowlands the cycle is much the same but with the initial plowing beginning about three months later. Since lowland farmers rely on the receding flood waters to provide moisture to their fields they must wait for the end of the rainy season as the river is shrinking to plant their fields. Planting then becomes a gradual affair as more and more land becomes accessible. This practice has recently become more feasible to many farmers due to the construction of a diversion canal near Arbore causing the Tullia Basin to fill with water. This project, directed by a volunteer from the German Voluntary Service, has greatly increased the acreage cultivated by the lowland farmers and demonstrates the feasibility of similar projects in the area. However, further research and experimentation is necessary in improving the minor canals that carry the water to each farmer's fields.

In the areas of the lowlands where corn is planted, most of the activities are the same with the exception of the bird scaring which is not necessary. About ten seeds are planted to each hill and then thinned to three or four. A particular problem surfacing in the cultivation of corn is that of hybrid deterioration. Much of the seed that has been introduced into the area was originally from hybrid stock or has crossed with hybrid stock. Without the introduction of new hybrid stock the variation began to deteriorate. This can be observed particularly in Arbore in the great variation between plants in the same field, ostensibly from the same progenitors.

As in most areas, the grain is stored in the panicle or on the husk in dung, mud and straw containers which leave much to be desired.

B. The Herding Cycle, Operations and Labor Utilization

There are two types of herds which can be classified as village and range herds. Village herds consist of a small group of primarily breeding female cattle, sheep and goats which remain around the village compound specifically for the purpose of providing milk. The field herds are the large herds that are kept on pasture, near water, and away from the tsetse fly. These herds move with the seasons and as they move, the young men who herd them move their camps. These herds might best be considered as the savings accounts of the Herer people, to be drawn on in times of need, to be built up in times of surplus, but always to be maintained.

The seasonal grazing patterns in Herer can be thought of in terms of dispersion and concentration. These movements follow the dictates of the

ecological systems in which they have evolved. During the rains in the highlands the herds concentrate around the best pastures and largest waterholes. When it becomes dry, however, they disperse seeking small pockets of grass and water. In the lowlands the herds disperse in the rainy season to avoid disease transmission and to seek the best pastures. In the dry season, however, the only pastures or water that can be found are along the river and the herds, therefore, concentrate at the river. During the dry season in the highlands some herds are also brought down to the river.

Usually the small boys are in charge of the village herds, whereas the young men tend the field herds. Women never tend the herds with the exception of young girls who often milk the animals of the village herds.

Most often the village herds will be kept separate according to family lines. The field herds most likely will be composed of the animals of many families. This is done primarily for protection because some herders are better than others and are sought as herd leaders.

III. The Geleb (Floodplain Farming)

In terms of Ethiopian influence the Geleb are probably one of the most isolated tribes in the country. Their trade and alliance patterns take them south and west into Kenya and the Sudan with only marginal interest being directed towards the Buse to the north or the Hamar to the east. Indeed, frequent wars and raids between these tribes and the Geleb tend to isolate them in their small corner.

Their farming system is centered around the Oso River and the all important island, or delta that has been formed where the Oso fans out before entering Lake Rudolf. Like the Hamar, they are part agriculturists and part pastoralists. However, whereas agriculture seemed to dominate in the case of the Hamar, livestock rearing seems to dominate in the case of the Geleb.

The Buse and the Kare, both to the north of the Geleb, will be considered together in this discussion however, the following distinctions should be observed. The Buse, doing some cultivation along the Oso are primarily herdsmen. The Kare on the other hand cultivate along the river banks as do the Geleb but keep very few, if any, animals.

A. Inventory of Farm Assets

1. Land Tenure - for agricultural land either along the Oso River or one of its tributaries, the first man to start farming an area was, and is, given the claim to all the land at that particular place. When he dies, it passes to one of his sons. The son then has "say" over that piece of ground. If a person desires to use a piece of it, he must get permission from that man. Sometimes the permission might involve the exchange of some sorghum for rent.

Not all of the people farm. Especially those on the delta prefer to use their land for pasturing. Nonetheless, there seems to be a great deal of unused land surrounding the delta, giving the impression that much more land could potentially be brought under cultivation or put into pasture.

2. Land Quality - With the exception of the lack of water, land on the east side of the Omo River appears to be very fertile and potentially exploitable. The reason for this seems to be the almost annual flooding of the river which brings down nutrients from the highlands. For this reason the Delta is also said to be quite fertile.

The west side of the Omo River, except for a narrow band of perhaps one hundred meters at most, is quite sandy with little potential for agriculture even under irrigation.

3. Labor - While the nuclear family carries the responsibility for agricultural production, the men provide very little labor beyond the heavy portion of land preparation and security for the crops and the herds.

4. Equipment - The Geleb, as with the Konso and the Hamar, use only the most basic and rustic of farm implements: a digging stick, hoe, and knife.

5. Grain Storage - The same clay, dung and straw vessels used by the Hamar are used by the Geleb. When queried as to the effectiveness of the grain bins, the Geleb on several occasions responded that storage was not such of a problem since their harvests were not sufficient to provide enough grain to store for any length of time.

6. Fences and Other Agricultural Equipment - Fences seem to be of a much flimsier nature than those of either the Konso or the Hamar. This could be due to the keeping of the herds at a great distance from the fields and the maintenance of crop free corridors to the rivers so that the animals could drink.

B. Inventory of Farm Outputs

1. Sorghum - This crop, aside from small amounts of tobacco, appears to be the only thing planted by the Geleb. Apart from some Relief Commission grain, it is also the only cereal which is consumed. Two crops are attempted by letting the plant "katoon" however, the second harvest seems to always be far smaller than the first.

2. Livestock - Cattle are a very central point in the Geleb culture. Except for rituals and sacrifices they are very rarely slaughtered. Rather, they are used for their milk and blood. Herd estimates are in the range of 5,000-10,000 head with a household average of 1.6

Goats and sheep, being better adapted to the ecology of the area, are much more prevalent. Average household herds would be in the range of 4.6.

Donkeys are in evidence but are only utilized as occasional beasts of burden.

C. Breakdown of Use of Farm Production

Generally some families specialize in sorghum production and others in livestock with the two commodities being traded within the tribe. However, during project preparation grain stores were said to be so low that it is doubtful that much trading is taking place. Just about all farm production except for the occasional sale of a goat to the police or other government official is thought to be consumed by the family.

D. The Farming Cycle, Operations and Labor Utilizations

In contrast to the Hamar and the Konso, the Geleb are not dependent on the rains to begin their crop cycle but on the receding of the river seasonally in October. As the river gradually recedes the farmers (or their wives in most cases) plant rows of sorghum parallel to the river. Every few days another row will be planted until the end of November. The hills are a little more than three feet apart both ways and with approximately 40 seeds being placed in each hill. The hills are gradually thinned to an average of eight plants. The harvest takes place from January to March. In a good year, when the river does not rise too soon, a second harvest can be achieved in June.

In terms of livestock movement, the delta plays an important role. When the river has reached a low stage by November the Geleb begin a mass migration across the river to the rich grasses and waterholes of the delta. By early February virtually all of the cows of the Geleb have made the migration to the delta. There they remain until late May when the spring rains and the resulting rising river indicate that it is now time to return to the desert pastures.

The delta is relatively lush and deep and has a far greater concentration of diseases and disease carrying insects (tsetse, ticks, etc.) After four to six months on the delta, in spite of the good grass and water, the herds begin to come down with several of the diseases endemic in the area (trypanosomiasis, rinderpest, tuberculosis, blackleg, etc.), in addition to being afflicted by ticks, flies and fleas. The herdsmen, therefore, look forward to the move to the desert which is relatively free from disease and said to have curative effects on the cattle.

Agricultural Support Systems

I. Research

Agricultural research being conducted for the project area can be considered on three levels: national (the Institute for Agricultural Research Alemaya Agricultural College); local governmental (EPID); local private (Norwegian Lutheran Mission, American Presbyterian Mission).

The Institute for Agricultural Research (IAR) has seven demonstration-experimentation farms within Ethiopia. The closest to the project area is at Chenchu approximately 140 kilometers from Konso, entailing a ten acre demonstration farm. The IAR has designated the Southern Gemu Gofa region to be a marginal area and therefore not of specific interest to the Institute. Nevertheless the IAR is conducting research into several fields that might be of secondary interest in the project area. Varieties of sorghum and corn are being developed at the Awasa station, 250 km away, that, while not specifically appropriate to the area, might lead to an expansion of a data base that could be used by the project. IAR is also conducting research into the control and treatment of disease in livestock which very possibly could be pertinent to the project.

There is some research being conducted at the Chenchu station in the field of pasture improvement. However, this is all with grasses that require more water than is currently available in the project area.

Research into village level grain storage units is being conducted at the Alemaya Agricultural College. They are also attempting some research into basic farm implement improvement.

EPID maintains a small experimental/demonstration farm in Arba Minch which is conducting trials on varieties of sorghum, corn, and vegetables.

EPID also maintains an experimental farm/demonstration plot in Omo Rate. During project preparation four hectares had been planted to hybrid corn under irrigation and one hectare was being used for the training of oxen and the demonstration of various vegetable varieties. The irrigation for the fields is provided by gasoline pumps which have greatly impressed the local farmers who now request them with great demand.

The Norwegian Mission, in the past and to some degree at present, maintains a very small plot for field trials on varieties of sorghum, beans, root crops and vegetables.

The American Mission at Kelen, near Omo Rate, has for many years been conducting research into irrigated cropping for citrus trees, alfalfa, vegetables, sorghum and pulses. Methods of irrigation have also been under examination with the major emphasis being on the use of

windmills. Although seemingly a good adaptation to the needs and resources of the area the farmers were against them and in favor of pumps due to their greater output for less work.

The major problems concerning agricultural research for the project area are twofold: (1) a general lack of interest in the project area based on its low production potential in comparison with other areas, and (2) an almost complete lack of coordination between the different agencies and organizations conducting research in the area.

To the knowledge of the design team, no new technologies were being tested on the farms of individual farmers.

II. Extension

As of project preparation EPID had one Rural Community Worker in Konso (Bakaule), and a Cooperative Agent and Rural Community Worker in the Geleb area (Omo Rate). The Ministry of Agriculture had an animal vaccinator in Omo Rate. While all four of these extension agents attempted to perform their tasks with great enthusiasm and dedication they were restricted by the lack of vehicles, supplies, and other logistical support. Indeed, three of the irrigation pumps in Omo Rate were broken down for lack of a mechanic.

The workers appeared to be adequately trained and motivated given the specific areas that they were assigned to work in. Nevertheless, given the needs of the area and the scarcity of personnel to address them, the workers are constantly being requested to give advice on matters for which they have not been trained.

III. Credit

Credit transactions in the project area, either public or private, are minimal. In fact, in the Hamar and Geleb areas the populations are so far outside of a market economy that it is doubtful that any exists at all.

Wherever Peasants' Associations exist EPID, through the Minimum Package Program I, has the ability to grant credit to seed, fertilizers, and the purchase of oxen. Global loans are made directly to the Peasants' Associations who are then responsible for the distribution and collection of individual loans to its members. To date some small amounts of seed and fertilizer has been distributed in the Konso area. In the land resettlement area of Gato (Konso Woreda) EPID has granted the Peasants' Association a loan for the purchase of oxen of Eth\$ 15,000 with a four year grace period and no interest unless they fail to begin paying back after four years.

EPID's experience in other parts of the country in using the Peasants' Associations as an intermediary has resulted in a greater than 95 percent repayment rate.

IV. Delivery System

So few agricultural inputs are used in the project area that any discussion of a delivery system would be meaningless. The only inputs that are provided come through the EPID channels to the Peasants' Associations.

For the future development of the project, experience has shown that as Peasants' Associations are set up, they would be the likely conduit for the delivery of inputs.

Due to the fact that only small amounts of seed, and possibly some fertilizer, will be recommended for project participants it is not anticipated that any problems will arise in the distribution of inputs.

V. Marketing

Aside from the regularly scheduled market days in the Konso area no formal marketing system exists in the project area. Indeed, surpluses are so small and trade so restricted that only miniscule amounts of produce reach the market. During the first years of the project any increases in production will most likely be consumed locally. In the longer run the situation is difficult to predict. As the government changes from a market system to a socialist system the delivery of surpluses to market will most likely be regulated. (See map Appendix C. 1. for trade routes.)

VI. Pricing

In the current barter economy prevalent throughout most parts of the project area any attempt to assess the effects of a pricing policy would be speculative. There exist certain basic relationships between specific commodities: one standard ear of sorghum equals one goat, eight goats equal one cow. These relationships appear to change over time as the different products become more scarce or more common and as such, approximate prices. Nevertheless without the people being oriented towards a monetary economy they will not be stimulated to adopt, accept, or participate in development activities oriented towards only monetary rewards.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

4-11-1983 (27-7-83)
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Project Title & Number: SOUTHERN SEMI DRY AREA REHABILITATION PROJECT - 863-0193

PAGE 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>Improve the production and socio-economic well-being of people living in drought prone (marginal) areas in a way that increases their self-reliance.</p>	<p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> 1. Reduced variation in annual agricultural production levels. 2. Availability of social services increased. 3. Increase in level of economic activity. 4. Activity community participation in development and social service project. 5. Reduced need for relief assistance. 	<ol style="list-style-type: none"> 1. Data provided by project information system. 2. Physical observation. 3. Records at GOE agencies providing services in the area (relief records and others). 4. Evaluations. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. Peasant Associations will be receptive to development efforts. 2. Basic development plans can be formulated & carried out by peasant associations. 3. IFMC will provide resources necessary to support peasant associations. 4. Low cost strategies can be developed. 5. Normal weather patterns (drought included). 6. Insecurity caused by inter/intra tribal disputes can be minimized. 7. Appropriate technology developed is applicable to areas outside of project. 8. Trained personnel will be transferred to other areas.

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GEMU GOFA AREA REHABILITATION PROJECT - 663-0193

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <p>Develop cost-effective approaches for building the capabilities of the peasant associations and the local government system to plan and carry out rural development activities which reduce vulnerability to natural disasters in the drought affected areas of Southern Gemu Gofa province.</p>	<p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> 1. Improved planning management and evaluation capability in local government & peasant associations. 2. Guidelines for establishing development programs for local government & peasant association established. 3. New and/or improved agro-technologies in use in project area. 4. New and/or improved micro-industries established. 5. Increased low-cost technological information available for use outside of project. 6. Additional economic infrastructure in place. 7. Increased social services in project areas. 	<ol style="list-style-type: none"> 1. Data provided by project information system. 2. Physical observation. 3. Project records & reports. 4. Evaluations. 5. Peasant associations development plans. 	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> 1. Project information system will be operative at start & through life of project. 2. Peasant associations are formed in all project areas. 3. Alternatives exist for improving food crops, live-stock & micro-industrial technologies. 4. Construction will occur on schedule. 5. Peasant associations can identify & implement feasible projects.

10/20/78 (10-78)
 SUPPLEMENT 1

PROJECT DESIGN SUMMARY
 LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GENU GOFA AREA REHABILITATION PROJECT - 663-0193

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:		Assumptions for achieving outputs:
1. Strengthened planning management & evaluation capabilities of peasant associations and local government institutions.		1. Project records 2. Project Agreement (Pro-Ags.) 3. Evaluation 4. Physical observation 5. Data provided by Project information system	
(a) Functioning information system within the provincial organizational structure.	FY 78 Established	FY 79 Improved	FY 80 Suitable for replication
(b) Functioning provincial development planning/trg. office	Established	Improved	Suitable for replication
(c) Improved local gov't. logistical/support capability	Vehicles/ equip. in- country.	In use	Maintained
(d) Peasant associations with organizational & management capabilities.	Trg. programs initiated	Continued	Representatives of all Peasants Associations trained.
2. Alternatives for improving food crop, livestock & auxiliary activities (fish, bees) production.			
(a) Completed land use & water resource survey.	Survey completed	Results operative	Information expanded & refined.
(b) Functioning EPID centers in project areas	4 function- in EPID centers	Expanded program	Further development
(c) Alternative agro-technologies appropriate for project areas.	Test underway	Improved agro-tech., disseminated	Continued
(d) Peasant associations' members trained in basic agro-technologies.	Training programs initiated	Training underway	Reps. of all Peasant Associations trained

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GEMU GOFA AREA REHABILITATION PROJECT - 663-0193

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	Magnitude of Outputs:				Assumptions for achieving outputs:
	FY 78	FY 79	FY 80		
3. Appropriate technologies for micro-industrial development identified, tested and introduced. (a) Functioning appropriate technologies center in project area.	Center built, staffed, functioning	Appropriate techs. under test & being disseminated	Further test & dissemination		
(b) Peasant associations members trained in new and/or improved micro-industrial technologies.	-	Training underway	Membership of some Peasant Associations trained		
4. Minimum economic infrastructure necessary for promoting improved production developed in project area.	Feeder rd. construction started (kms to be determined).	Continued	Necessary feeder rds. constructed		
(a) Feeder roads constructed	20 wells/springs	35 wells/springs	45 wells/springs		
(b) Well-Spring improvements projects completed in project areas.	\$150,00 of projects planned/executed	\$200,000	\$200,000		
(c) Development projects identified and executed by Peasant associations	5. Methods for improving the quality of social services that increase the well-being and production capability of the local population				

3 128-28 (7-79)
APPENDIX I

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GEMU GOFA AREA REHABILITATION PROJECT - 663-0193

PAGE 3 (B)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Outputs:	<i>Magnitude of Outputs:</i>				
5. (continued)	FY 78	FY 79	FY 80		Assumptions for achieving outputs:
(a) Health/nutrition survey	Survey completed	Results operative	Info.	expanded and refined	
(b) Functioning health workers trg. program in project areas	Trg. Prog. commences	Continued	All Peasant Associations have	trained reps.	
(c) Functioning nutrition education/functional literacy program in project areas.	100 students trained	300	500		
(d) Health clinics functioning in project areas	2 health clinics built, staffed, functioning	Health Services Continued	Curative & Preventive Service Provided		

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GENU GOPA AREA REHABILITATION PROJECT - 663-0193

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs:	Implementation Target (Type and Quantity)				Assumptions for providing inputs:
<u>U.S.</u>				1. Project agreements.	
				2. Project records	
1. Technical Assistance				3. Evaluation	1. Technical assistance inputs can be provided as scheduled.
(a) Long Term - Rural Dev. Specialist				4. USAID audit	
(b) Short Term -					2. GOE can provide staff & budget support for the project
Ag. fields (8 pm)					
Infrastructure (2 pm)					
Appropriate tech. (2 pm)					
Health nutrition (1 pm)					
2. Training					
(a) Observation					
3. Commodities					3. Commodities procured and on site as scheduled
(a) Vehicles					
(b) Miscellaneous					
4. Other Costs					
(a) Construction					
(b) Evaluation					
(c) Development Fund					
(d) Miscellaneous					
Sub-Total					
Inflation					
Contingency					
Total					
TOTAL U.S.					

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Project Title & Number: SOUTHERN GEMU GOFA AREA REHABILITATION PROJECT - 663-0193

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS			MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs:	Implementation Target (Type and Quantity)				Assumptions for providing inputs:
<u>HOST COUNTRY</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>		
<u>EFMC</u>					
1. Staff	\$243,000	\$243,000	\$272,000		
2. Recurrent Budget	<u>154,800</u>	<u>163,800</u>	<u>172,800</u>		
Sub-Total	397,800	406,800	444,800		
Inflation	59,670	130,176	231,296		
Contingency	<u>59,670</u>	<u>61,020</u>	<u>66,720</u>		
Total	\$517,140	\$597,996	\$742,816		
TOTAL EFMC				\$1,857,952	
<u>FARMERS</u>					
1. Labor/materials	\$180,000	\$252,500	\$267,500		
TOTAL FARMERS				\$ 700,000	
TOTAL PROJECT				<u>\$5,727,838</u>	

COUNTRY Ethiopia	PROJECT NO. 663-0193	PROJECT TITLE Southern Gemu Gofa Area Rehabilitation Project	DATE	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> APPROVED
PROJECT PURPOSE (FROM PAF FACESHEET)			<input type="checkbox"/> REVISION #		

Develop cost-effective approaches for building the capabilities of the people, their peasant associations and local government system to plan and carry out rural development activities that reduce vulnerability to natural disasters in the drought-affected areas of southern Gemu Gofa Province.

CPI DESCRIPTION

1. Rural Development Specialist on board - 3/77
2. Provincial Development office fully staffed, functioning - 5/77
3. Provincial Development account established - 5/77
4. Short-term technical assistance experts on-board - 7/77
5. Information system established - 7/77
6. Training for Peasants Associations (P.A.) in org/mgt. started - 7/77
7. Agronomic trials started - 7/77
8. Project Agreement signed - 9/77
9. EPID staff recruited and trained centers functioning - 11/77
10. Farmer training in agro-tech. begins - 5/78
11. Health clinics functioning - 5/78
12. Nutrition/functional literacy program begins - 6/78
13. Cumulative \$150,000 in P.A. projects planned and underway - 7/78
14. First improved agro-technologies ready for demonstration - 7/78
15. Internal evaluation and seminar completed - 9/78
16. Appropriate technologies center functioning - 9/78
17. Feeder roads construction underway - 10/78
18. Village health worker training underway - 10/78
19. (Second input) short-term techn. experts (on board) - 1/79
20. External evaluation completed - 3/79
21. Quantitative/qualitative improvements have occurred in completed P.A. dev. plans - 3/79

22. Internal evaluation and seminar completed - 9/79
23. Cumulative \$350,000 in P.A. projects planned, underway - 10/79
24. All P.A. have trained agro-tech. representatives - 10/79
25. New and/or improved agro-technologies and micro-indus. technologies ready for dissemination - 10/79
26. 55 wells/springs improvement project completed - 10/79
27. All P.A. have personnel trained in org. and mgt. - 12/79
28. (3rd input) short-term tech. experts begins - 3/80
29. External evaluation completed - 4/80
30. Observation and in-country training completed - 9/80
31. New and/or improved micro-industries and agro-technologies ready for dissemination - 9/80
32. Internal evaluation and seminar completed - 9/80

CRITICAL PERFORMANCE INDICATOR (CPI) DESCRIPTION

MONTH	1977												1978												1979												POST ACTION:																																				
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D																																					
General	0												12												24												36																																				
PROR ACTIONS																									19																																																
Peasant Assn. Local Govt.																									21												27																																				
Crop Livestock Prod.													7												10												24																																				
Micro-Indust. Dev.																									14												25																																				
Comm. Infra-structure																									13												16												17												26												
Social Service Dev.																									11												12												18												23												
ANALYSIS SCHEDULE																									15												20												22																								
PROGRESS OF FINANCIAL																																																																									
EVALUATION SCHEDULE																																																																									

PROJECT TITLE

ANNEX C

DATE

ORIGINAL
 REVISION #

ORIGINAL
REVISION #

APPROVED

1980

1980

1981

1981

J F M A M J J A S O N D J F M A M J J A S O N D

0

8

12

24

36

POST
ACTION:

30

31

CRITICAL PERFORMANCE INDICATOR (CPI) NETWORK

COST FACTORS

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Long Term T.A.	15,000/year	75,000/year	75,000/year	95,000/year
Short Term T.A.	7,500/mo	7,500/mo	8,250/mo	9,075/mo
Part Travelling				

Plane Ticket	350
Per diem	500
Travel in- country	200
Other	<u>250</u>
Total	1300

Evaluation

20 people x 5 days x Eth.\$30 day per diem = 1500

Vehicles

Toyota		
4 wheel drive	12,000	
4 Ton trucks	27,000	
Motorcycle	1,200	

Office Equipment

File	115	55	170
Desks	300	150	450
Chair	100	50	150
Table	70	35	<u>105</u>
			705

Typewriter (manual)	300
Mimeo machine	400
Calculator	100

Secretaries

1 Secretary/Admin.	4,000 annually
1 Typist	2,000 annually

COST FACTORS

- 2 -

Drivers

2,000 per driver

Vehicle Main.

10% of purchase price per year

Prov. off. costs

Est.

Vehicle Operation

4 WD x .254/lm x 25,000	= 6,250	x 4	25,000
Truck x .504/km x 15,000	= 7,500		7,500
Motorcycle per year	= 1,200		

Local Travel Per diem

Sr. Div. Officer	1,500	1,000	500
Deputy	1,000	700	300
3 professionals	6,000	1,000	1,000

Inflation (U.S.)

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	
10%	21%	33%	(10% Compounded)
(Eth)			

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
15%	32%	52%

Training
Center
Equipment

Class room Equipment
 Chairs @ 15.00 x 30 = 450
 Table @ 50.00 = 50
 BlackBoard @ 100.00 = 100
 Misc. 100.00 = 100

EPID Center

Desk.
 Chair 705
 File

COST FACTORS

- 3 -

Literacy Recurrent Budget Support

To supplement Teachers Salaries

Year 1

100 students @ 20 per class = 5 teachers
5 teachers \$2.00 per night x 5 nights per week =
20 days on \$40/month x 7 months = @280/year = 5 = \$1400

Year 2

1400 x 3

Year 3

1400 x 5

Training Materials for L.T.

ESTIMATED PROJECT COSTS BY OUTPUTOutput #1

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>U. S. Finance</u>				
<u>1. Technical Assistance</u>				
a. Rural Development Specialist	45,000 (6 mo)	112,500 (18 mo)	75,000 (12 mo)	37,500 (12 mo)
b. Information System Advisor	15,000 (2 mo)	22,500 (3 mo)	22,500 (3 mo)	22,500 (3 mo)
c. Mechanical Advisor	-	22,500 (3 mo)	7,500 (1 mo)	-
	60,000	157,500	105,000	60,000
<u>2. Training</u>				
a. Third Country Observation (2 weeks)	3,900 (3 ind)	3,900 (3 ind)	3,900 (3 ind)	3,900 (3 ind)
	3,900	3,900	3,900	3,900
<u>3. Commodities</u>				
<u>a. Vehicles</u>				
1. 4 wheel drive Land Cruisers (Toyota)	12,000 (1)	36,000 (3)	-	-
2. 4 Ton Truck	-	27,000	-	-
3. Motorcycles	(3)			

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
b. Boat and Motor	-	3,000 (1)	-	
c. Camping Equipment	1,000	2,000		
d. Equipment for Maintenance Facility		3,000		
e. <u>Office Equipment & Supplies</u>				
1. Typewriters (10)	300	2,700	-	
2. Files (10)	170	1,530	-	
3. Desks, Chairs & Tables (13) thirteen	1,410	7,755	-	
4. Calculators (4)	200	300	-	
5. Mimeograph Machine (1)	-	400	-	
6. Office Supplies	<u>500</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
	15,580	88,285	1,000	1,000
4. <u>Other</u>				
a. External Evaluation (18 mo and 30 mo)		15,000 (2 mo)	15,000 (2 mo)	-
b. Internal Evaluation & Seminar and Seminars (12, 24 & 36 mo)		1,500	1,500	1,500
c. Housing				
1. For AID Rural Development Specialist (1)	40,000			
2. Low Cost House in three Project Areas (3)	15,000			
d. Local Research Fund		15,000	15,000	15,000

Output #1

- 3 -

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
d. Vehicle Maintenance Funds	120	10,000	10,000	10,000
e. Salaries of Drivers (5)	1,000	10,000	10,000	10,000
f. Salaries of Secretaries (2)	<u>3,000</u>	<u>6,000</u>	<u>6,000</u>	<u>6,000</u>
	<u>59,120</u>	<u>57,500</u>	<u>57,500</u>	<u>42,500</u>
Sub Total U.S. Financial Inflation	138,600	307,185	167,400	107,400
Contingency @ 15%	-	30,719	35,154	35,442
Total Output #1	<u>20,790</u>	<u>46,978</u>	<u>25,110</u>	<u>76,110</u>
	<u>159,390</u>	<u>383,982</u>	<u>227,664</u>	<u>158,952</u>

PMGE Financed1. Staff

a. Provincial Level

1. Senior Development Officer

2. Deputy	7,500	10,000	10,000	10,000
3. Operational Staff	-	8,000	8,000	8,000
4. Support Staff (2)	13,500	18,000	18,000	18,000
	2,400	3,000	3,000	3,000

b. Awraja and woreda

(Included in part of other outputs)

	<u>39,000</u>	<u>39,000</u>	<u>39,000</u>
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2. Facilities

a. Office Spa.	1,800	2,400	2,400	2,400
b. Vehicle Maintenance Arpa	900	1,200	1,200	1,200

3. Recurrent Budget

a. Provincial Office	3,750	5,000	5,000	5,000
b. Vehicle Operation	4,687	36,100	36,100	36,000
c. Local Travel and Per Diem	6,375	8,500	8,500	8,500
d. Miscellaneous	3,750	5,000	5,000	5,000
Sub Total	<u>44,662</u>	<u>97,200</u>	<u>97,200</u>	<u>97,200</u>
Inflation	-	19,580	31,104	50,544
Contingency @ 15%	<u>6,699</u>	<u>14,580</u>	<u>14,580</u>	<u>14,580</u>
Total	<u>51,361</u>	<u>126,360</u>	<u>142,884</u>	<u>162,324</u>

Output #2

U.S. Financed	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
1. Technical Assistance				
a. Rural Development Specialist	15,000 (2 mo)	-	-	-
b. Hydrologist/Irrigation Expert	15,000 (2 mo)			
c. Arid Land Farming Expert (Production Agronomist)	7,500 (1 mo)	15,000 (2 mo)	15,000 (2 mo)	15,000 (2 mo)
d. Soil Scientist	-	30,000 (4 mo)	7,500 (1 mo)	7,500 (1 mo)
e. Soil and Water Conservation - Expert(s)	-	22,500 (3 mo)	22,500 (3 mo)	22,500 (3 mo)
f. Small Scale Irrigation Specialist	-	22,500 (3 mo)	22,500 (3 mo)	22,500 (3 mo)
g. Agriculture Expert	-	7,500 (1 mo)	7,500 (1 mo)	7,500 (1 mo)
h. Agriculture Specialist	-	15,000 (2 mo)	7,500 (1 mo)	7,500 (1 mo)
i. Animal Health Specialist	7,500 (1 mo)	22,500 (3 mo)	7,500 (1 mo)	7,500 (1 mo)
j. Pasture Development Range Management	-	22,500 (3 mo)	15,000 (2 mo)	15,000 (2 mo)
	45,000	157,600	105,000	105,000

Output #2

- 2 -

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
2. <u>Training</u>				
a. In country	3,000	5,000	5,000	5,000
b. External	-	-	-	-
	<u>3,000</u>	<u>5,000</u>	<u>5,000</u>	<u>5,000</u>
3. <u>Commodities</u>				
<u>a. Vehicles</u>				
1. 4 wheel drive Land cruisers	-	48,000 (4)		
2. Motorcycles		4,800 (4)		
3. Bicycles		-		
b. Solid Analysis Equipment		5,000	-	-
c. Miscellaneous Supplies To support technical areas (Pumps-1, hoes, shovels, ox-plows, etc.)	3,000	15,000	30,000	30,000
d. Boats & Motors (EPID-Omo Rate - Kavo)	-	6,000 (2)		
e. Radios (4)	-	8,000		
f. Class room equipment (for w training centers)		1,600		
g. Teaching Materials		1,000	1,000	1,000
h. Office Equipment (4 sets)		2,820		
i. Office Supplies		2,000	2,000	2,000
	<u>3,000</u>	<u>94,220</u>	<u>33,000</u>	<u>33,000</u>
4. <u>Other Costs</u>				
<u>a. Construction</u>				
1. EPID Centers (3)		45,000		
2. Training Facilities(2)		15,000		

Output #2

- 3 -

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
3. Housing for EPID staff (8)		16,000		
4. Student Housing				
a. Training Center (30 local houses)		15,000		
b. Development of Improved Storage		1,500	1,500	1,500
c. Training Facility Maintenance		1,000	1,000	1,000
d. Training Center Operation (2 centers) (\$2,50 day/farmer x 10 days x 30 farmers x 10 courses)		15,000	15,000	15,000
e. Conduct of Soil and Water Supply	3,000			
	3,000	108,500	17,500	17,500
Sub Total	54,000	365,220	160,500	160,500
Inflation	-	36,522	33,705	52,965
Contingency (15%)	8,100	54,783	24,075	24,075
Total Output #2	62,100	455,525	218,280	237,540
			Totals	123,192
				102,933

Output #2

- 4 -

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>GOE Financed</u>				
1. Staff				
a. Provincial (2 Sr. staff equivalent)	6,000	16,000	16,000	16,000
b. Woreda (8 EPID staff)	12,000	32,000	32,000	32,000
c. Support				
1. driver (4)	-	8,000	8,000	8,000
2. Other (4)		6,000	6,000	6,000
		62,000	62,000	62,000
2. Facilities				
a. EPID Center (1)	15,000			
3. Recurrent Budget				
a. Vehicle Operation (incl. motorcycle)		28,600	28,600	28,600
b. Local Travel per- dium (\$500 per person)	1,000	4,000	4,000	4,000
c. Miscellaneous (incl. boat operation)	500	2,000	2,000	2,000
Sub Total	34,500	96,600	96,600	96,600
Inflation		14,490	30,912	50,232
Contingency	5,175	14,490	14,490	14,490
Total	39,675	125,580	142,002	161,322
				95,614
				48,645

<u>OUTPUT #3</u>				
U.S. Financed	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>1. Technical Assistance</u>				
a. Short Term Assistance To Technology Center	-	22,500 (3 mo)	22,500 (3 mo)	22,500 (3 mo)
b. Short Term Assistance To Office of Small Scale Industries		15,000 (2 mo)	15,000 (2 mo)	15,000 (2 mo)
		37,500	37,500	37,500
<u>2. Training</u>				
a. Study Tours National Tech.		1,300 (1)	1,300 (1)	
b. Study Tours - Local Tech.		1,300 (1)	1,300 (1)	
		2,600	2,600	
<u>3. Commodities</u>				
a. Vehicles Land Cruiser		12,000 (1)		
b. Office Equipment				
1. Desks, chairs, tables (1 sets)		2,820		
2. Calculator and Typewriter		400		
3. File		170		
c. Training Materials		5,000	5,000	5,000
		20,390	5,000	5,000

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>Other Costs</u>				
1. Recurrent Budget				
a. Staff				
1. 3 Senior Staff		18,000	18,000	
2. Secretarial (1)		3,000	3,000	
3. Support (4)		8,000	8,000	
b. Funds for Experimentation Demonstration and Construction of Prototypes		10,000	15,000	15,000
c. Vehicle operating costs		6,250	6,250	6,250
d. Studies and Investigations by Ethiopian Institutions		15,000	15,000	15,000
e. Facility for Center		15,000		
f. Staff Housing		10,000		
		85,250	65,250	36,250
Sub Total		145,740	110,350	78,750
Inflation		14,574	23,174	25,988
Contingency		21,861	16,553	11,813
		182,175	150,077	116,551

GOE

1. Staff				
a. Senior (3)				18,000
b. Secretarial (1)				3,000
c. Support (4)				8,000
2. Support from Ministry of Commerce	10,000	15,000	20,000	
Sub total GOE	10,000	15,000	19,000	
Inflation	1,500	1,800	2,480	
Contingency (15%)	1,500	2,250	2,350	
	13,000	22,050	21,830	
			31,780	
			11,100	

OUTPUT #4

<u>U. S. Financed</u>	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
1. Technical Assistance				
a. Short Term in Water Supply Development		15,000 (2 mo)	7,500 (1 mo)	
b. Short Term in Labor Intensive Road Construction		15,000 (2 mo)	7,500 (1 mo)	
		<u>30,000</u>	<u>15,000</u>	
2. <u>Training</u>				
3. <u>Commodities</u>				
a. Equipment and Supplies for Water Development Teams		10,000		
b. Vehicles				
1. 4 wheel Drive Land Cruisers		24,000 (2)		
2. Truck		27,000 (1)		
c. Camping Equipment		<u>3,000</u>		
		<u>64,000</u>		
4. <u>Other Costs</u>				
a. Provincial Development Fund	50,000	150,000	200,000	200,000
b. Materials and Support for well Construction and Spring Improvement		30,000 (20)	52,500 (35)	67,500 (45)
	<u>50,000</u>	<u>180,000</u>	<u>252,500</u>	<u>267,500</u>

Output #4

2

Sub Total	50,000	274,000	267,500	267,500
Inflation*		12,400	14,175	22,275
Contingency*		18,600	10,125	10,125
Total Output #4	50,000	305,000	291,800	299,900

* Not Calculated on Development Fund

GOE Funded1. Staff

a. Rural Roads

1. Senior (1)		8,000	8,000	8,000
2. Junior (1)		6,000	6,000	6,000
3. Support (2)		6,000	6,000	6,000

b. Water Resources

1. Senior (1)		8,000	8,000	8,000
2. Junior (2)		12,000	12,000	12,000
3. Supports		15,000	15,000	15,000

c. Local Government Administration

1. Senior (2)		16,000	16,000	16,000
2. Junior (1)		24,000	24,000	24,000
3. Support (5)		15,000	15,000	15,000

2. Recurrent Budget

a. Vehicle Operation

	20,000	20,000	20,000
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b. Travel and Per diem

	11,000	11,000	11,000
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c. Miscellaneous (Office, etc.)

	6,000	6,000	6,000
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Sub Total

	147,000	147,000	147,000
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Inflation

	22,050	47,010	76,440
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Contingency (15%)

	22,050	22,050	22,050
--	--------	--------	--------

Total

	191,100	216,060	245,490
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Peasant Contribution

1. Labor and Materials

50,000

	180,000	252,500	267,500
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OUTPUT #5

U.S. FINANCED

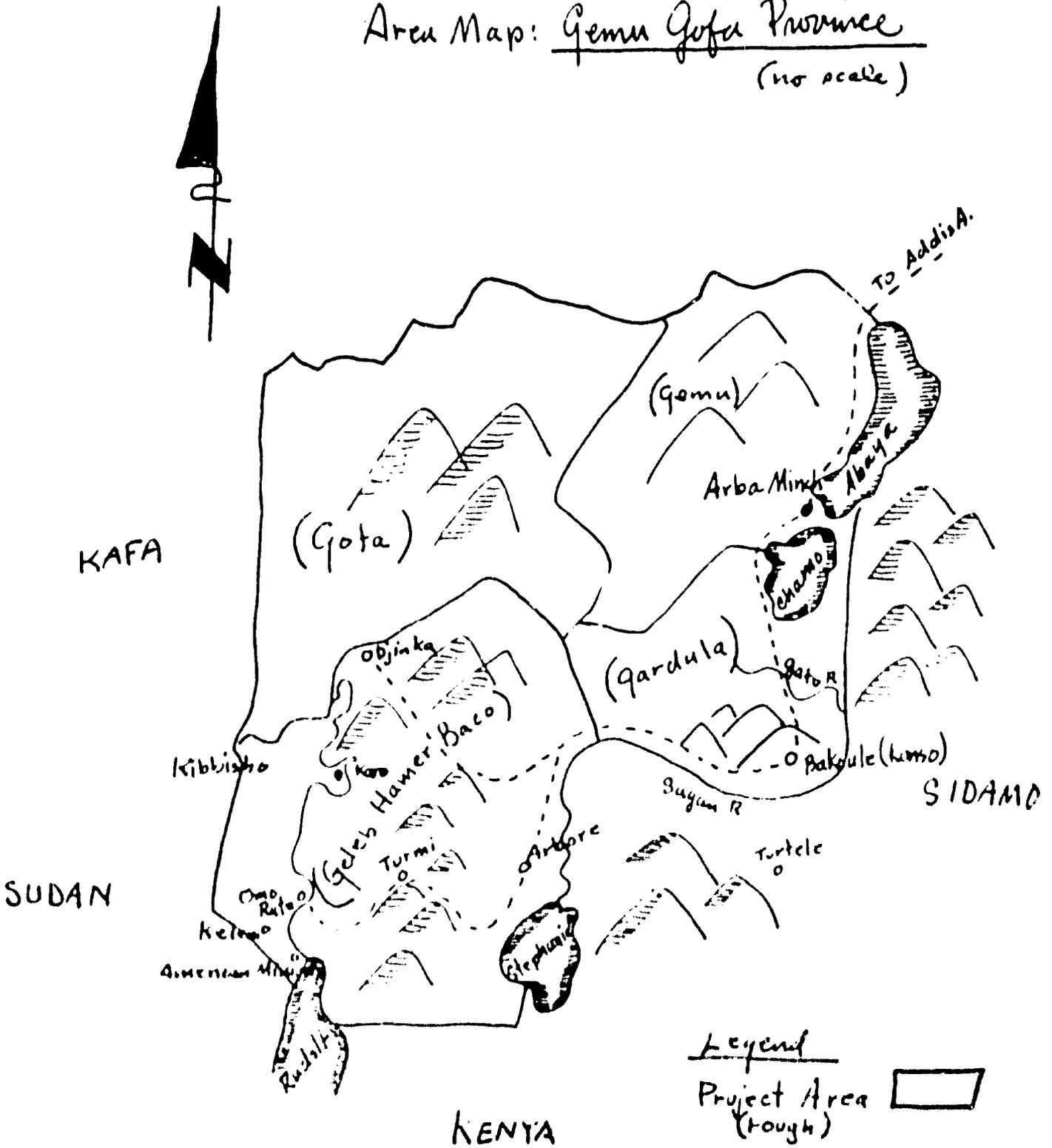
	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<u>1. Technical Assistance</u>				
a. Short-Term in Health and Nutrition	7,500 (1 mo)	15,000 (2 mo)	15,000 (2 mo)	15,000 (2 mo)
	7,500	15,000	15,000	15,000
2. Training				
<u>3. Commodities</u>				
See below				
<u>4. Other Costs</u>				
a. Training Materials and Program Support for Village Health Workers (2 centers)		6,000	6,000	6,000
b. Training Materials and Program Support for functional library program		1,000	3,000	3,000
<u>c. Construction</u>				
1. Health Clinics at Boume and Arbore		20,000	-	-
d. Recurrent Budget Support for Literacy Program		1,400	4,200	7,000
		28,400	13,200	18,000
Sub total	7,500	43,400	28,200	33,000
Inflation		4,340	5,920	10,890
Contingency	1,125	6,510	4,230	4,950
Total Output #5	8,625	54,250	38,350	48,840
			Totals	21,150 15,690

Output #5

- 2 -

	<u>Pre-Project</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	
<u>GOE FUNDED</u>					
<u>1. Staff</u>					
a. Training (2)		12,000	12,000	12,000	
b. Health Clinic (4)		20,000	20,000	20,000	
<u>2. Recurrent Budget</u>					
a. Training		3,000	3,000	3,000	
b. Health Clinic Operation		10,000	14,000	18,000	
c. Miscellaneous		2,000	2,000	2,000	
Sub Total		47,000	51,000	55,000	
Inflation		7,450	16,320	28,600	51,970
Contingency (15%)		7,050	7,650	8,250	22,950
Total		61,100	74,970	91,850	

Area Map: Gemmu Gofa Province
(no scale)





Area Map Showing Location of
Gemu Gofu Province (low scale)

Addis Ababa

Gemu Gofu

