PN-AAG-779

(27)

REPORT ON COMMUNITY DEVELOPMENT FOR OPERATION

MILLET - BANKASS AND KORO

June, 1977 Mopti, Mali

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AE50-017

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1. Organization and Scope of Report

This report is concerned with the situation of the populations of Operation Millet's zones of action in the two cercles of Bankass and Koro, Fifth Region; and the implications for community development planning. The presentation is divided into several sections.

The first section discusses the importance of the symbiotic relationship between productivity (economic activity) and social development (social services activities). From a planning and policy point of view, it draws attention to the roles of all segments of the society, but women and youth in particular. The inter-relationship of social with economic factors is delineated in analysis of health conditions of the population, access to education, extension services, health care, nutrition education, and markets - in sum, access to the economic and social system of the country. Attention is drawn to the position of youth in the target area.

The final sections address the role of Operation Millet in the zones of action vis-a-vis community development.

The summary and recommendations concentrate on a methodology for community development, with program recommendations and a budget for implementation.

An extensive appendix is attached to serve as a practical source of information for the USAID Community Development Specialist.

Introduction

Recent literature and analyses of developmental programs in the Third World have begun to change the orientation of the late 1950s and 1960s from massive "infrastructure" programs (roads, factories, industrial development) requiring vast amounts of money and highly trained manpower to those emphasizing policies through which the poor of the Third World can reach themselves for improvement in their standards of living. Thus Edgar Owens in Development Reconsidered states: "..the planning of development programs should emphasize regional and especially local institutions and systems through which the people would be able to do the following:

1. Gain access to the economic and social system of their country.
2. Learn how to use modern technology in their individual occupations and lives
3. Work in groups, such as their local government or their farmers' organization, to solve the problems of their local communities
4. Be linked to higher levels of the economy and society."

Thus we are experiencing the "small is beautiful" phenomena of micro development - or regional and local institutions through which the poor become progressively less poor. The assumption is made that the poor are willing and able to improve their lot, that slowly but surely their incomes will rise along with a parallel increase in investment. This latter investment is funnelled into simple technology rather than fancy airports and road networks; the strengthening of the local markets system, small scale land improvement projects, local small businesses and industries or para-industries, the manufacture of consumer products locally rather than a dependenceon costly imported items.

At the same time the notion of "integrated development" in the micro-economic sense is gaining popularity as young nations witness their adolescent-aged developmental institutions duplicating each other's hard work to the despair of planners everywhere, and to the loss of the very communities they purport to serve.

"Economic" Development therefore is viewed increasingly as linked with social development. Economists and planners should look less to GNP and conventional indices of growth rates and more to analyzing development from the bottom up. Mali is a classic picture of this developmental jigsaw, with an extremely high degree of administrative centralization paralyzing mid- let alone bottom-level developmental initiative. Little attention is paid to what the farmers themselves want or need in this overwhelmingly agricultural society, but a great deal of attention is paid to increasing their productivity. The budget of the Ministry of Social Affairs is a mere 6% of the total national budget. No one of course is to blame. A nation that leads all the lists of the most needy of the LDCs and bottoms all the lists in terms of the health and well being of its people has little choice but to grow enough to feed its people and earn a little foreign exchange in surplus grains and livestock. The success of the Operations in Mali (Cotton, peanuts, rice and millet) in productivty terms can not be criticized. In terms of putting the farmers within reach of the economic and social system of their country is another matter altogether and a subject dealt with in this report at greater length.

Unlike European countries where the notion of "Community Development" is accepted as a combination of services outside of basic economic activity, community development in Africa must be intrinsically linked with economic development. Thus the United Nations and its affiliates adopted in 1968 a universal definition of the term: "Community Development is the collection of procedures by which the inhabitants of a country unite their efforts with those of the public authority towards ameliorating the economic, social and cultural conditions of communities; associates these communities with the life of the nation and permits them to contribute without reserve to the progress of the country." 2

As even the finest tuned motor will not start without a live battery, a community development feasibility study must research all the social, economic and cultural segments equally. All the parts must fit for the needs of a community to be solved. To this end this report examines relationships and contributions of all segments of the agricultural peasant society. Usually ignored or lightly dismissed by Western consultants is the relationship of women and youth to agricultural productivity, division of labor, land use and rights, and marketing and their key role in the development or not of their communities. The farmer in Mali and especially among the Dogon peoples is clearly both masculine and feminine in gender. The Dogon are the first to proudly point out that a new wife means a new farmer in the family. The joyously greeted birth of a child reflects not only domestic happiness but the vital future contribution of yet another farm worker in the family.

Recent research[3] into the role of the African woman in subsistence and cash crop agriculture[4] has clearly demonstrated their very important contribution to production,* and that it can no longer be ignored. But more important than the simple redressment of historical dismissal of this role in assistance programs, is the participation of all segments

* 80% of all agricultural produce in sub-Saharan Africa is produced by women. Economic Commission for Africa

of the peasant society in their own progressive development.

It is encouraging that USAID held a conference in 1975 along with participating agencies to focus on the above discrepancy and recommend solutions.[5] Some of the recommendations and findings were: lack of adequate data on women, the need to gather better information and make more use of social anthropologists and scientists in the field. The Deputy Administrator, John Murphy summed up the situation succinctly: "How in the world field missions expect to be able to conceive and design projects that will involve the intimate participation of the rural poor in their development without clear indicators of the influences which impact on and motivate the rural poor to participate is a mystery to me." Happily, Mali has an anthropologist working in a Dogon community expressly studying agricultural practicies and the role of women which answers to Murphy's desire to see more field managers requesting social science personnel "especially as they relate to the integration of women into the development process." Happily also, this researcher has taken the recommendations seriously and during the six months spent in the field has attempted to gather data not only on the role of women, but the easily forgotten youth sector, as well as men.

The AID conference adopted several recommendations as have the major international assistance agencies to integrate women in development. Some are less realistic than others but nevertheless the thrust is there. The recommendation that missions should strive to get host country governments to allow women to participate in agricultural planning for AID assistance - on the consensus that women know better what agricultural

problems are than men - though valuable is not always possible due to cultural restraints. In Mali fortunately, women are very vocal indeed about agriculture and their role in it. They will point out at the drop of a daba (hoe) that they are the backbone of the farming community.

A second recommendation of the conference was intriguing, insofar as it criticizes mission attitudes towards host country farming women: "it is insufficient for an agricultural project to have 'not negative' impact on women." Project results should have positive impact on women, particularly the rural poor women. The goals of agricultural projects are 1) to improve the quality of life and the well-being of the rural poor, particularly women; 2) increase the opportunity for rural women to take part in and be functionally integrated into agricultural development processes.[5]

The Conference apparently took seriously a typical criticism of agricultural assistance programs in Africa:

> The attidues which are widely held toward women and their "place" are a major constraint - perhaps the major contrainst - on women's participation in development. It could be well advised for planners and implementors to re-assess their attitudes, bearing in mind that development efforts, to be effective require the maximization of all human resources and not just the male portion;[6]

and recommended that technical assistance in extension services be delivered to women, especially in Africa. The criticism is apt for Operation Millet where extension agents will not or cannot work with women on their own admission. But the recommendation is not so easily implemented. The bulk of the program recommendations in this report focus on the delivery of social and health and agricultural services to all the people, with special attention paid to both women and youth.

Extension workers working on a one-to-one basis as in Operation Millet have a limited impact. Saturation effect is limited, and even mainly to men. It seems obvious that extension work with groups of 20 would be more efficient. However to group 20 or so women together at one time is well nigh impossible since they are occupied with chores both domestic and agricultural from dawn to beyond dusk, leaving them very little time to participate in group activities educational or otherwise. Then again evaluation of project results is at best difficult for human resources analysis benefit.

In final analysis it is easy to say that since vital segments of the subsistence society have not been on the receiving end of assistance programs that action should concentrate on righting the wrong by implementing programs aimed at women or youth or whatever forgotten sector. Two wrongs do not make a right. Such an effort could be as misguided as its predecessor. What one can do is gain a clearer idea of the roles all segments play in society. The society here is subsistence farming; once one understands how the chessboard works and only then, can one start to move the pieces around as the players themselves wish, at their pace.

Community Development ipso facto means community - everyone, young and old and dying, poor, not so poor and well off, small girls and grandmothers of 35, the local Koranic teacher and the animist, the foreign trained veterinary doctor as well as the traditional healer. Each person has a clearly defined place in the type of society we call subsistence. Each has almost a religious respect for the other.

The community addressed in this report is strong, stronger indeed than those which nurture us from the technologically developed West, even though we eat better, live longer and are educated to read books and reports telling us how deprived the poor peoples of the Third World are. They are not poor in community. It is vital for us as developmental specialists to respect the "poor" as they respect each other - profoundly. It is in this spirit that this report is respectively submitted to AID in Mali. It is dedicated to the Dogon Community.

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June 3, 1977 Mopti, Mali

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3. Irene Tinker & Michele Bo Bramsen, Women and World Development, Overseas Development Council, 1976.

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5. Report Women in Development Conference, AID, Department of State, Washington D.C. October 1975.

6. D.R. Reynolds "An Appraisal of Rural Women in Tanzania" December 1974, Regional Economic Development Services Office, AID, page 41. Also see

"A Seven Country Survey on the Roles of Women in Rural Development" A Report prepared for AID under contract AID/CM/ta-C-73-41 December 1974 by Development Alternatives Inc., Washington D.C.

3. Socio-Cultural and Economic Conditions on the Seno Plain

Introduction

The peoples of Bankass and Koro Circles, in the eastern part of the 5th Region, live in open rolling country with numerous rocky outcrops, interspersed in the north and eastern areas with sand dunes. The land is typically Sahelian in character - mainly open bush with low tree density and next to no permanent supplies of water. The climate is hot but dry except from late May/early June to October when the rains fall and there is intense activity on the farms. From January to March the Harmattan winds blow from desert, and the nights become colder as the days get hotter. In March and April the heat is intense at mid-day, and the vegetation parched and brown, save for trees sprouting new leaves - a sign of Springtime, belying the severe lack of water for human and animal consumtpion. Cattle are herded to semi-permanent ponds and village wells for hand watering. The predominant ethnic group is Dogon, with a good sprinkling of other transient ethnic groups, plus Mossi, Peuhl, Rimaibe, Telem (the so-called "ancestors" of the Dogon) and Bambara.

Apart from certain caste groups and the Peuhl herders, agriculture is the main economic activity of the people. Gathering is also important, and apart from wood and grass for thatch and mats, tree crops such as locust-bean, baobab, tamarind, sheanut (karite), deleb-palm and ground plants such as horseradish provide important sources of food, building materials, oil and commodities sold to traders. Hunting is unimportant and fishing is not an organized activity; recently built permanent dams on the Bandiagara plateau are being experimentally stocked with fish. Dried fish is bought and traded from Mopti on the Niger River and the Bani river to the south of the Plain.

The staple food is grain - bullrush millet (Pennisteum typhoideum). Other cereals such as rice are not grown on the Plain for lack of water. Root crops supplement and give variety to the diet, namely; cassava, sweet potatoes, yams, bambara nuts and peanuts. Fonio, cowpeas and sesame are grown for consumption and trade. Cotton is grown and spun into thread by women, and is woven by men on narrow looms. Peanuts are processed locally to

yield both oil and paste, which are put to a variety of uses, as is shea soap and butter. Small family plots of spices, peppers and vegetables are grown where sufficient water exists mostly near the Bandiagara cliffs; production is limited to local trade and auto-consumption. Onions grown on the Bandiagara plateau are marketed on the Seno Plain and one will observe seasonal appearances of imported fruits (oranges, bananas) and locally grown papya, mango, guavas and occasionally limes. Seasonal wild fruits are gathered and consumed in fresh, dried and other processed forms but it is not known to what extent these fruits supplement minimum vitamen requirements.

In water supply for agriculture, the Seno Plain is not as favored as the Bandi gara Plateau where semi-permanent water supplies exist in rock fissures enabling extensive cash vegetable crops cultivation. The land area on the Pl in under cultivation is larger, averaging 1.5 hectares (about 2.5 acres)-* per family than that of the Plateau. The variety of crops however is limited by poorer soil quality; vegetables and legumes cultivation for cash and auto-consumption being limited by both the poorer soil quality and lack of water as mentioned above. The Pl in's overall millet production is larger, as are the granaries themselves, the millet being stored on the soil. Land overuse and erosion coupled with increased migration and pressure on the Pl in's land by plateau dwellers may in the long run upset the ecological balance.[1]

Cultivation is by hand, using dabas (hoes) of different sizes for different purposes. Long handled dabas are used to break up the soil from a standing position - a practice observed in extremely sandy areas of the Sahel (northern Upper Volta, Niger). Dabas are a tool superbly adapted to subsistence cultivation, which in turns limits their utilization with modern farming techniques. Inter-cropping is practiced. Manuring with green manure, house manure and cattle manure purchased or bartered from cattle herders is

*Enquete Agricole 1972-73: the average landholding is 1.2 Ha for the Mopti Region; Pl in farmers, calculated on household unit landholdings average from 1.5 to 2 ha, including wives' individual farm plots.

practiced. Burning to ashes of trees and scrub on newly cleared land is also practiced, the ashes used as fertilizer. Fallow periods generally run seven to eight years and is cleared by the slash and burn technique. Traction teams for plowing are being introduced into the area but are still a rare sight. For practical purposes farming can be regarded as limited to six to seven months of the year - May through November, depending upon the duration and quality of rains. 500mm of annual rainfall is considered excellent; 550 mm good.

The Dogons on the Seno Plain are directly related to those of the Plateau with whom they maintain a very significant economic and social relationship. Historical evidence, though there are as many theories on both the Dogon as anthropologists points of view, generally concur that the diaspora of the Dogon consisted of Plateau Dogon descending to the Plain during a period of land shortage; the Dogon perhaps ousting Mossi populations who retreated to the Yatenga across the present day frontier with Upper Volta.[2] Dogon are part of the Malinke ethnic group according to most anthropological accounts. The Plateau is still the "ancestral home" of the Dogon; major cultural and ceremonial occasions are institutionalized by Plateau Dogon. Plain Dogon trace their descent to ancestral tombs on the Plateau.

In the two target circles there is a mix of other ethnic groups (Peuhl, Rimaibes, Mossi) with a significant social and economic relationship between farmer and herder, a relationship not true on the pasture short Plateau.

Plateau millet yields are insufficient to feed the Plateau population. The latter's cultivation of onions and a few other cash crops (tobacco, tomatoes, bananas) by the unique rainfed rock faults results in a symbiotic relationship - onions sold by Plateau dwellers on the Plain buy sufficient millet for sustenance. "The relationship is old and complex and ultimately successful".[3]

Due to the lack of water for irrigation or gardening, agricultural innovation on the Plain has been mainly in technical advice (planting in rows) and extension of services and tools to augment millet production mostly by Operation Mils (Operation Millet) extension agents.

The Peuhl herders comprise in some areas a high percentage of the population (Diourgani arrondissement 34%). Their movements though not strictly transhumance, follow the seasonal patterns: moving north and eastwardly during the rainy season and in a southerly direction during the dry season in search of good grazing for livestock. Their dispersal and movements in small or large groups bring supplies of meat (sheep and goat rather than beef), manure, milk and dairy products to the agricultural settlements in return for which they purchase or trade supplies of millet, salt, cloth and other goods and services. The Dogon and Peuhl have a mutually complementary economic relationship. Dogon farmers keep small herds of livestock, mainly sheep and goats and small flocks of chickens. Donkeys are beasts of burden and horses used for inter-village communication and ceremonies. The Dogon have a reputation spread far beyond their frontier for breeding fine horses.

Some idea of the complex and varied technological basis of the economy may be gained from the following brief list of traditional occupational specializations carried on for exchange in market conditions. (see also Table 11). Men are builders, weavers, thatchers, butchers, tanners, leatherworkers, saddlers, native carpenters, blacksmiths, barbers, basket makers, calabash decorators, fetishers, mat weavers, drummers, malams (Koranic scholars), merchants. Most of these occupations are craft specialities practiced on commission or independent retail. Women: clean and spin thread for the weavers, process a wide variety of foods for sale as snacks, make pots, bent dye, dye clothe; they are also petty traders, traditional mid-wives, purveyors of medicinal plants and merchants. Their role in the political system is limited to their age and status within a family.

Trade is small ally complex and varied. Economic variations linked with regional differences are implied with the economic interdependence of communities and of producers within communities. Craft specialists are usually part-time, except for blacksmiths and potters and remain permanently in their rural settlements supplying local needs through the local markets. Full-time specialists include salt traders, traders of kola nuts and manufactured goods (batteries, kerosene lamps etc.) who can be classified as two-way traders; the

merchant taking goods from his own area for sale in other markets en route to a terminus (e.g. Mopti) returning with products from places he has visited. Thus one can say that to some degree women, but especially men participate in the exchange sector of the economy, whether by craft production, trading activity, or cultivation of crops for sale.

The necessity for a combination of production for subsistence and for exchange is met by farming the bulk of the household food requirements during the farming season, and by plying non-agricultural occupations vigorously during the dry season. Craftsmen and traders whose exchange activity is insufficiently rewarding often engage in both activities (farming and the specialty) throughout the year. Generally one finds non-agricultural activities carried on by men whose agricultural needs in terms of food production are met by women whose labor is used for farming, gathering and other heavy tasks. Traders for example are often men old enough to have fathered enough children by several wives all of whom farm the communal fields. An important quality of this combination of production for subsistence and exchange appears to be the high degree of freedom it permits individuals in adjusting their market requirements and degree of participation in the exchange secotr to suit their circumstances - or those of disaster, as for example, a drought.

Markets themselves are institutions of great significance both socially as well as economically. Markets are distinguished into those of greater or less importance, depending upon the routing of products through them, though all are held weekly on a fixed calendar day on the Plain. (The Dogon calendar week is five days and on the Plateau market days are rotated every 5 days). Markets of neighboring village-areas are held on a roughly rotational basis to enable specialist traders and craftspeople to attend each in turn.

Generally persons selling the same goods and services sit together in their own part of the market: the sellers of pots sharing one section, the butchers another, the cloth-sellers another, the sellers of grains and other foodstuffs, etc. are grouped together in different stalls or areas. Markets are usually in the center

of the village or town, with the exception of livestock markets held off outside the town or village limits. Market days really get going about noon, with the men assembling to sell their wares and purchase supplies, but also to meet friends and share news of mutual interest. There is a marked number of women trading at the markets, both Peuhl with their milk products and Dogon selling processed and unprocessed foodstuffs. Children also participate early in the markets once they are able to walk the distances to and from the market sites. Small boys tend donkeys and girls sell their mothers' processed foods or water. Once a woman has sold all her produce she will immediately pick up her belongings and start for home usually in the company of co-age women from her village; her unfinished duties for the day include preparing the evening meal. The men tend to linger longer, taking advantage of the conversation of their fellows, perhaps praying at the local mosque if Muslim and in general socializing. The markets are a wonderful sights - a delightful mix of ethnic diversity of the crowds attired in their best clothes, kinfolk and friends greeting in elaborate rituals, the elegance of prosperous men in flowing bubous and the constant hum or bargaining and gossip intermingled with gay peals of laughter. Apart from being a serious economic business, markets are obviously a weekly diversion for all and provide a social focus for the people attending.

Domestic Groupings and Marriage

Kinship is patrilineal — traced through persons of the male sex. Marriage is virilocal — the woman coming to live with the man usually in his father's compoung if its the man's first marriage. Marriages are preferably arranged by families, though individuals are arranging their own more so than in the past. In the case of the death of the husband or the woman being divorced, the children remain with the husband or husband's brother; the mother returning to her natal family. Marriages between children of brothers is preferred in Islam, but it is not known whether such marriages are more frequent with the successful protylization of Islam (85% of the population) or not. Women are responsible for the care and feeding of their children. The father usually takes charge of clothing his sons and the mother her daughters.

The domestic unit is generally an extended family and as such functions as a single unit for the production and consumption of food, the payment of tax, the provision of farm tools and seed, the common exploitation of communal land, economic trees, and other resources. An important aspect of the Dogon division of labor is the prime inclusion of women in active farming.*

Despite variations between concessions (compounds), they follow a basic pattern, elaborations being based on wealth and status of the individual household wealth, or structure of the domestic group. The compound contains huts for women and unmarried men and granaries. Each wife has her own hut where she keeps her possessions, cooks and sleeps with her young children. The husband in a polygamous marraige visits with his wives two nights in turn; on those days when the wife is responsible for preparing the household food. When not occupied in preparing food, women engage in the making of processed food for sale, spinning, gathering wood, fetching water, gathering wild leaves and plants, child care, and agricultural activities - cultivating, weeding, harvesting, threshing, etc.

* In Sahelian societies with centuries old Moslem traditions, women are totally excluded from farming and gathering wood - their economic activity tends to trading, their seclusion offering a leisure milieu for craft and trade production.

The marriage itself is not highly ceremonialized contrary to other areas in Mali. No brideprice as such exists, though the bride's parents and the girl herself will receive small gifts during courtship. The new bride more or less appears in her new husband's concession and takes up residence. The ranking of co-wives in a polygamous marriage is by seniority, in terms of the wives' marriage order to the common husband. Polygamous marriages are favored in view of the labor contribution of wives to agricultural production and the desirability for offspring as economic security in old age.

By Muslim law women are minors. By the Code Familialge both men and women are not minors after eighteen years of age. It is not known whether women can act on their own behalf in administrative affairs, but it is assumed that even if legally allowed they would be reluctant to do so. Under Koranic law, females can not represent themselves in adjudication, neither can children.

The political system commences with the smallest unit, a bush village wherein a chief resides. Larger villages have two or more sub-divisions or quartiers with a chief and council. Succession to chieftanship varies, but recent history suggests that election is based on communal election (by men) without political interference from administrative authorities. The main function of the chief is the collection and remission of authorized taxes to his superior who in turn passes it on to the national coffers. Chiefs have limited juridical powers in such civil cases as debts, land rights, divorce etc. which do not involve punishment by imprisonment. They are responsible for the repair of the markets and paths through the village and the mosque if it exists. At the arrondissement level, the Chef d'arrondissement, a civil servant is responsible for the administration of his arrondissement, usually containing 45 villages. The Chef in turn is responsible to the Commandant of the Circle, or which there are 7 to 8 per Region. The role of the traditional chief appears fairly viable, despite the supplantation of some his leadership functions by the administration.

Summary

The population of the Seno Plain is primarily subsistence farmers, with all members of family contributing their labor. The line between survival from one harvest to the next is very thin; subject to the vagaries of rainfall and destruction of stored millet by pests. It is estimated variously that 12% to 40% of granary stored millet is destroyed annually.[1] Though this may be nothing new to the Dogon, contemporary dynamics within their society are effecting changes. There is for example a high rate of mostly male exodus towage-earning jobs on the exterior - to pay taxes and finance debts. Young men and boys with a few years of primary schooling are no longer keen to work on the land and either become a non-productive parasite to their families or leave for the towns and cities where they become another statistic of the urban unemployed. If population pressure on the land is indeed increasing (either by migration and/or overfarming) it will have a negative effect on herders' pasturage rights.

Better health care though not reducing infant mortality has reduced the mortality of old people. An awareness of modern technology such as medicines and bicycles and chemical fertilizers have brought the people peripherally into the twentieth century while their buying power remains at a subsistence level. Social services barely touch the vast majority of villagers. Health services in particular suffer from a weak delivery system: a curative rather than preventative medical orientation, chronic understaffing of arrondissement positions, and a curious (to me anyperson) reporting system. Guinea worm and malaria are the most common afflictions in the area; yet official medical reports omit mention of the guinea worm. At the same time Operation Mils extension personnel complain that the guinea worm affliction seriously affects agricultural production. In Diallassagou the poor production rate is directly blamed on guinea worm. Large numbers of the working population are totally incapacitated during the rainy season, neither able to remain standing nor work, until the worm slowly and finally breaks through the surface of the lower limb/s. The rural people consider the affliction "natural" - or in the words of the chief of Toroli, it comes from "goods

brought in from Koro"; they do not seek medical assistance, hence the medical services do not report the disease, nor attempt to treat the causes (infected drinking water) with preventative education. The rural health delivery system is not organised in such a way as to bring adequate healthservices to the rural families.

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and

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4. Demography

Available data of fairly recent origin on population distribution and economic activities within the two target Cercles are delineated to the arrondissement level.[1]

Table 1* Population of Bankass Cercle by [illegible]

Men	Males 0-15	Males 15-60	Males 60 plus	Females 0-15	Females 15-60	Females 60 plus	Total
Baye	3307	4554	454	3201	3969	347	15,322
Centrale	2302	3362	627	2491	3393	264	13,197
Diallassagou	6705	8868	730	5597	7874	673	30,493
Kani-Bonzon	2600	3368	319	1383	3053	303	11,833
Ouenkoro	1621	2195	264	1513	2017	229	7,358
Séguié	2752	3436	401	2413	2832	305	12,135
Tombura	3737	4341	434	3303	4334	417	17,304
Total	23522	31,474	3,329	20,493	27,574	2,630	108,877

Population of Koro Cercle by [illegible]

[illegible]	7332	9223	793	6747	8033	500	33,026
Diankabou	4263	5539	524	4342	5125	557	22,330
[illegible]	3901	5302	554	3507	4712	451	18,720
[illegible]	2452	3165	192	2123	2742	150	10,[illegible]
Koporo-Ménisna	4886	6386	690	4484	5752	526	22,824
Madougou	4055	5035	445	3708	5335	576	19,806
Toroli	3165	[illegible]	312	2608	[illegible]	627	15,621
Total	31,099	41,173	4,110	27,[illegible]	36,653	3,217	143,[illegible]

Bankass and Koro combined equal an area of 17,812km^2 with a population density of 18.3 and 12.5 km^2 respectively. There are 255 villages in Bankass Circle and 300 in Koro.

* Reluctance to report taxable persons often biases data gathering. In the above data this is doubtful. The tax structure taxes all persons male and female from age 14 to 60 with the exception of women with more than four living children.

Breakdown of demographic data of youth 0-19 years of age not being available, one can surmise that the high proportion of youth at 30% of the total, of ages 0 to 15 is comparable to UN demographic data which figured 58% of Mali's total population at under 19 years of age.* The proportion of male to female populations is:

M	134,707	52.9%
F	118,326	47.1%

which compares favorably to male/female population distribution as follows in the following countries (Population in thousands):[2]

Ghana	1960	M	3,400	50.6%
		F	3,326	49.4%
Kenya	1969	M	5,482	50.1%
		F	5,460	49.9%
Nigeria	1963	M	28,111	50.5%
		F	27,558	49.5%
Bolivia	1950	M	1,326	49.0%
		F	1,378	51.0%
Peru	1972	M	6,786	50.0%
		F	6,785	50.0%

The data refute quips by both educated and uneducated men in the area as to how "rare" a breed they are in comparison to the number of women, whom they consider outnumber men substantially. In fact this attitude may reflect a defensive attitude towards the custom of polygamy; more probably it reflects the pattern of marriage itself. Young women are married at an earlier age (13 up) than young men who must await land

[2]Source: UN Statistical Yearbook, 1973, 1971, 1969, 1967, 1965.

*UN figures also state 63% of the total population at under 25 years with 80% of them living in rural areas. With publication of the national December 1976 census all the above figures should be verified.

inheritance in order to start a family rendering the available pool of marriagable women smaller. Males consistently outnumber females in all age brackets by about 5%.

The proportion of children not at school (or dropouts) is 80%. Education of girls lags behind boys both in terms of school enrollment and longetivity of attendance. There are primary schools to the fifth cycle at all arrondissements; two schools to the 8th cycle at Bankass and Koro respectively, a 10th level secondary school at Bandiagara on the plateau. Graduates from Bandiagara proceed to the Lycee in Sevaré for studies towards the Baccalauriat.

Table 2

Number of Villages and Village Populations by ZR

Bankass Circle

	NUMBER OF VILLAGES IN GROUP					TOTAL NUMBER VILLAGES
	to 100 persons	101 to 200	201 to 500	501 to 1000	1000 plus	
Baye	3	5	12	10	3	33
Centrale	2	1	19	4	2	28
Diallassagou	4	12	43	12	5	76
Kani-Bonzon	3	6	17	6	1	33
Ouenkoro	0	6	13	2	1	22
Ségué	8	11	17	5	1	42
Sokoura	0	5	16	9	4	34
TOTAL	20	46	137	48	17	268
Koro Circle						
Centrale	14	13	27	19	5	78
Diankabou	4	18	31	12	1	66
Dinangourou	NA	3	7	8	3	21
Dioungani	1	N	5	11	1	18
Koporo-Kéniéna	NA	10	20	10	5	45
Madougou	2	3	25	13	2	45
Toroli	0	14	17	7	2	40
TOTAL	21	61	132	80	19	313

The most common village population by almost 3 times over the next grouping is between 200 to 500 inhabitants; a considerably smaller village density than that of the Bandiagara plateau, where the physical terrain appears to require higher population densities of villages. This is probably due to the relatively more land area available for housing on the Seno plain, though it might also be due to the relatively more recent establishment of the Dogon on the Plain. Historically they are said to have descended from the plateau to the plain, rather than vice versa.

Villagers tend to section themselves into blocks or quartiers once the total population exceeds several hundred inhabitants. Each quartier having a council of male elders who consult with the village chief on affairs affecting their particular community. Since villages with populations of a thousand can have as many as five quartiers

and as many or more political, social and religious rivalries, developmental workers tend to concentrate their efforts in smaller sized villages of a hundred or so inhabitants. This is especially true in introducing intermediate technology such as well pumps, millet mills, chicken feeders, hand cultivators etc. where the local citizenry are expected to manage the equipment and/or financial profit. Jealousies between quartiers over equal access to technological assistance and limited technical assistance personnel have embroiled the latter in social and political altercations beyond their ability (or function) to pacify and have led to cases of mutual hostility. One such technician with seven years experience in Koro cercle makes it a standing rule for his newly assigned staff to initially work only in very small villages until the staff can build up experience working with the peoples involved gaining an understanding of the cultural milieu - this understanding appears to pay off given the respect the personnel have for the peoples they assist and vice versa and the cooperation extended by the farmers towards realization of communally designed projects.

TABLE 3

Percentage of Active Population to Total Population by ZER

ZER	Active Population Actual	Active Population %age	Inactive Population Actual	Inactive Population %age
Bankass				
Baye	8523	53.8	7299	46.2
Centrale	7255	54.9	5942	45.1
Diallassagou	16742	54.9	13751	45.1
Kani-Bonzon	6726	56.8	5112	43.2
Ouenkoro	4209	53.6	3629	46.4
Ségué	6318	51.8	5867	48.2
Sokoura	9375	53.5	8129	46.5
Total	59,148	54.3	50,729	45.7
Koro				
Centrale	17311	52.5	15715	47.5
Diankabou	12504	54.4	10476	45.6
Dinangourou	10214	54.3	8576	45.7
Dioungani	5907	54.6	4897	45.4
Koporo-Kéniéna	12140	53.1	10684	46.9
Madougou	11230	56.6	8576	43.4
Toroli	8505	52.2	7186	45.8
Total	77,811	54.1	66,110	45.9

By "active" is meant working population, excluding infants, very young children and the old and infirm. By work is meant wage labor, and non-renumerative agricultural labor. Labor towards processing of foods for barter or gifts is not included.

TABLE 4

Active Population by Primary & Secondary Occupation

Bankass Circle

OCCUPATIONS	By Sex Male	Female	Total	
PRIMARY:				
Farmers	25,846	20,138	45,984	69%
Herders	5,266	1,850	5,116	
Artisans	733	3,677	4,410	
Civil Servants	165	21	186	
Merchants	73	719	792	
Farm laborers-waged	23	4	32	
				53,305
SECONDARY:				
Farmers	2,127	165	2,292	
Herders	347	309	656	
Artisans	2,715	305	3,020	
Civil Servants	NA	NA	NA	
Merchants	718	589	1,307	
Farm laborers-waged	NA	NA	NA	

Koro Circle

PRIMARY:				
Farmers	34,753	31,100	65,853	81%
Herders	4,186	2,822	7,008	
Artisans	39	36	175	
Civil Servants	232	42	274	
Merchants	16	5	21	
Farm laborers-waged	NA	NA	NA	
				73,321
SECONDARY:				
Farmers	3,919	1,050	4,969	
Herders	672	15	687	
Artisans	1,349	436	1,785	
Civil Servants	NA	NA	NA	
Merchants	133	5	138	
Farm laborers-waged	NA	NA	NA	

The overwhelming activity is farming, with both males and females contributing about equally to agriculture. A disparity in figure reporting should be noted between Table 3 : where the active population is 59,148 persons and the above table which totals a higher active active group of 63,305 for Bankass and a slight increase also (77,321) for Koro. The female figure of 3,677 for primary artisan activity appears disproportionately high in relation to inquiries in the field and may account for the discrepancy.

Since the Peuhl herding population has a high degree of mobility, herders may be under or over represented. For example in the Diamangou arrondissement of Koro the Peuhls comprise 75% of the total population June to December; but from December until the rains in May-June the herders migrate their flocks south and west out of the arrondissement. The above figures represent an approximation of herders throughout the year.

The Enquête Agricole 1976-71 presents data showing a slightly lower proportion of farmers as percentage of total population:

Village Circle	Total Pop.	Working Cultivator			% of Cultivator of total Pop.
		Men	Women	Total	
Pétaka (Duentza)	1208	390	321	711	59%
Madougou (Koro)	1982	613	592	1205	61%
Dimabal (Bankass)	1602	511	439	950	59%

TABLE 5 Ethnic Groups Percentage by CER

	Total Pop.	Dogon	Peuhl	Rimaibes	Mossis	Other**
Bankass						
Baye	15,822	20%	6%	2.3%	1.4%	70.3%
Centrale	13,197	65.7%	19.7%	8.7%	1.0%	4.9%
Dialla-Ssagou	30,493	68.3%	16.6%	4.7%	2.7%	7.7%
Kani-Bonzon	11,338	91.9%	7.5%	.3%	.1%	.2%
Ouenkoro	7,838	6.9%	27.2%	42.6%	2.9%	20.4%
Ségué	12,185	85.4%	10.9%	2.9%	.2	.6%
Tokoura	17,504	19.6%	15.1%	5.7%	3.5%	56.1%
Total	108,877	52.3%	14.2%	7.0%	1.9%	24.6%
Koro						
Centrale	33,026	84.81%	2.4%	.1%	9.8%	2.9%
Diankabou	22,980	80.0%	18.6%	.9%	.1%	.4%
Dinangou-rou	18,790	60.7%	8.0%	.6%	6.3%	24.4%
Dioungani	10,804	38.0%	54.0%	2.5%	4.0%	1.5%
Kop-Kéniéna	22,824	89.2%	4.1%	.0%	1.5%	5.2%
Madougou	19,806	84.9%	12.0%	1.6%	.7%	.8%
Toroli	15,691	83.3%	8.6%	2.5%	3.5%	2.1%
Total	143,921	77.9%	11.9%	.9%	4.1%	5.2%

The Bankass Circle has a fair number of Bambara farmers concentrated primarily in two arrondissements. Koro is overwhelmingly Dogon in composition. In an informal attempt to analysis the Dogons' attitude towards functional literacy . I found them flexibile; that is they appear to appreciate the inherent difficulties of developing materials to suit each of the many Dogon dialects. They opt for functional literacy in Bambara and Peuhl in that order <u>if</u> Dogon FL classes are not feasible at this time. The two Catholic Missions working on the Plain have developed FL materials & conduct church services and classes in Dogon dialect. Functional Literacy specialists are reco-

**Primarily Bambara speaking people. Baye has the highest concentration of Bambaras. The Centre D'Animation Rurale in Baye, the only CAR in the Circle conducts training in Bambara.

mmended to consult the materials for possible adaptation, as the Missions have also assembled a Dogon-French dictionnary. To my knowledge the regional FL organization, DNAFLA based in Mopti, has been discouraged from developing Dogon FL materials due mostly to the dialects profusion.

TABLE 6 Number of Persons in Family Groups and Owning Plows

Number of family members	Number of family groups by size	Families with Plows
Bankass Circle		
1-3 persons	1,501	5
3-5 "	2,479	4
5-10 "	4,745	19
10-15 "	1,793	21
15 plus "	1,456	16
Total	11,974	65
Koro Circle		
1-3 persons	1,934	4
3-5 "	5,434	6
5-10 "	6,617	31
10-15 "	2,216	25
15 plus "	1,[illegible]	13
Total	16,150	82

The most common family unit size is between five to ten persons. This unit usually has two wives per husband especially if he is an older man. Marriage among the Dogon is very informal an arrangement contracted between two parties' families; no brideprice is paid though the potential husband may donate gifts to his fiancée and her family. No ceremony is attached to marriage itself, the new bride simply entering her husband's compound. Very few marriages are registered with the civil registrar (or divorces) hence it is difficult to ascertain marriage stability within the family unit. The number of children per family unit remains stable, not counting mortality as children remain with the father if the mother is divorced or dies. If the father dies the children become the guardians of their father's brother/s.

Major cash outlays, such as for plows, school expenses* and medicines, and credit payments for equipment require a financial solvency guaranteed by the productivity

* The Governor of a Malian Region instigated an uproar recently be requiring parents to clothe their school children in standardized uniforms. He later rescinded his decision when parents withdrew children from schools - the financial outlay for clothe and tailors' expenses was beyond their means.

of the family (read agricultural unit) in good years and bad - rain or drought. The higher the number of working members of a family the higher the labor input the higher the productivity and therefore disposable income.

Land holdings at the same time remain fairly constant - their expansion limited by family size (labor), distances between plots of land, fallow periods, and new land availability itself.

Land holdings average 2 hectares in the Region and about 1.2 hectares per family on the Plain. Land is divided between one to four plots requiring long walks to and from plots during cultivation and for transport of the harvest. 42% of all farmland is worked by 1-5 persons in the Region (includes dry land rice) which correlates with family units of 3 to 10 members.

Disposable income then appears to relate to family size more than to landholding size. Though data to correlate plow ownership as an indicator of disposable income with landholding size is not available. (Just because a farmer owns a plow does not imply it is being used; lack of oxen, or the death or ill health of a traction animal may relegate the plow to storage).

TABLE 7 Livestock per Head by ZER

	Cattle Labor	Cattle Other	Donkeys Lbr	Donkeys Other	Horses Lbr	Horses Other	Sheep	Goats	Pigs
Bankass									
Baye	19	6,614	9	340	NA	155	5,406	11,658	40
Centrale	NA	7,469	NA	404	"	231	3,858	3,390	NA
Diallassagou	6	14,973	NA	985	"	823	7,834	6,195	NA
Kani-Bonzon	2	3,066	2	326	"	245	3,372	4,417	NA
Ouenkoro	6	7,147	NA	269	"	193	3,711	3,992	NA
Ségué	10	4,886	NA	400	"	354	2,656	2,509	13
Sokoura	80	10,329	NA	563	"	379	2,881	2,854	NA
Total	123	54,4[illegible]	11	3,287	"	2,380	29,718	35,015	53
Koro									
Centrale	32	4,758	14	1,258	NA	332	8,643	10,809	NA
Dinkabou	31	8,776	4	574	"	105	3,789	12,451	NA
Dinangourou	NA	7,3981	NA	668	"	201	3,241	8,773	NA
Dioungani	NA	9,857	NA	273	"	185	774	5,799	NA
Koporo-Kéniéna	17	4,014	2	765	"	358	5,579	6,614	NA
Madougou	NA	5,805	26	931	1	241	5,107	5,635	49
Toroli	4	3,905	3	352	NA	211	5,665	5,629	NA
Total	84	44,513	49	4,821	1	1,633	32,748	55,710	49

Horses are used for inter-village communication and ceremonial purposes, and are the most costly of all livestock. Dogon bred horses are renowned for quality and endurance throughout Mali and her neighbors and sell for about 250,000MF. Traders travel from other regions to the Plain to buy horses. It is not known whether sale of horses outside the area comprises a sizable marketing system or not; a yearly caravan of 300 head is driven from the southwest part of the Plain to Dakar.

Donkeys are par excellence the most common means of transport of goods (other than the human head) to and from markets, and agricultural produce to and from fields, villages and markets. There is very little oxen or donkey traction in the area. Various reasons are given: tilling would require abandonning the traditional mounds millet is grown on; oxen are too weak at the height of the dry (and work) season to pull; donkeys are considered "tortured" when in traction

harness and will incur religious vengeance upon the driver; the plow furrows too deep into the soil; traction plowing equipment is too expensive.

Though chickens were not included in the above survey, they are a fairly common sight scavenging in village compounds; compared to other areas in Mali they are not numerous perhaps as a result of a recent poultry epidemic on the plateau which spread to the plain. Chickens are rarely eaten except upon ceremonial occasions and then primarily by males; chickens provide a quick source of cash through sale at the market. Chicken eggs are a dietary taboo for women though I was told that this restriction is starting to break down. Pintade* eggs are eaten during the soudure - the critical months before harvest - mostly by children.

Pigs comprise but a tiny part of the livestock population, confined mainly to non-Muslim groups such as the Mossi. Four or five sheep and half a dozen goats along with chickens comprise a family's livestock with the exception of cattle. Boys tend the sheep and goats and are responsible for watering them and shooing them away from cultivated fields - not always successfully to the great merriment of the children and the consternation of adults.

Cattle ownership and herding is complex involving reciprocal economic and social relations between the herder and the farmer. A simplified example is as follows: a Dogon family on the Plain has what they call "une famille Peuhl" - a Peuhl family with which it is socially and economically "friendly". The relationship is of long standing being mutually inherited by both the Dogon and Peuhl families. The Dogon family will give the Peuhl family a cow to her and pasture. The herder includes the cow with other similarly obtained stock, and depending upon grazing and watering conditions and his rights to access thereof cares for the stock in a semi-transhumance pattern. In return for the Peuhl's services the Dogon family receives milk and milk products processed by Peuhl women. Before cultivation starts with the rains the Peuhl herds the cattle into his clients' corrals overnight where the manure thus collected is used to manure fields. The Peuhl retains for his services the calf of the cow to add to his own stock. Both Peuhl and Dogon barter and exchange goods and services; the Peuhl buying for example millet, the farmer selling or bartering millet stalks and grasses for the typically rounded Peuhl huts, and so forth.

*Pintade are a semi-domesticated African guinea hen who lay eggs in the bush.

This oversimplified version has many variations on a theme throughout the Plain and does not take into account contemporary social and economic dynamics such as population pressure upon herding land for farming and the livestock marketing system within and external to the area. The farmer-herder relationship is important in at least one aspect to this paper - the availability of milk and dairy products in the diet, beef being rarely consumed.

Not all cattle are thus herded - some remain around villages and are watered at village wells. Their numbers are limited by the scarcity of forage and water both. If traction oxen are to be introduced in any great number in the future, provisions will have to be made for their feeding and watering during the very season when the oxen need to be at maximum weight and strength - the dry season. Pit silos is a possible answer using this simple technique successfully introduced in the Segou Region, whereby grasses thus stored are fed to traction animals March through May.

Chickens are owned, taken care of and sold by men, women and children (Table 11p49). Poultry constitute the only form of stock by which all members of a family unit may profit, albeit youngsters somewhat less than their elders. A young boy can be granted sole proprietorship of his first chicken by his mother or father at a ceremonial occasion like his circumcision. Depending on his disposition or need he can further breed the chicken or sell it for cash to pay for schoolbooks or pencils for example.

In terms of introducing income-producing projects into a community to benefit equally all its members and capitilize upon traditional attitudes, improved chicken raising methods on a small scale could be most complementary, both to tradition and actualization of self-help community dynamics. At the same time such a project should be assisted only in villages having access to a market. A market is simply composed of a high enough concentration of civil servants who can regularly afford the 400MF (.75cents) price. Improved chickens projects can provide ideal conduits for organizing groups of boys and girls into a nascent young farmers' organization.

Demography

1. Statistique de la Population, Operation Mils Mopti 1972-73

2. United Nations Statistical Yearbook, 1973, 71, 69, 67 and 65.

5. Agricultural Production - Communal Fields

Much has been researched and written in recent years on the roles of women in agricultural production in sub-Saharan Africa,[1] namely that their contribution to productivity of both subsistence and cash crops is enormous * and yet their access to modern agricultural technology and credit extremely limited, in comparison to the access of men. This situation holds true for the target zone as well.

Table 9 is addressed to the communal field - those landholdings worked by all members of a family unit but owned by the male head of family. The latter makes almost all the decisions concerning various phases of agricultural production while he, his wives and children old enough to work in the fields actually perform the labor. Youth has a high degree of participation in agricultural activities, co-equal to that of parents.

The use of modern techniques is almost totally confined to males - both husbands and male youths. This includes technical inputs such as fertilizer, planting in rows instead of mounds, the use of plows, and use of agricultural credit to finance technical inputs. In comparison with Table10 which delineates the division of labor on the small womens' plots, there is no use at all of modern agricultural inputs either technical or in terms of credit. In most cases the respondents in the survey answered that modern agricultural methods simply did not exist for the womens' fields. In terms of use of modern agricultural techniques then, women lag behind the men.

* see Introduction

TABLE 9

Decision Making and Participation in Agricultural Activities*

Survey Group/	Decision of Activity	Participation in Activity
choice of crop/seeds	H	HWy
preparation of soil	H	HwY
seeding	Hw	HWY
weeding & cultivating	H	HWY
harvesting	H	HWY
threshing	H	hWY
transportation to village	H	hWY
" " market/s	Hw	hWY
allocation of female & youth labor	Hw	hWY
Use of modern agricultural techniques	H	HY
participation of the collective unit	H	HwY
procurement of agricultural credit	H	HY
petty trading	Hw	HWy
sale of subsistence/crops	H	HWy
sale of cash crops	Hw	HWy
disposition of revenue - subsistence cereals	H	HWy
cash crops	Hw	HWy
savings	H	Hwy

Key:

H = Husband decides or participates in activity
W = Wife/wives " " " " "
Y = Youth " " " " "

h = husband contributes to decision or participation in activity
w = wife/wives " " " " " " "
y = youth " " " " " " "

*Note See Appendix G for methodology of surveys.

This situation may imply a lower production rate than would otherwise be ture:

> As a result of the attitudes of the extension service the gap between the labour productivity of men and women thus continues to widen. Men are taught to apply modern methods in the cultivation of a given crop, while women continue to use traditional methods in the cultivation of the same crop, thus getting much less out of their efforts than men. The inevitable result is that women are discouraged from participating in agriculture and are glad to abandon cultivation whenever their husband's income makes it possible.[2]

Though the "inevitable result" in the case of the Seno Plain may be yet a long way off, the implications of the agricultural policy are provocative.

Women do want agricultural assistance,(as do young girls and boys) judging by their attitudes and responses towards assistance offers. Operation Mils agents overwhelming agree but do not themselves offer extension services to women as farmers. See appendix B and G.

Men's labor input on the farms consist of clearing bush before the land is turned over, seeding, cultivating and harvesting. Their labor input into threshing, transporting harvest to village and markets and treating the produce (drying) is minimal compared with the input of women and youth. Men's labor is confined to a short period whereas work done by women and children continues almost throughout the year. Women and youth repair granaries and dry and prepare millet for storage well into January, well beyond the growing season. The treatment of millet with local insecticides alone involves tremendous labor: collecting the ashes, sifting them, administering them to dried millet and finally storage. On the whole women's contribution to agriculture is equal to that of men and youth, but their family care

responsibilities such as food preparation (pounding millet alone takes at least two hours a day), and the time spent on cultivating their own fields and processing its productsto feed the family or sell at market, means that their labor is intensive throughout the year as it is throughout the day. Very little time indeed is left over for leisure activities or activities devoted to self-improvement. Though the female peasant farmer should be equally targeted for community development projects, her contribution to same will be insignificant given her present schedule of responsibilities.

Normal work week - dry season and wet season[3]

Preparing food, milling etc. to	4 hrs a day	21 hrs a week
Collecting condiments in bush	2 hrs a day	6 hrs a week
Fetching water - dry season	3 hrs a day	21 " " " or more
" wet season	2 hrs a day	14 " " "
Fetching wood	4 hrs a day	16 " " "
Preparing foods for market	3 hrs a day	3 " " "
Walking to-from market	2-3 hrs depending on distance, one a week	
Walking to-from fields	3 hrs	18 " a week May-October

Not all the above activities are carried on a daily basis depending upon seasonal variations, proximity of markets, etc. but one can start to appreciate the heavy labor responsibilities of the feminine sector, not even taking into account child care, physical condition, pregnancies, etc. The introduction of simple labor-saving devices to benefit women and lighten their workload could benefit the health of both women and the family unit and ultimately increase agricultural productivity.

Womens'Fields

Women on the Seno Plain are better off than their sisters on the Bandiagara Plateau who have no access in most of the area to land for themselves. Plateau women say that even if they had land to garden, they would have no time to spend cultivating it. Women on the Plain do not own land nor have rights to it; land plots are usually assigned to wives by the husband. In these small plots the women are expected to grow the family foods used in the sauce and various condiments. They can and do grow sesame, fonio, cotton, peanuts, millet and legumes. Excess produce is sold by the women and is their largest single source of income. As the Table demonstrates, the husband, upon whose land she cultivates, advises the women in every facet of decision-making concerning agricultural production in the petit champ. The actual agricultural labor input is confined to women and girls. The disposal of produce as gifts or renum-ration for outstanding debts is decided by the women with the husband's advice and because of the heavy social responsibilities upon women, subtracts from saleable produce. Young girls make a little money by helping their mothers sell produce at market.

If a woman is divorced she has to relinquish her cultivation of the petit champ. If she returns to her family home, as is usually the case if a divorced cannot or does not remarry, she has no access to land, and hence income.

Youth Unmarried girls have no access to their own land, neither do boys. Young married men inherit land from their father's brother, or if the father is still living may be granted a small plot by the latter.

TABLE 10

Decision-Making and Participation in Agricultural Activities in Women's Individual Fields

	Decision of Activity	Participation in Activity
Choice of crop/s	hW	hWy
Labor	hW	WY
Transportation to village	hW	hWY
" " market/s	hW	WY
Allocation of labor female & youth	h hWy	WY
Use of modern agricultural techniques	NA	NA
Procurement of agric credit	NA	NA
Group labor-female	hW	NA
Sale of produce	hW	hWY
Disposition of revenue	hW	hWy
Use of produce for food	hW	HWy
Savings	hW	hWy

Key:

H = Husband decides or participates in activity
W = Wife/wives " " " " "
Y = Youth " " " " "

h = Husband contributes to decision or participation in activity
w = Wife/wives " " " " " " "
y = Youth " " " " " " "

Marketing and petty Trading

As the data show men determine which portions of the harvest (both subsistence and cash crops) to sell but both men and women carry out the major portion of the marketing activity. With produce from her own field, the woman predominates in decision-making and marketing her produce.

Savings

few savings develop because farms are too small and too poor to yield more than subsistence earnings. Of course livestock can be considered as savings, as well as goats, chickens and sheep. It would appear from the Table on Secondary Economic activities page49, that decisions to sell small livestock for funds is shared between husbands and wives. The entire question of savingsmay well be moot since so little cash is involved, but what there is, is entirely handled by the husband though the women and children are expected to contribute their share. The expansion of the modern wage earning sector, albeit for the time being very small, may find youths and young working women contributing a large share to the family savings.

Goods which a woman takes to market are not always surplus i.e. the amount which remains after the subsistence needs of the family are met. Women have considerable responsibility to provide household goods like kerosene, soap, matches, condiments or dried fish for sauces from their own resources. These responsibilities or sudden demands for cash, e.g. school or medical fees may result in a decision to sell produce, which strictly

speaking ought to be retained for subsistence purposes. There is also some question (Guggenheim 1977)[4] as to overselling of millet immediately upon harvest to meet quotas set by Operation Millet resulting in deprivation during the dry season and soudure. The liklihood of a family selling needed produce cannot necessarily be determined on the basis of the husband's financial situation, whether he is resident in the household or not should he be a transient migratory worker. While in Western middle class families, the man is typically the major provider, in the this milieu the woman is often the primary breadwinner. The husband may feel no particulr obligation to provision the household.

Summary

Though able bodied persons in the family unit contribute their labor equally to agriculture, not all benefit equally. Youth do not seem to gain renummeration for the labor, and like women do not have rights to land. This may account for the high rate of exodus of young unmarried males from the region. Men are the ones who make decisions as to the use of modern inputs (fertilizer, new seeds, plows, etc.) because it is primarily men who benefit from agricultural extension services. Women know less about such technological advances, preferring to rely on tried-and-true methods and natural fertilizers for example. Once a decision is made to invest in a modern input, the woman as farmer does not gain an education, as the man works with his sons on the new input rather than with his wives. However there is no indication that men and women differ in their willingness to experiment with new technologies.

Farming cooperatives are uncommon in the area, and therefore a decision to join or not does not arise. But the data implies (obtaining of credit for example) that joining a cooperative would be the perogative of the husband. Cooperatives* designed for women and youth around the processing of foods (oils, pastes, karite, etc.) may be acceptable to males and one in which women could be counted on to participate - if only to improve the quality and quantity of the products, if not also to lighten their arduous labor.

*"Cooperative" in Mali has come to mean almost any grouping of persons arou d an economic activity, formalized or not. It is here defined as a grouping of persons arou d a seasonal activity for communal production of a traditional processed product to benefit from a labor aid device.

Agriculture

1. ECA UN Commission, op cit.

   Irene Tinker et. al. Women and World Development

   Diarra, Fatoumata A. Les Femmes et le Developpement en Afrique, Report on Conference, November 1976, Niamey Niger. IDEP, Dakar.

2. Boserup, E. op cit pp. 55-56, 1970.

3. Survey was conducted during the dry season. Skapa.

4. Guggenheim op.cit.

Secondary Income Producing Activities

Overwhelmingly the people of Bankass and Koro that are economically active (54%) are farmers, millet production constituting the prime source of food and income revenue. A small number of persons (733 in Bankass, 89 in Koro) gain their livlihood primarily from artisanship occupations - the caste groups making pots, blacksmith goods and leather goods. A substantially higher number of para artisan-farmers exist (2,715 and 1,349 respectively in the circles) whose primary activity is farming but hold active artisan jobs during the agricultural off-season. Their work contributes to the supplying of essential agricultural and home utensils such as dabas (hoes), water buckets and rope, water bags (goatskin), dyed clothe, sacks for transporting cereals, woven clothe and the ubiquitous clay pots used for fetching and storing water and cooking. Strict caste delineations are observed for blacksmiths and potters - the potters being women of the same caste as blacksmiths with whom they marry, and leatherworkers; apparently less so for weavers, one of whom is usually active in every medium sized village (up to a 1000 persons) supplying local demand for clothe. Caste groups work on commission, and if transient are fed and clothed by the family making the order for their product.

Both men, women and children of the farming population rely on a variety of activities as a source of secondary income, some of the items produced being bartered. These include: the making of mats, the fashioning of calabash gourds into bowls and ladles and covered containers, indigo dyeing, the making of soap from ashes and the rendering of karite, brewing an astonishing variety of drinks from dolo-beer to fruit juices sold at

markets, karite butter, repairing calabashes, processing foods and wild plants for sale. The activities appear to have a precise division of labor between sexes. To appreciate the applicability of secondary income producing activities to the community and theirpotential for expansion under the Community Development project the following examines the activities in some detail. See Table 10.

Weaving from the growing of cotton to the finished product - sack, shirt, a woman's "pagne" (wrap-around) involves a number of processes. Cotton is generally grown on soil too leached for millet just prior to being let fallow. The cottonballs are plucked and cleaned by women and children and spun into thread by the nimble hands of adult women, the excess unspun cotton being sold at market for cash income by men. With the cotton spun, the husband may commission a weaver to weave; the order will depend upon whose cotton is used for the commission. That is, whether the cotton was grown on the communal family field or the individual woman's plot; in the latter case the husband will compensate his wife's labor. Usually women commission weaving for cloth to clothe themselves and their children and for the type of shawl used to carry infants on their backs. Women generally are responsible for clothing their female children and the husbands their male children (though this custom varies widely within the region - a husband may outright give a wife cotton to spin and in exchange for her labor pay for the weavers' fees on her behalf), and generally commission the weaver's labor for clothe woven from the threadshe has spun. After the clothe is woven, it is dyed with indigo or mud-urine by a women's caste group (the area of Baye produces very intricate designs) again on commission. This chain of processes completed the cloth is ready for use. Very little

TABLE 10

Secondary Income Producing Rural Activities

	Decision of Activity	Participation in Activity
Weaving - production	HW	HW
sale	HW	HW
disposition of revenue	HW	HWY
Leatherword- production	H	HWY
sale	H	HW
disposition of revenue	H	HW
Blacksmith - production	H	HY
sale	H	HWY
disposition of revenue	H	HWY
Dyeing - production	hW	WY
sale	hW	hWY
disposition of revenue	hW	HWY
Soap - production	W	WY
sale	W	WY
disposition of revenue	W	hWY
Chicken-Raising - production	HW	HWY
sale	HW	HWY
disposition of revenue	HW	HWY
Kunite butter - production	W	WY
sale	W	WY
disposition of revenue	hW	hWY
Peanut oil - production	W	WY
sale	W	WY
disposition of revenue	W	hWY
Peanut paste - production	W	WY
sale	W	WY
disposition of revenue	W	hWY
Vegetable garden - production	HW	HWY
sale	HW	HWY
disposition of revenue	HW	HWY
Domestic fruits - production	HW	HWY
sale	HW	HWY
disposition of revenue	HW	HWY
Wild fruits/plants - production	HW	hWY
sale	HW	hWY
disposition of revenue	HW	hWY
Dolo-beer - production	W	WY
sale	W	WY
disposition of revenue	W	hWY
Pottery - production	W	WY
sale	W	WY
disposition of revenue	W	hWY

mudcloth or indigo cloth is sold as such in the markets in comparison with strips of woven cloth, usually undyed cotton, sold by the weavers themselves. The only exception observed was in the areas of Sangha where ready-made woven cotton shirts are sold to tourists. Few are dyed and the quality does not compare with clothing worn by the people. However the demand for the shirts has created a thriving cottage industry for the local weavers who have here and there bought sewing machines to keep up with the demand. In sum, weaving supplies a community with its apparel and sacking; it is an income producing activity for several parties ("income" also being exchange): women for cleaning and spinning cotton, weavers for weaving, and women for dyeing.

As an example of an expanded weaving marketing system, Mopti offers an interesting comparison. In Mopti, with its large population, work a large number of weavers organized into cooperative groups with their own religious patron saints and ceremonies, an apprenticeship system, and a guild system to protect standards of quality of work. The weavers use commercially and locally dyed cotton thread with a wide variety of color combinations which represent various social themes. One group of weavers of eight or so men and apprentices work solely on the commissions of a group of women merchants. The women order the cotton (already spun) from outlying villages through traders, buy and supply commercially dyed cotton from the plant in Segou, commission dyeing of indigo cotton locally, and supply the weavers with the cotton thus procured. The dictates of current fashion as well as the over or under supply of commercially dyed cotton colors determine the color variations in the finished products. The latter is sold by the women and their agents in strips or sewn into pagnes in Mopti. Judging by the steady amount of work keeping the weavers busy the arrangement appears to profit everyone involved. Most of the

other weavers in Mopti appear to produce clothe in a similar manner;- commission. One could tentatively hypothesize that the larger the weaving industry in a given locality, the larger the role of the middlemen and middlewomen in the procurement of thread and the sale of the product. The dynamics of this industry has possible implications for the future in terms of income producing activities for men and women and their effect on the manufactured clothe industry. The latter marketing industry (as well as fishnets for the Niger fishing communities) is totally within the control of male merchants in Mopti; there appears to be an uneasy relationship between the latter and the well known woven clothe women merchants who are perceived as encroaching on the established merchants' traditional marketing territory. Similarily, in Ghana women are beginning to enter a once sole male controlled industry - marketplace tailors. The examples above are presented to illustrate the delicate relationship and evolvement of traditional income producing activities into the modern sector.

Dyeing of clothe on the other hand is traditionally a strictly feminine industry both in production and sale, and appears to present less conflicts of interest in the modern sector. The dyeing of clothe, both woven and manufactured has in some areas of the country become a thriving cottage industry with products sold outside the production area. (see Appendix C for an example of a successful cooperative activity organized around dyeing).

Leatherwork is in activity confined mainly to men and boys though women help to process the root dyes used in decorative work. The males keep the revenue. Leatherwork includes cleaning and tanning skins and working

them into various articles from simple water bags and sandels to highly ornate horse saddles and tackle. The supply of leather in the target region is directly dependent upon the supply of livestock slaughtered, as wild animal and serpent skins are scarce. There appears to be little room for expansion of the leatherwork industry unless a commensurate increase in leather is introduced and the markets for the finished products established.

Blacksmithing occupies men and boys mainly, with women contributing their labor peripherally as for example fetching wood for the smithies. According to the survey blacksmithing is one of the few activities in which boys share in the production but not in the remuneration of their labor - perhaps because of apprenticeship regulations.

Operation Cotton, unlike Operation Millet, has successfully integrated the blacksmiths into their zone of activity; the blacksmiths receive training in the maintenance and repair of agricultural machinery (plows, carts, diesel operated cereal mills) and are supplied with an appropriate set of tools. This has resulted in securing the blacksmiths a viable role in the post-subsistence economy and for the Operation, resident repairmen. Operation Millet has not yet tried a similar concerted effort to integrate the Kreqis blacksmiths.

There is some heated disagreement between farmers and Operation extension agents on the utility of the so-called Bourginon plow (of French origin now duplicated by blacksmiths) and the TM plow which is far more expensive than the former.[1] The farmers complain that the TM plow is ill adapted to the soil and favor the "bourguignon" plow for it doesn't plow as deep, can be pulled by one donkey, and is lower priced. (Even the very notion of an animal pulled

plow is radical to the Dogon farmer - who consider it an act of torture to the animal, especially the donkey). Though the cheaper plow breaks down more often and doesn't last as long as the TM model, extension agents say the farmers still favor the former. Blacksmiths can and do repair the "bourguignon" plow. Perhaps the training of blacksmiths to repair both models with appropriate tools could become a function of the Operation.

Dyeing as mentionned above, is a womens' activity both in decision and participation with both husband and wife sharing the income along with the girls (in lesser proportion) who assist in the production. The women involved are usually older and hence freed from child-care responsibilities which grants them more time to devote to this activity. Younger girls assist and learn the techniques which they will in turn exploit in their maturity. Indigo dye from Europe has been in short supply in the area due to high demand in the European and American denim industry; women have reduced production as a result and are forced to process indigo from local sources - a much more time consuming activity. Recommendation: should the commercial supply of indigo increase in the area in the future, attention should be paid to grouping dyeing production for unmarried and younger women around the Community Development project. There is interest in gaining income through this traditional activity, and the caste connotations towards the activity are rapidly breaking down. Since in the project area a woman who has an income producing occupation (both in the traditional and modern sector) retains the occupation and income during her marriage the training of women in such

an activity could be encouraged - complementing as it does the traditional division of sexual labor.

Soap-Making and butter processed both from the Karite tree are confined primarily to the Bankass Circle where the tree grows in large enough numbers to make the industry viable. The labor involved in gathering the wild fruit which ripens almost year round and must be plucked fresh and the processing of the fruit is extremely time consuming. Karite is "stewed" over fires for days at a time, requiring time consuming labor in gathering sufficient wood. The women involved in the processing of the soap and butter are usually older and often group themselves around the activity for mutual aid. Though the activity is highly remumerative, I am told that fewer women are processing karite than "before".* This may be due not so much to the supply of karite but to the time spent in collecting the wood or the increase of womens' labor in other activities. An increase in her labor, for example in the communal field which has been "modernized" by the introduction of modern agricultural techniques can decrease the labor the woman contributes towards her own income-producing activity. The introduction of modern agricultural techniques such as sowing in lines increases the need for weeding which is womens' labor. Increasing acreage under cultivation (either by not letting land lie fallow) or increasing plant density in a traditional sized field increases her labor. Overall increased millet production ipso facto increases womens labor input into agricultural production but does not increase her income revenue in proportion to labor input. Thus we may well be witnessing a negative effect already evaluated in other areas

*P.E. Razzell in Popul. Stud. (London) 28, 5 1974, argues that mortality dropped in 18th & 19th century Europe not because of dietary improvement but increased hygiene, specifically the use of soap. The implication appears to be to augment soap production and its use.

of Africa[2] whereby one sector of the agricultural producers is economically worse off for modern agricultural technology. In The Valley of Ku project in Upper Volta economists found that the introduction of traction team plowing indeed expanded both acreage under production and yields but the women, who had to abandon their small individual plots and karite processing where loudly complaining that they were worse off than ever. The project planners had assumed incorrectly that an increase in the husbands income would automatically increase that of the wives and children. An assumption that they forthwith corrected: introducing labor saving devices for the preparation of food (mills), and transportation facilities (donkeys and carts) for the gathering of karite nuts and wood, among others.

Manufactured soap is expensive at 150MF per bar compared to 50MF for locally produced soap, and beyond the means of most rural farmers.

Chicken-Raising is shared by the husband, wives and children as are the revenues from the sale of poultry. A haphazourd operation at best, with chickens wandering in and out of sleeping huts and scratching for feed around the concessions, chickens are scrawny and poor layers. Members of a family are assigned chicks which they may sell upon maturity and usually do so for emergency cash. Seldom eaten, chicken meat does not constitute a signficant protein supply in the diet. The eggs are not eaten in preferance to increasing numbers of chickens; dietary taboos exist against child-bearing age women eating eggs. Children are said to develop into thieves if fed eggs, but they do eat wild (pintade) eggs during the "soudure" season . The general chicken population

seems to be low in comparison with similar areas in other regions.

Peanut oil and paste along with other similar products are processed and sold by women and girls, the women retaining most of the income but sharing the remainder with the husband and girls, usually daughters, who have helped her. The peanut paste and oil is used in cooking; the paste supplying the staple to the "sauce" eaten with millet porridge - it is probably a significant supply of protein to the diet. Peanuts are raised in both communal and the womens' individual fields - the sale of the products, raw and processed profiting the owner of the field.

Vegetable Gardening is rare on the Seno and does not constitute a significant sebndary economic activity as yet for lack of water. The activity is included in the study to determine attitudes towards gardening as an income producing activity. Families will raise tiny plots of peppers however and a few other condiments for home consumption, i.e. to spice the millet "sauce".

Wild Fruits are gathered by women and children for consumption seasonally and also for processing into saleable commodities, especially drinks at markets. Most of the labor spent in gathering wild fruits, leaves and plants however goes directly into the cooking pot. Sickness in the family will usually send an older man or woman out into the bush to gather medicinal plants.

Domestic Fruits consist mainly of mango trees and here and there small orchards in low lying areas of guava, limes and rarely papayas. The husband controls this activity (the saplings generally imported)

though the wives contribute equally with them to maintaining the orchards, and the children assist. The women and children transport the produce, if for sale (limes, papaya, mango and occasionally also bananas), to the markets where they sell it on behalf of the husband who renumerates them their labor either in kind or a small amount of cash.

Dolo-Beer is an intoxicating millet beer brewed in large clay pots over slow burning wood fires. The entire process takes nearly two days of carefull attendance with girls assisting their mothers - not counting the time spent in fetching wood. Dolo-making and selling is strictly womens' work. Dolo is drunk by males. Not all dolo is sold, as it used at informal ceremonies. Dolo is only made regularly when adequate millet surplus stocks exist warranting the relative luxury of dolo. Women and children sell their dolo at the weekly market carrying it in huge pots on their heads weighing up to 40 pounds. Women retain most of the income from this activity, though sharing some with her husband and the girls who helped process the dolo. The husband may receive payment for the millet the woman used if it came from the communal field (i.e. his), in kind or labor. If the dolo producer used millet from her own field, she will retain the income for herself and her assistants. Being an intoxicant dolo is forbidden to Moslems. The spread of Islamic conversions in the target area (said to be 85% of the total population) may be reducing its consumption and hence source of income revenue to this sector.

Summary

These secondary economic activities are little changed from those practiced down through the generations. Practically all, with the

exception of the salt and dried fish trade, and production of pitch for the Niger and Bani fishermen, are produced and marketed intra-regionally satisfying a demand commensurate with seasonal variations - plenty or want - drought or good rains. Most of the male controlled activities are practiced during the dry season; it is also at this time that males will leave for larger town and cities and sometimes foreign countries to seek work.

Slowly, due to the remoteness and inaccessibility of the Seno area the demand for modern goods has raised the need for cash income. Taxes imposed by the government have to be paid - young males more often quote this responsibility as their reason for outmigration than any other. Taxes are paid, with variation, according to sex: married males for themselves and their sons, married females for themselves and their daughters. A woman with more than four children is except from taxation, as are youths under 14 years of age and persons over sixty. In terms of population expansion and pressure on the land the taxation system may have implications which go beyond the scope of this report but are worthwhile investigating.

Where ten years ago medical personnel despaired of ever the farmers using the then free drugs offered them by the dispensaires, today supplies of bought medicines cannot keep up with demand. I was told that entire stocks of drugs used to be thrown away. Within a decade the value of medicines has affected profound changes. Where the attitude was negative it is now very positive. Where money to buy medicine was perhaps scarce, it is now found. Everywhere one goes, down to the most rural hamlets one

hears incessant pleas for medicines - usually niviquine, a malaria suppressant and the money readied to pay for it.

This last point is most telling and one of the most difficult to validate scientifically. How much disposable income per family unit and per adult member? Spending money exists in sufficient quantity to purchase drugs which are by no means a small purchase for the average household. (The attitude towards drugs, especially niviquine is altogether positive; the understanding of the Plasmodium falciparum cycle and the role of the mosquito is poor however). Persons having money to buy medicines include men and women both of whom are in evidence as customers at the Pharmacies Populaires - state run pharmacies. But trying to discern how much disposable income exists for both drugs and similar large purchases has been beyond this researcher's capabilities. Given the farmer's traditional reluctance to reveal his/her capital assets to a civil servants let alone a foreigner, one can only surmise from observation and conversations that indeed 1) more disposable income exists on the Seno Plain than does on the neighboring plateau per family unit and 2) cash outlays are used for emergency or needed utensils only - as perceived by the buyers not sellers. Thus although farm women have the 50MF to spend on the acquisition of a clinic health card entitling them to consultations for themselves and their children plus gratis meals for infants prepared from local foods, the women do not avail themselves of either the services or the card - much to the frustration of the medical staff. The women one must presume, do not perceive the health services as a priority need. The same women will buy either, individually or in groups, some niviquine during the rainy season - a far more costly

expenditure. Likewise a few clay pots for a newly married daughter, etc.

One can assume tentatively therefore that where the need is perceived as important, the cash to satisfy the need is found, either on hand in savings, or by working in a secondary economic activity.

Secondary Income Producing Activities

1. A good 3 year old bull cost 30-40,000MF
   A donkey 30-40,000MF, and a donkey cart locally made 64,000MF

2. UNDP project near Bobo-Diallasso, Upper Volta. Personal communication, Brenda MacSweeney, Ouagadougou.

Op Cit Appraisal of Rural Women in Tanzania

Op Cit A Seven Country Survey

Op Cit ECA Study

McSweeney, Brenda "Funding Request for Study of the Impact of Intermediate Technology as a Factor in the Integration of Women into the Development Process", 1976.

7. Health and Sanitation

1975 data for the Koro Circle is representative of official medical problems for the area of the Seno:

Treated cases:

malaria - 7,065

parasites and diarrea - 3,357

gonorrheal infections - 1,115

bilharzia - 325

measles - 483

ear infections - 283

The data are more revealing for what is not treated: other venereal infections, dental conditions, guinea worm (endemic), malnutrition especially among children, eye infections. (See Appendix E).

Official figures for comparison of the numbers of women using maternity clinics services for childbirth delivery versus deliveries "in the bush" were not available. Interviews with matrons suggest however that the vast majority of the pregnant female population is not serviced with medical care; they decry the custom of pregnant women working in the fields and at home right up to the start of labor pains. The matrons cite, for deliveries not at the maternity, a high number of post natale difficulties:

- placenta previa
- displacement - uterine
- transveral head presentation
- hemorrages during & after delivery

Women who deliver children at the maternity and who attend the PMI clinics, the matrons say, have far fewer physical problems associated with pregnancy. They blame the difficulties above upon simple overwork.

However pregnant women say they work right into labor to take

minds off the forthcoming pain.

Maternal care in the form of clinics, maternities and trained staff cannot begin to cope with demand. Women invariably told me their health priority was a maternity clinic close by, i.e. not more than a short market's distance walk of seven or so kilometers. The current staffing of PMIs (clinics for child care) and maternities is:

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Koro - matron, PMI
Diankabou - PMI, matron
Madougou - PMI, matron
Toroli - no matron
Dinangourou, - rural matron, PMI
Koporo - matron
Djoungani - no matron, PMI

Bankass - PMI, no matron
Diallassagou - PMI, matron
Mani-Bonzon - no matron
Ouenkoro - no matron, PMI
Segue - N.A.
Sokoura - rural matron, PMI

Maternity

Fertility* is valued for both the labor of the children and the security they will offer to the family in matrilineal parents' old age. A woman not pregnant a year after her marriage is subject to an official meeting of the family and elders, wherein the couple concerned are urged by advice and local remedies to produce a child as soon as possible. Polygamous marriages are a guarantee of children to a man whose first wife may be infertile. The concept of the male role in infertility is

* A growing body of evidence, as well as common sense, indicates that fertility levels fall most rapidly in societies in which basic social needs are satisfied. Adequate nutrition, health services (particularly those that lower infant mortality), and education all influenc ferility levels. But the social indicator that most closely correlates with fertility decline appears to be education for women, particularly the lower school levels. (Population Council Report, August 1974).

not understood; neither the effect of venerreal disease upon fertility.

The average woman has 9 pregnancies with a lesser number of live births and she can expect only half her newborn infants to survive to five years of age. The complications of sunna circumcision* of all females, performed urder highly septic conditions by female traditional healers and matrons may account (in one interview case in which the State Nurse was not embarrassed to talk about female circumcision, he stated circumcision did almost wholly account) - for multiple complications in fertility, and pre- and post-natal difficulties. The severity of the operation seems to depend on local custom and on the particular operator's skill. Neither the operator nor the operation is ever blamed in case of fatalities. Immediate results are hemorrhage and infections, severe shock and fatalitites due to loss of blodd, damage to adjacent structures, the rectum, bladder etc; gangrene, tetanus, a variety of infections due to septic conditions and dirty tools.[1] Long range results, besides difficulties in passing urine and menstrual blood are genital infections, infertility at times, severe problems at childbirth. With Sunna circumcision and excision the scars and hardening of the damaged tissues often prevent dilation especially with the first child requiring incisions. The results of genital mutilation make childbirth a great hazard for both mother and

* Sunna circumcision is the removal of the prepuce and tip of the female clitoris. The operation is performed at 6-8 years of age. Sunna circumcision is the mildest form of circumcision, other forms are also practiced.

child adding to other difficulties that are often encountered especially with first births, and thus increasingly greatly pain and the mortality for both baby and mother.[1]

Diet

Though better qualitatively than the coastal regions foods (manioc and tubers) malnutrition rather than under nutrition is widespread taking a heavy toll among the youngest segment of the population. The general weakness and parasitic condition of the people leaves them prey to periodic epidemics, such as the recent measles epidemic this Spring (an annual affair but far more severe than normal this year) in which children are dying in high numbers; their already weakened general physical condition exacerbated to mortality by measles. Villagers are fully aware of the contagious nature of measles and some of them have isolated themselves from visitors (and tragically, persons bringing treatment) in order to avoid contamination. The isolation is ineffective of course, due to the active marketing of goods and foods and interaction of people with goods and animals.

Malnutrition symptoms for kwashikor and marasmus are easily confused by the layperson, myself included; however little attention appears to be paid to nutrition education programs despite their apparent prevalence in the area especially among children of very young age, and this observation supported by the personnel working at PMIs and maternities. A sad experience for staff working with malnutritive children and their mothers has been the patient teaching

of cuisine with local ingredients to enrich sauces and make weaning foods only to witness the enriched foods being fed to adult males.

Consumption of meat and enriched sauces is usually by males. Meat is rarely eaten by women and children though a woman who has just given childbirth may be fed meat. Meat is primarily eaten by males at the weekly markets where sheep and goats are slaughtered.

The staple food is millet porridge - ground millet meal stewed with water. An accompanying sauce is served, usually based on a mixture of baobab leaves with local spices. It may be enriched with finelypounded small pieces of dried fish. Peanut paste also enriches the sauce.

Wild and cultivated plants are dried to preserve them. An incomplete list of foods used in the diet includes:

fruits - wild and cultivated, including mango, some citrus, banana, wild grapes, various types of wild persimmons. A grapelike fruit is made into a sort of lemonade (lannea acida), tamarind, African locust bean (parkia biglobosa), shea tree fruit (Butyrospermum parkii), blackplum, fruit and sprouts of the African fan palm, desert dates, yellow mombin (spondias mombin, and fruit of the Pandolphia florida, nere. The most important condiment is the leaves of the baobab tree.

vegetables - tomatoes, nightshade, hot pepper, sweet potatoes, okra and squash.

fish - imported dried from fishing regions, sold seasonally at markets, used in sauces.

weaning/teething foods - unknown. Infnats are weaned from the breast to solids, often spiced; leading to a high number of diarrheatic complaints, loss of fluid retention and weakening of the child's resistance to disease.

Mortality** and Birth Rates

Mali shares with ten countries, the highest index in the world for birth rates at 50/per 1000 - the death rate is 24/1000.* Population data collection however has been difficult as there has been little standardized record keeping especially in rural areas where migration on a temporary or permanent basis can cause much confusion. There appears no reason to believe that these national birth and date rates do not apply to the target areas. At the present rate of expansion then the area population can be expected to double in 28 years.

"Although death rates measure theprincipal demographic effect of prolonged hunger, they do not measure the social impact. For every person who dies, scores or even hundreds more may suffer and lie close to death."* The prolonged drought brought the effects of population pressure on the fragile ecosystem painfully into sharp focus. Though the situation is much improved in terms of food quantity, food quality is poor and must take into account infant children who survive prolonged periods of malnutrition only to suffer irreparable physical and mental damage in the process. The annual "soudure" season from the planting of seeds to their actual harvest is particularly hard on families whose grain stocks have run low but is doubly difficult when drought hits the area prolonging the "hungry" season.

An intriguing study by a Johns Hopkins University medical team in Companiganj, Bangladesh in 1975 found a direct correlation

*Population Report, August 1974, Series J, number 2.

** Lome Report op cit: Ivory Coast statistics on infnat & child mortality found that 90% of the deaths could have been prevented by clean water management, sanitation and nutritional education of mothers. 1 - 11 months 8.3% inevitable causes of death
1 yr- 4 yrs 6.5% " " " "

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between size of landholdings per family and death rates: the less land a family had, the less likely were all of its members to survive a food crisis.[2] (Details in Appendix A).

A study conducted in Bamako comparing growth rates between Bamako infants and European infants[3] found evidence of seasonal mortality during the "soudure". Food taboos and ignorance of nutritional needs* play an important part in the malnutrition of the pregnant woman and that of the child because they often concern animal protein (eggs, meat). Women in Niger were most likely to suffer debilitating effects during the annual Ramadan fasting season - about forty days.[4]

Death rates of children attributed to malnutrition in an Ivory Coast study[5] may approximate rates in the target area and are offered in their absence:

12.2%	from 1 to 2 years
18.3%	" 2 to 3 "
10.1	" 3 to 4 "
9.4%	" 4 to 5 "

Niger data on weight gain in infants demonstrate three distinct stages culminating in malnutrition:[6]

— up to 6 months, infant is healthy and gains weight steadily

— from 6 to 10 months weight gain slows down

— from 10 months, the majority of infants are in a malnutritive state.

The high mortality rate then affects children more than any other group and can be attributed to weak physical resistence to disease due to chronic malnourishment.

*A nursing infant who does not cry is not considered hungry. Infants too week to cry for the breast are considered satisfied; though they quickly die the blame is laid upon fatalism, religious will, etc.

Where malnutrition affects a large number of young children, it also affects pregnant women and mothers. Deficiencies in their diet are caused by the uncertain food supply particularly at the end of the dry season, lack of money to buy supplemental food (e.g. dried fish - protein), and customary dietary habits. These conditions more likely lead to undernourishment than true malnutrition. But the undernourishment of the pregnant woman and mother is aggravated by the lack of health services. The notion of rest is weak, and women continue to expend great physical effots and walk long distances per their domestic and agricultural responsibilities up to the day of delivery. Nearly all of the women in the area, except those near maternities, deliver alone, outside of all sanitary training, with the help of a traditional matron or woman of the family. The effects of these traditional methods are, among others, umbilical tetanus, puerpile infection and delivery complications. Resistence to infection is weak.

Wounds

Agricultural workers suffer from wounds inflicted by dabas and utensils used in clearing and working the land. The wounds are treated usually with traditional poultices and remedies applied by traditional healers or knowledgeable members of the family. Antiseptic treatment is unknown and wounds can fester for prolonged periods leading to serious infection. Snake bites, onthe other hand, appear to respond well to traditional treatment.

Water borne diseases

Ignorance of sanitary water management results in a chronic physically weakened population suffering from parasitic conditions,* the dysentaries, diarrhea, malaria and guinea worm among others. Everywhere the problem of water is critical: there is either too much or too little, both conditions creating health risks. During the rainy season women collect drinking water from puddles near human settlements, where human and animal excrement, garbage and refuse provide a breeding ground for many diseases. During the dry season water collected at wells is infested likewise with fecal material from nearby concessions.

Villages have no system to dispose sanitarily of excrement and garbage: refuse attracts rats, lice, and flies. Intestinal parasites are transmitted through direct contact with the soil of bare feet and hands. The menace of cholera is constant.

Traditionally dug wells predominate over cement lined wells. The supply of water often runs dry towards the end of the dry season. At the best of times it is not unusual for women to walk 10 kilometers to fetch water. It is understandable under these circumstances that cleanliness of household utensils and human bodies goes wanting.

*The introduction of improved foods into the diet of a person suffering from parasites is negative.

Summary

1. Human settlements favor the transmission of infectious diseases and parasites.
2. The pregnant woman, the mother and child suffer from malnutrition and under-nutrition.
3. Potable water sources are rare, sanitary water management methods unknown. Water-borne diseases are endemic to the population.
4. The generally physically weak condition of the population leaves it prey to high mortality and prolonged periodic epidemics.

Conclusion

The poor health conditions of the target populations, apart from the social effects, affects their overall productivity.*

The blame for the very low productivity of millet in Dioungani is attributed entirely to the high prevalence of guinea worm in the area by Operation Millet extension agents.

TABLE 8

Decision-Making and Participation in Family Care

	Decision of Activity	Participation in Activity
Health	HW	HW
Payment for medicine/s	HW	HW
Nutrition	HW	HW
Number of children	HW	HW
Rearing of children	HW	HW
Schooling for children	HW	HW
Costs of schooling	HW	HW
Economizing - savings	HW	HW

Key:

H = Husband decides or participates in activity
W = Wife/wives " " " " "
Y = Youth " " " " "

h = Husband contributes to decision or partitiopation in activity
w = Wife/wives " " " " " " "
y = Youth " " " " " " "

e.g. HWY = husband, wif/ves & youth contribute equally to D or P
hW = woman decides or participates in activity with contribution from husband

Family Care

The above table delineates responsibilities for family care activities. Family care is defined as maintaining the good health of family members and curing ailments, caring for infants - lactation, weaning and growth into childhood, preparing food, spacing of births, and the rearing and formal education of children.

Regarding health the husband has major decision making powers in the family unit, but both husband and wives contribute to family health responsibilities in actuality. If a cash outlay is involved in health care both husband and wives pay for drugs.

Food preparation* for family consumption is primarily the woman's responsibility, with the husband playing an active part in the distribution of grain stocks for preparing millet meal. Both husband and wife are responsible for nutrition.

Both husband and wives are responsible for educating their children and appear to have equal decision-making powers in this area. Where expenses occur, for example with school fees and notebooks for youngsters both parents contribute.

As a hedge against high infant mortality (one out of every two infants born alive will not live to become five years of age) and security in old age, women are socialized to have large families. No family planning information and education is available to the rural women or men so it can be assumed that family size will remain fairly consistent into the foreseable future. Spacing of children is "natural" - that is nursing of infants for two years or more. Lactation suppresses

*In addition to household responsibilities of 20-30 hours a week, women have a heavy social responsibility as theyare expected to maintain fairly elaborate reciprocal exchanges of gifts, visits with neighbors and relatives. Caring for the elderly is her responsibility as is donating gifts and her labor in food preparation for family celebrations and important events.

fertility. Clearly the question of who decides on the number of children isonly applicable when there is a difference of opinion between male and female spouses. The parent who prevails in decision-making, in this case the husband, in regard to family size should then become the target of family planning education. The data presented here on attitudes towards family size may help population researchers but is primarily included here for comparison with other decision-making points.

Since responsibility for health decisions rests mainly with the husband of the family unit and the actual health conditions of its members is shared by both husband and wives it is most important that sanitation and health programs not be aimed only at the female members of the community targeted. We can avoid the mistake of assuming that health responsibilities are those of the women only and projects such as latrines construction and maintenance, malaria suppresant projects, clean water management etc. be designed to include the participation of husbands and wives both. Likewise a small,but perhaps signficant in terms of future growth, contribution of youth to health measures requiring a disposable income was recorded in the survey. Presumably this is working youth in the modern sector whose economic contribution to the health sector will grow along with the expansion of the cash economy. This group should also be targeted for health and family care projects.

Health and Sanitation

1. Verzin, J.A. MD "Sequelae of Female Circumcision" Tropical Doctor 1975

Abu-El-Futuh Shandall, A. "Circumcision and Infibulation of Feamles: A General Consideration of the Problem and a Clinical Study of the Complications in Sudanese Women" Sudan Medical Journal Vol. 5, No. 4, 1967.

2. McCord, C. "What's the use of a Demonstration Project?" Paper presented at the annual meeting of the American Public Health Association, October 1976.

3. source Enfance, Jeunesse et Plans de Developpement, Projet de Synthèse des Etudes Nationales, Lome Conference May 1972, UNICEF, Central and West Africa Bureau.

4. ibid. op. cit.

5. ibid. " "

6. ibid. " "

8. Community Development Definition and Implementation

The term "Community Development" was precisely defined and accepted as standard by international organizations following a series of conferences held by the United Nations on:

1952 Regional social research and community development - European problems

1959 Community Development and Social Activities in Urban Regions

1961 Training for Community Development

1963 Organization of Resources for Community Development

1968 Community Development in Developing Nations

Definition adopted by the UN and its agencies:

> Community Development is the sum total of procedures by which a population unites its efforts with those of the public weal towards the improvement of the economic, social and cultural conditions of a group, which orients the population towards the greater national life of the country and permits it to contribute without reservation to the progress of the country.

The newly independent nations of the last two decades, including Mali overwhelmingly opted to adopt this definition in response to what they considered the absence or inadequacy of inherited colonial social welfare policies and programs. The Process was defined as requiring two conditions:

1. The inhabitants of a community actively participate in communal efforts towards improving their standards of living and that these efforts be as much as possible on their own initiative;

2. that technical services be provided to help their initiative be realized - in the form of staff assistance and financial aid.

The basic principles for community development as defined by the UN actually cover 142 points, the most importants being:

1. the communities do have the capacity to solve their own problems
2. the entire population wants to and can change. Cognizant that the desire for change is often not realized for social/cultural reasons.

3. the community participate in the realization, modification and control of the major changes taking place within their community. That is, the population be given the opportunity to organize itself to realize communal objectives
4. within the community, the population modifies and develops its attitudes and capabilities in concert with the goals it has defined and towards which they are working
5. an integrated approach to problem solving is more efficient than a fragmentary one
6. groups are capable of directing themselves if the members of the group have confidence in both the group/s and the benefit to the entire community
7. satisfaction and self-confidence resultant from even the most modest efforts can contribute to the resolution of more difficult problems in a continuing process of confidence building
8. individuals respond equally well to appeals to their altruism as egoism. These motivations can be used for the better good of the entire population of a community.

A Plan of Action for community development is defined by the program. Community Development being a method of working with the populations, its plan of action depends upon the communities concerned, training and the experience of the personnel.

Structure - a certain number of democratic structures are indispensable to communication: animation groups, animation committees, activity committees etc.

Persons concerned are at all levels of the social structure, from top to bottom, within and without the economy, as well as those who are rarely targeted as needing community assistance.

The General Orientation of community development programs include:

Capital investment

The construction and maintenance of social service centers, maternities, clinics, dispensaries, schools, housing, kindergardens, day care centers.

Economic programs

Employment, rational use of national resources, modern agricultural techniques, industrial development, elimination of those traditions constituting an impediment to social and economic development

Social Programs

Juvenile delingquency, disintegration of the family, health, malnutrition, poor housing conditions, the inclusion of the handicapped in national production.

Education Programs

Preschool education, education of married women, youth. Functional literacy. Application of the community development method itself constitutes an education through meetings for execution and evaluation of programs and research of solutions to solve collective problems.

Five-Phase Schema of Community Development

1. Exploratory Phase - CD agent becomes informed about general situation of a community.

2. Organization Phase - creation of an organization or use of one which already exists.

3. Discussion Phase - inventory of local resources in view of priority problems. Decision-making and planning of local project with national or regional coordination.

4. Action Phase - human investment, collection of monies or in-kind contributions, contacts with administration, distribution and execution of responsibilities.

5. Evaluation Phase - local organization responsible for the execution of the program evaluates the results with interested specialists.

Application of the Community Development Model in Mali

In September 1965 a conference held by Public Health and Social Affairs undertook to reorient contemporary social services towards the Community Development model delineated above. A new section for Community Development was created under the direction of Social Affairs, Ministry of Health (10 Year Plan, Development of Health Services, Bamako 1966, page 74). In April 1967 the recommendations of the conference were applied towards a project to develop Community Development Centers and a National Social Action Committee. In 1968 this latter committee was renamed the Secretariat for Social Affairs and was given the responsibility of coordinating and implementing the new policy.

The Secretariat's priority mission was to develop a formula for a new social policy, based on the real needs of the nation: the characteristics of the country, the essentially agricultural occupation of its people, vast distances, the necessity of involving the masses in their own development. In sum, a policy changed from the predominantly medical-social orientation of social services inherited from the French to one that would orient a national movement for community action.

The Secretariat's Report, "Redressement Economique et Financier" (Economic and Financial Strategy) provided the basic guidelines for what became (two) model Community Development Centers one urban and one rural, and later in 1973 the Community Development program under Operation Riz in Segou. As the basic policy of the government, the report and the results of the projects are worthy of study in some detail.

Major Problems perceived, to the promotion of the rural population to which Community Development could offer solutions both short and long term, were as follows:

Health

Despite the existence of a rural health services system, one out of two children died in the rural areasbefore five years of age. Constituting apart from the humaine tragedy, a tremendous loss to the country of productive manpower.

This situation was blamed on the lack of adequate hygiene and nutritional deficiencies (qualitative rather than quantitative), and difficult living and working conditions. Endemic illness weakens a large section of the national population rendering it highly susceptible to periodic epidemics taking a high human toll. The most prevalent diseases being: malaria, internal parasites, onchocercosis, tubercolosis, leprosy, tripanosomiasis. Young children died as much from umbilical tetanus infections as from ignorance of elementary hygiene.

Though remedies to the diseases were often simple, vast distances separating the dispensaries from the ill in rural areas, rendering treatment tardy if at all.

Education

Though primary school enrollment had doubled since Independence, rural schools were often poorly attended. The reasons were twofold: the parents did not accept the importance of education on one hand and on the other school attendance imposed hardships on the children. Children had to walk six to twenty kilometers twice a day to and from school; no provision was made for school lunches. Young people were leaving their villages after only a few months in school for the towns, where they became a delinquent problem to local authorities. Illiteracy was almost universal in the rural adult sector.

Agriculture

Outmoded agricultural methods propagated but a subsistence production. At the same time the peasant population's reluctance to accept new agricultural techniques, coupled with the lack of water (wells and irrigation), poor transportation facilities and lack of access to credit retarded their development.

Personnel

Insuffiency quantity of personnel in the different rural services to motivate the rural populations.

(The Secretariat recommended greater emphasis on village activities groups, and the training of volunteer village agents.)

Strategy

The strategy to attack these problems was [illegible] one of integration. One problem could not be resolved without the other. Hence a policy was developed addressed to the entire community and its communal interests - a radical departure from the classical social assistance approach.

Techniques of Implementation.

- study the specific and general needs of a community
- assist the population in recognizing its needs
- animate the population to satisfy these needs through their own voluntary efforts, in donated labor, or monetary or in-kind contributions
- help the populations acknowledge "natural leaders" and other dynamic villagers within the community
- organize training for these "leaders" as volunteer agents; the aim being that all communal activities be promulgated within and by the community members.

Community Improvements

Priority needs for improvements were in:

- agricultural production and marketing
- utilization of revenue/income
- nutrition
- provision of potable water and sanitation
- communication facilities inter-village-town
- working conditions
- assistance to the aged, infirm and young
- recreational and education facilities for the youth

Pilot Centers

Two pilot centers were chosen to experiment with the community development method: one rural at Sanankoroba thirty kilometers from Bamako and one urban in the Hamdallaye quartier of the capitol. Oxfam and UN financial assistence was requested and granted, though Oxfam supported only the rural pilot center. Work got under way at Sanankoroba in mid 1969.

Program Evolution - Rural Pilot Center

An Action Committee was organized composed of the heads of the local services (director of the primary school, director of the medical post, the director of the agricultural extension program, the veterinary agent), the chief of the village, women delegates from the village, members of youth groups, and the personnel of the already existant Social Affairs Center. The ActionCommittee was presided over by the Chief of the Arrondissement of Sanankoroba. The Action Committee's support of community defined programs was considered essential to their implementation. The Social Affairs personnel initially acted as the conduit between the Action Committee and the villagers and vice versa. Progressively sensitizing both groups (villagers and civil servants) they pressed for, and succeeded in having village delegates on the Action Committee. This seemingly facile procedure is in fact very complex and represents an education process of its own. It involves a drastic re-orientation of perceptions called "sensibilization des populations" by community development agents or "sensitizing the people" and involves a two-fold function:

1. democratizing communication between the local authorities and the rural population;*
2. confidence building within the rural population towards self-realization of their problems.

The process involves at a minimum three coordinated steps:

1. orientating local services personnel to be more responsive to village needs and aspirations. I.e. orientating the accountability system downwards to the rural populations served rather than exclusively

*Given the top-down local government decision-making system this sensibilization requires civil servants to perceive illiterate villagers as their equals - and discuss and resolve problems in a democratic manner. Not an easy task for either party where the cultural gap separating the educated civil servant from the uneducated peasant favors the decision-making powers of the former.

upwards towards superiors.

2. Orientating the highest local authority usually the Chief of the Arrondissement to enlisting the voluntary cooperation of the local services. Though his authority in his jurisdiction has to be obeyed by law, it is better utilized by persuading the persons involved by appeals to their altruism and professionalism than coercion. The support of a dynamic and progressive Chief of an Arrondissement is critical to the success of the Action Committee which he chairs.

3. Orientating villagers, usually timid in front of civil servants to more confident of themselves, employing all means possible [illegible] towards narrowing cultural and language barriers. Example: civil servants normally conduct meetings with each other in French. When a non-French speaking villager attends an Action Committee meeting his/her presence is only token unless honest efforts are made (1. above) by all attendant to conduct business in the local language.

With the Action Committee's the following activities were implemented over the next two years:

- exploratory tours of the villages of the arrondissement by Social Affairs and appropriate local personnel to talk with villagers, detect problems, discuss local resources and establish a draft program for the arrondissement.

- selection and training of animatrices (new) and retraining of old ones at the Social Affairs Center - now called the Community Development Center. Animatrices are non-salaried volunteers.

- 200 animatrices working in the arrondissement villages: niviquinization, basic health care for children, assistance in childbirth deliveries and nutrition demonstrations.

- regular supervisory tours by the medical post director and matron Community Center personnel/to evaluate results of the volunteer animatrices' work and rectify errors.

- nutrition consultations - pre and post natal in collaboration with the PMI.

- opening of a 12 bed maternity at Sanankoroba - external assistance of GOM and Oxfam.

- library opened for school and pre-school children. External assistance from Ministry of Education and charitable organizations.
- Weekly films (1969-70) followed by on demand requests on health and sanitation by Ministryof Health.

Results and Analysis

The results obtained from the urban and rural model were considered rewarding enough to project the community development method into all of the Social Affairs Centers in Mali. This objective in fact has not been attained, though Social Affairs personnel are better trained.

What distinguished the Community Development method from other animation programs in Mali was the importance given to the organization and participation of the "collectivite" - communal groupings. This participation as we have seen is generally obtained by social and communal education, the influence of qualified rural agents, the inputs of local charitable organizations, and the support of local authorities.

Recognition of need alone does not suffice to change the need. In the rural pilot center once the needs were understood, it was necessary to conceive and plan a program cognizant of all the local resources (administrative, human, social services, agricultural etc.) that could be tapped. To place the burden of organizing these resources on the shoulders of a few permanently staffed positions in order to reach 14,000 people was obviously beyond the capability of the Social Affairs' delivery system. In the Pilot Center model, exceptionally well motivated and experienced personnel did in fact succeed in implementing the program - aided by a Chief of the Arrondissement whose support was strong - either because he was aware of the program's successful reflection upon himself or because he realized the national importance of the model effort.

The weakest link is that between Social Affairs personnel and local technical and administrative services. The Secretariat, realizing this, recommended that community development be recognized in national planning activities. It requested more collaboration with and between other technical and administrative

services engaged in development, particularly the ministries of Production (formerly Agriculture), Education and Health, and especially Santé Rurale - Rural Health. Unfortunately the collaboration requested at planning levels was not forthcoming due perhaps to the excessive zeal with which the ministries and their divisions guard their given constituencies, compounded by the low priority granted health programs in general in Mali.

Social Affairs Centers in the rural areas continue to suffer from chronic personnel turnover, resulting from the high number of female staff married to (or engaged) to spouses working or transferred to other areas of the country. The women under threat of divorce or estrangement request transfer. Banklass Circle itself, for example, has had a Social Affairs Center devoid of activity and staff for over a year. Rural Health assigned three matrons to the maternity division in the same town since 1973, all three of whom remained only a few months each, apparently, according to local sources, because of marital obligations. Happily exceptions exist; in Koro the matron of the 12bed maternity is married to a Customs official whose transfers, up till now at least, have preceeded but complemented hers.

Despite the Secretariat's recommendation to the contrary, the orientation of the[58] Social Affairs Centers in Mali remain along classical single service lines, though their directors receive better training. Social Assistants who head most of the rural Centers (the Directors being assigned by age priority and experience to urban Centers) are women with very rudimentary education, little motivation, and with the exception of urban Centers, their reach into the rural areas is very limited. Centers are closed for long periods for lack of personnel at all. Little collaboration exists in the field between the Centers and Rural Health posts for reasons mentionned above.

Other projects recommended but not realized were Centers for the Blind and Day Care Centers - 5 to be built per year in the regional capitols and one per year outside the regional capitols.

However the picture is not all that grim. Mali is lucky to have at its disposal a cadre of older women experienced in social work who started their training in the mid-1950s under French financed and directed social programs. These women who learned animation "by the ropes" and later received re-training under the guidance of various organizations (UNDP, Catholic Missions, CESAO, etc.) are now in key positions to influencing community development methods, either by teaching or directing programs.

The German Freidrich Engels Foundation is financing a Community Development Center school which will graduate its first twenty fourth-year students in 1977. The curricula and work-study program exemplifies the community methodology. Mali will have progressively more and better trained community development specialists both men and women with which to work.

Community Development and Operation Riz Segou

The recommendation of the Secretariat for Social Affairs in 1972 was to create five Community Development Centers under Operation Riz to replace the former Social Affairs Centers. This recommendation found strong support in the Ministry of Agriculture (now Production) which had recently sent representatives to a 1972 Lome Conference on "The Grand Operations and Women, Children and Youth[1]". This Conference criticized the dearth of involvement of the Large Operations in Francophone Africa with delivery of social services to the peasants they were at the same time exhorting to increase productivity; it vividly outlined with well documented material the poor health and economic conditions of the peasant farmers, and finally recommended that the Operations integrate a social services delivery system within the structure of the agricultural delivery system. The Malian Ministry of Agriculture therefore decided to implement the Lomé recommendations through Operation Rice in the Segou zone. At the same time AID, which finances Operation Rice, insisted that the Community Development Sector be integrated within the budget of Operation Rice apparently because they doubted the availability of financial support from Social Affairs. However AID did not offer

to finance the entire Sector until its value could be proved and as a result UNICEF offered to support the program materiel for 3 years. Today, though administratively and technically under the jurisdiction of Operation Rice, the Community Development Program still suffers financing headaches mainly in the area of start-up onetime funds for small groups projects. In 1973 then the Community Development project got under way with only peripheral contribution from the Social Affairs Secretariat.

The Ministry of Production generally views the Operation Rice Community Development program as a model for inclusion within the other Operations of the country (Peanuts, Cotton, Millet, Livestock, etc.) . In choosing Operation Rice over the other Operations, the Ministry appeared to favor the former for its positive attitude towards the recommendations of the Lomé Conference. But no less attention was paid to the fact that one of the primary lobbyists for a Community Development sector in Operation Rice was a community development specialist who had worked in Social Affairs Centers for a number of years and had received advanced training in community development methodology in Holland at the bequest of the UNDP. This specialist was also married to the Director of Operation Rice whose full support of the program the Ministry felt, they and the community development staff could count on. This supposition, as it turned out, was quite true. The program yearly receives wider national and international attention as a model of integrated development for rural farmers.

Methodology

The methodology of the rural Pilot Center model described above was adopted with refinements necessitated for staffing and sites.

Chronology of Implementation 1973 -76

- Office of Community Development established in Operation Rice complex at Segou with Director, assistant and secretary.
- Five sites chosen based on criteria of:
  1. predominant rice cultivating agricultural activity
  2. access - roads and communications
  3. open attitude of population
- in consultation with Op Rice field personnel, medical personnel

local authorities, and other technical persons working in the areas.

- recruitment of personnel for Five Centers. Director persuaded three of her former colleagues to transfer into the program as Directors of the Centers (sites).
- Start-up of program. Two years. Meetings, demonstrations, contacts; initiative encouraged, consciousness of self-help raised.
- Study of target groups and identification of priority needs; water management and health conditions.
- Action Committee created composed of local administrators of technical services and Chiefs of Arrondissements. Goal: to organize rural population into organizing themselves. Representative from Animation Group appointed to Action Committee.
- Animation Groups formed composed by general assembly of villagers. Function: inform Community Development personnel of village problems and feedback community development system to villages.
- All five Centers fully staffed and operational with:

  1 Assistante Social as Center Director
  1 Aide Social
  2-3 Community Development agents locally recruited, trained, and paid by Operation Rice on 2 year contracts.

Centers are cement three winged buildings including meeting room, day care partition, and 4 multi-purpose rooms. Staff lodgings are in towns' local facilities.

Each staffperson is assigned one mobylette. Each Center assigned a 3 chevaux vehicle maintained and serviced by Operation Rice garage on site.

Present Status of Project

5 Community Development Centers of which 4 are fully operational; one Center being based just across the Region's frontier with the Sikasso Region has encountered numerous jurisdictional problems retarding its operation.

48 villages are involved in diversified activities - medico-social, economic, and social.

691 village volunteers have been trained and work in village projects.

2 nursuries are operating at 2 Centers.

2 model hen houses projects are operable, improving local poultry strains with interbreeding with imported poultry - Bamako and Segou.

Supplemental Activities include: market gardening
breakfast programs for school and pre-school children

Financing & Recruitment of Personnel

The FED through Operation Rice pays the salaries of the Community Development agents based on standard national salary scales (Fonction Publique). At the start-up of the program agents were recruited locally by word of mouth, selected, trained and assigned working sites. Agents were contracted for a two year period. Their education level was 9th year, and all agents were female.

Evaluation of this system pointed to weaknesses in the personnel system:

A. the agents perceived their training and work as a means towards upward mobility, mainly qualification for employment in Mali's cities. Of the 9 agents initially selected and trained only 2 remained on site att the end of their contracts and none re-opted. Many also married and moved away.

B. It was assumed that since the agents came from the milieu they were fully informed of local cultural traditions. In fact their relatively high level of education had cut them off at an early age from the realities of peasant life, to which they could not readapt comfortably.

C. Candidates for agents were not competitively selected limiting the field of choice talent.

Contemporaneous with the staff evaluation was the realization that volunteer staff had in some cases produced exceptionally capable animateurs who could function as well or better than the Community Development agents but who were illiterate or had minimal education.

The Community Development office therefore recommended and implemented new personnel policy guidelines:

1. Open CD agents positions to competitive recruitment.
2. Recruit both males and females[a], bachelors.
3. Test candidates for knowledge of local milieu.
4. Increase contractual period from 2 to 5 years.

[a] On the premise that males would more likely marry and stay in the area continuing to work as CD agents and with the added bonus expectant of the CD office that the young male agents would marry young females who would be trained and both would continue to work in teams.

Initial evaluation of the new personnel system admits to great improvements, though as of yet multiple wedding invitations have not been announced! One Center has an illiterate CD agent who by all accounts is performing excellently. The agents appear to other staff to be committed professionally and personally to their work.

The personnel assigned at the beginning of the program, by Social Affairs to the Centers were, as mentionned above, Social Affairs staff who were transferred to the Centers. Their salaries are paid by the Affaires Sociales though they are supervised by the overall Director of the Community Development Program. Most of these highly qualified women who directed the Centers have now left for other positions. In one case, the Dioro Center the Director stayed on three years while her husband and family moved to Bamako; her decision to stay was instrumental in making the Dioro Center one of the two most active Centers in the Region, at a time when her departure would have left a large vacuum in leadership and direction. Family pressure finally forced her to request transfer to the capitol where she now works as the director of the Community Development Division of Social Affairs. It is the hope of Operation Rice that the positions of Directors of the Centers and Assistant Directors can be filled by progressively more experienced Community Development agents and graduates of the Community Development School in Bamako. In either case Operation Rice will have to assume the salaries in its budget for an indeterminate period. The Centers could become almost self-supporting once a cadre of well organized volunteers are trained to take over programs supervision from salaried staff.

On the other hand, the cadre of experienced Operation community development agents may be asked to help start-up similar programs under other Operations in Mali or in other areas of the Operation Rice's zones of activity (Mopti, Djenne etc.)

The Village Volunteer

The most vital segment of the Community Development project under Operation Rice is the village volunteer - called animateur or anim trice. Because this segment is well worth duplicating elsewhere we shall take a closer look at the methods of recruitment, training, deployment, and evaluation of these almost 700 peasant farmers.

Recruitment of a Volunteer

The aimed objective is the establishment of a self-help mentality within a village already selected asa target for community development action. The Action Committee appoints a Recruiting Committee composed of the he ds of services dealing with the target problem, e.g. health. The Recruiting Committee chaired by the Chief of the Arrondissement, along with the Community Devebpment Center Director summons a village into general assembly to choose, for example a village matron. Generally the traditional midwife who is already working in the village will be chosen. She is illiterate. She is informed by the Recruiting Committee from the very start that she will not be paid by the government. The village, again in assembly, however agrees to compensate her for her services and efforts, usually 100mf (about 25 cents) per delivery and per visit.

The matron is then sent to the Regional Medical center in Segou for an intensive training program under the supervision of the regional medical director or a trained midwife. The logistics are managed by the Community Development staff. At the end of her training, depending upon the vocation from 10 days to 3 weeks, the matron receives a medical kit with surgical instruments to cut the umbilical cord and bandaging materials. She then returns to her village to become the midwife on the spot, remaining in periodic contact with the Community Development Center at the Arrondissement.

Other persons are similarily recruited and trained in: niviquinization, first aid - particularly first aid for hoe wounds, nutritional education, sewing, dyeing, knitting, vegetable gardening, poultry raising, etc. The average volunteer is a female, middle aged.

The women stay and work in their own villages under the general supervision of the CD Centers. Periodically they may be retrained as deemed necessary, depending on the new felt needs of the village: e.g. gardening, in which case agricultural techniques are taught by Operation Rice extension agents.

Evaluation

Despite their totally voluntarily contributed labor, the Volunteers' remuneration comes from their appreciably high status in their village. Not all volunteers need to work allyear round. Those involved in niviquinin tion for example, are most busy during the rainy season. The recruitment and deployment method utilizes the traditional mutual aid nature of the village. Village respect for the animatrices and animateurs is very high; the success of the animatrice's work generally leads to village demands for volunteers in other felt needs.

The training of volunteers hampered by the lack of funds & adequate personnel, tends to be very rudimentary, though every effort is made to be practical as opposed to theoretical.

Responsibilities of Volunteers

Responsibilities are divided up between agricultural and family responsibilities. The polygamous unit is strongly developed in the area - with its subsequent division of food preparation by co-wives on a rotational basis. This system works to the benefit of the contribution of the volunteer woman's labor to community development activities. Thus, the animatrices, like all married women work 2 days for their family and husband out of 4, 6, or even 8 days depending upon the total number of wives (maximum 4) per husband. The remaining days are devoted to cultivating their husband's and their own field crops, and community development activities. A woman with several co-wives has a greater amount of free time to devote to community activities than a family with one wife as the women can divide labor more equitably.

Thus the traditional system is used methodically towards resolving village problems rather than against.

Community Development and parallel agencies

Since the aim of the project is the improvement of the living conditions of the target populations, the activities encompass a wide range of services: livestock, agriculture, health, wells, etc. Initially the local directors of those services viewed the community development with misgivings - especially the malaria and health activities. Complaints were registered with the Ministry of Rural Health by medical personnel that the CD project and in particular its Director were usurping their functions. The Director repeatedly held meetings both in the capitol and at the Circle level to explain to everyone's satisfaction that the project was integrative and cooperative. That is, that the project aimed to help the (health) services deliver their services to the rural population and the Centers themselves represented local resource centers for social and medical services not otherwise available to the average peasant.

It is very important prior to implementing any community program that it be carefully explained to all services, particularily at the Arrondissement level and Circle level and their cooperation harnessed and used. All too often the Regional and National Office of a service do not inform local personnel of their cooperation and commitment. Communication unfortunately tends to go down-up. Much time is lost in local services contacting their regional superiors for permission to cooperate with a new integrated program.

The community development methodology of harnessing group dynamics must be repeatedly reiterated and understood in terms of local and national developmental activities. This involves sensitivity and understanding of the bureaucratic structure and its inevitible rigidities. Local service technicians are at best skeptical of projects that may reflect on the inadequacy of their own training and job performance. The Action Committee structure can do much to allay this distrust and recruit their cooperation.

9. A Theoretical Model - Design

It is no accident that we see in all facets of underdevelopment the "vicious circle" effect. A needis identified, suggesting a remedial input. But further analysis of the need shows that it cannot be met without several other coordinated, mutually reinforcing inputs. Further anaylis may also indicate that the developmental effect cannot be sustained and consolidated without yet another dequence of inputs. Thus if we are talking about improved nutrition-it is not only a problem of food production, itself requiring many inputs and improved facilities (e.g. gardens, seeds, techniques, storage methods, cooking and preparation); it is also one of nutrition education for parents. But what good nutrition inputs and education if gastro-enteritic disorders negate retention of nutritive foods? So tackling these disorders inevitably requires a new water supply for the community, which in turn requires other inputs.

Post World War II developmental programs were designed with a western orientation, without adequate understanding of these vicious circles (read "interdependent variables"). The structures of governments themselves were un-integrated: a separate bureaucracy was created for separate functions, services were and are still basically passive. When dynamic change-oriented demands were injected into these structures, they were exposed as fundamentally antithetical to an integrated development process. We are all familiar with the weakness of top-down developmentalplanning, which reinforces the specialized agencies in their separateness. Coordination is difficult at best. Planning based on consultation with the community (and not justs its fonctionneres) has only very recently gathered support.

Another major weakness in many developmental programs has been the almost total disregard of behavioural factors to the favor of economic studies. Proper regard to behavioural factors at the early proposal stage of community programs may avoid resultant disasters.

A major step forward in planning is the so-called "critical path" method to identify sequences of development steps. i.e. deal with first things first. Thus it is right and meet to deal with

say grain storage losses (when one fifth of the developing world's harvested grains are lost to pests and rot) before applying higher-yield seed varieties to the importunate farmers.

Conditions of breaking the cycle:

1. the people for whom a program is intended be consulted from the outset and involved at every further state
2. problems identified are seen and studied by agencies and specialists collobarating in joint analysis and using the "Critical path" method
3. Consider and phase into the plan, the real demands that the plan makes of ordinary people, in attitude change and learning tasks.

These conditions don't make project planning any easier. On the contrary, they involve much more work at the pre-implementation stage, reveal many more dilemmas, pose more difficult decisions, and ~~the~~ make the total process longer.

Let us take the following subjects:

1. food production and the introduction of small-scale technology into rural life
2. migration and un/employment
3. education and communication
4. health, nutrition and family planning
5. women's, youth formal and informal organizations

The implications and interdependence of these subjects must be kept very clearly in view. Remembering that communities with low income, low or nonexistent capital savings, low credit capacity and high net population growth are kept in an extrememly tight "vicious circle". The "elasticity" of such a community to make extra provisions for any growth oriented change in production patterns by itself is strictly limited at any one time. Second and equally important, the number of new developmental activties in the community that are assisted from the outside (e.g. the govt) but that require economic risk, cash outlay, or initial credit burdens also is severely limited. Thus we can say that the more dilemmas that are perceived at a design stage the healthier the final choice will be. Some of these dilmmas are due to the limited elasticity of a community or initiative, others from intelligent observation. The dangers of focusing on only one aspect of a problem is obvious.

10. Operation Millet and Community Development

The services delivery of the Operation to farmers is overwhelmingly agricultural; either in direct technical advice, credit loans for modern equipment and fertilizer. The system of delivery of services is based on the pilot-farmer model. (Pilot farmers make up only .49% of the cultivators in the Operation Mils zone). Though this report does not address itself directly to the success or failure of the pilot-farmer model, the model does indicate directions the community developmental activities should or should not take.

- One-to-one educational activities with rural populations require a high staffing ratio. Given the limited number of available extension talent and of course the high cost of a high staff-to-farmer ratio this method fiarly well rules itself out.

- An alternative method, the model-family approach also has limited applicability, for it has yet to be proved that working with one family within given community in fact results in a sift-effect learning experience for other families. This method as applied to the Dogon social community with its multiple neighborhoods within neighborhoods organization could in fact excacerbate divisive tendencies.* The Catholic Missions in the target area (and Plateau) have achieved excellent results with small dams construction, wells and gardening programs. Yet their attempts to animate community activities around health and sani-

* The Catholic Missions' rural animation programs on both the Seno Plain and the Plateau use this one-family approach; though they attempt to animate several families within a given village. Despite the Missions' excellent appreciation of cultural mores and a close working relationship with Dogon farmers, they have not been able as yet to get farmers to emulate the model-farmer. A technical input. e.g. a 60,000MF pump financed per model-farmer on credit arouses more envy than emulation. The pump-owning farmer does not share it. The Mission at Bandiagara readily admits to the weakness in lack of follow-up in animation e.g. sanitation training, filtration of water, etc. The Feminine side of the program treats (better off) women only as housewives, not farmers as well.

tation through the one-family approach has as yet to achieve appreciable results. (The Missions in general do not proselytize within the context of their rural animation programs).

- A third alternative is the utilization of the Operation Mils extension agents (at the ZER and Secteurs de Base level) - monitors and/or encadreurs both, as community development agents. Their extension technique however is strictly modeled on the pilot-farmer, and has highly questionable results in emulation. Monitors very rarely use a group technique in educating villagers. They appear to feel their work is done for the day when they have advised the pilot-farmer in a given village on a certain task. This methodology coupled with the selection of pilot farmers who are wealthy individuals in comparison to their neighbors (in Toroli the pilot-farmer is the Chief of the Village-better off farmers have less to lose in agricultural experimentation) does not recommend itself to communal self-improvement. Even with intensive retraining of extension agricultural agents in methodological applications of group dynamics one could not hope for a drastic reorientation of the Operation(s agricultural and social services delivery system, based soundly as it is on the pilot-farmer since 1973. However it is recommended that agricultural extension agents in the targeted zones for Community Development receive training and information on community animation. The agricultural and community agents can and should work closely together, utilizing each others' specialized knowledge towards realization of village needs.

- Yet another approach to improving social and health conditions in the rural milieu is collaboration with already existing services. Unfortunately the inherent conflicts arising as to which organization will have control over implementation of which specialized project as they are presently structured in Mali rules this approach out for the immediate future. In addition serious staff shortages or sudden transfers of key persons without their immediate replacement can impede indefinitely already built-up momentum.

Recommendation

That Operation Millet improve the quality of life of rural subsistence farmers in their zones of operation.

Justification:

- that the basis of growth based solely on the augmentation of production is fragile and to consolidate this growth, action should be enlarged to take in bit by bit other domains;
- social progress (maintaining agricultural workers in good health, increasing the capacity for self improvement) is necessary to the economic success of the Operation. It is therefore useful for it to contribute to social progress in order to avoid disequilibrium and blocks one such an economic stage is reached;
- the acceptance by the population of an important (production) project

is difficult -- it would be facilitated if the Operation included a series of related preojects easing its insertion in the zones targeted;

- the effects of sub-projects reaching all the inhabitants of a zone who contribute directly or not to the actualization of the Operation's productivity goals would facilitate Operation acceptance in the zone and benefit all the inhabitants. (e.g. first aid centers for treatment of wounds for Operation model-farmers and other farmers);
- the Operation is a symbol of modernism in the area: and as such represents the future. It would be appropriate for the Operation to interest itself in those inhabitants and producers who are most concerned for its success (immediate and long term) namely - youth;
- finally, the Operation is well organized for action and without much modification could become the structure though which projects are implemented for youth, children, men and women.

Community Development as a Sub-Project of Operation Millet

A Community Development project built into a larger non-integrated agricultural project is vastly more difficult than one separated from the Operation. Such a project may be considered tiresom by regional services whose cooperation is essential to program implementation. Prejudicial attitudes against social services in favor of "seen" agricultural tools and results mitigate against integration. The new project will put a heavier burden on already busy people. No doubt one could argue for a separate project. But if one assumes that the

population is a vital component of development and the goal of developmental activity in the target agricultural population is primarily production of millet as it exists now, then separating the community project from the agricultural will invite dangers. If we aim to improve braodly the health and living standards of the farmers, we have to assume that as a result they will be more productive and better farmers if the components of the project are integrated into current ongoing projects. Micro-scale projects seem to pay very valuable dividends. But given that a community development component to Operation Millet was not developed along macro lines, it would appear favorable to advise a micro - to - macro planning design. The design levels will have to be more human, closer to the community, and will have to depend more on local human will than has been true in the past. The extra energy will have to be expended.

Behavioural Factors

1. relative to existing attitudes, which developmental activities will be the easiest to undertake first?
2. which activities will raise the community's confidence?
3. what are the felt needs of a community?
4. what are the roles of men and women in the family; income producing activities; the community?
5. what are the roles of the young and how do they interrelate with those of adults?

The first two questions are addressed in the Program Design; the last three questions are addressed generally and in detail in the first half of this report.

Priority Classification of Problems

Despite the efforts undertaken by different services, conditions in which people live in the rural target area is characterized by the gravity and urgence of problems not being resolved. They are in an equal priority:

1. the high rate of mortality/morbidity particularly in the 0-4 age group
2. the inferior access to assistance and education of the majority of women and girls
3. the inadequacies of nutrition with grave consequences for the 0-4 age group
4. the migration of youth
5. the underemployment and unemployment of youth with minimal formal education
6. the distortions between rural and urban zones in delivery of social services
7. the poor physical condition of the rural populations
8. the absence of permanent potable water supplies.

The Program Design outlines a methodology to implement assistance to these priorityeneeds with recommendations for addressing related problems.

Program Design

The Interdepndence of Problems

Each technical specialist can bring a contribution to each situation (e.g. doctor, vacinnator, public works engineer, the vet, school instructor, agricultural agent, matron, etc.) In fact the solution arrived at, case by case and by each specialist appears worthless in the long run, in that they are not considered together and treating at the same time the basic problems with sequential intervention:

a) the public health services offer cure, vaccination and some sanitation education. But it is not organized to radically treat the causes of contamination.

b) the services responsible for the provision and treatment of water and its use are incapable of guaranteeing the potability of the water and its treatment if the contamination causes are not erradicated; the carriers of germs and parasites are are not sterilized; and the practices of the population in hygienic matters not addressed.

c) nutritionists cannot treat the effects of malnutrition (which translate into disease) unless they are assisted by agricultural technicians in improving the quality of foods and diversifying production in order to have concise responses to specific needs (proteins, vitamins, minerals). In addition nutritional improvements are worthless without a corresponding effort to eliminate parasites.

d) school teachers cannot respond through the classroom curricula to the improvement of village life.

e) the Operation Millet stimulates the production of a specific agricultural product and increases the revenue of the head of family. The effect of the Operation on the quality of life is week, In the absence of social measures accompanying economic growth, the condition of youth and women is not modified, particularly in health, nutrition, education and the use of supplementary revenue.

In planning a project one must take into account the fundamental institutions of the society. Men, women, children and youth have specific roles and a different perspective on development accordingly. This spatial dimension must be taken into account as constituting an essential condition for the success of a new orientation. Technical specialists must treat basic problems in an integrated manner in accordance with the cultural roles assigned the members of a given target population.

The interdependence of the Ecology

A specific symbiosis exists between the human group, the soil, vegetation, animal life and the climate. The influence of the environment is particularly perceptible in regards to mothers, children and youth. The ecological conditions:

- microbic and parasitic infections and thusthe levels of morbidity and mortality
- climatic rigors and their effect especially on the health of children (pulmonry infections, dehydration, etc.)

- agricultural production and its nutritional significance
- technical or symbolical references, contributing to vocation and education
- the chances for development and improvement in the quality of life.

Add to these ecological conditions, unequal demographic pressures, unequal penetration of modern economic techniques, and the unequal division of equipment and administration services and one finds that development in a given zone must be perceived as starting with the smallest ecological unit - the village.

A policy of improving village life is connected to installation of potable water supplies, nutritional and sanitation education, and augmenting revenue. By starting from the village reality and enlarging upon it to an approach to improve rural conditions one arrives at a

List of Needs

1. One source of potable water, (most often a well), accessible, permanent, equipped and clean.

   Justification: clean water is the primary element for servicing the needs and progress of a community. The insufficient quantity of wells and the pollution of those already existing justify wells installation as a priority input. Accompanying wells construction should be

2. Construction of latrines, or in lieu of that pits, in which excrement is covered with earth.
3. Refuse dumps - the gathering of garbage and manure at a relatively far distance from villages.
4. Vegetable gardens well placed in relation to well, in sheltered enclosures.
5. Reforestation for erosion control, wood fuel and lumber.

6. Communal granaries for pre-school lunch programs.
7. Medical depots for basic drugs and first aid.

A disproportianate amount of work falls on women. To include them in water management, nutrition and health education their present workload must be lightened in order for them to benefit fully.

Work Lightening Needs

1. day-care centers functionning during field work hours.
2. multiplication of water sources and facilities
3. reforestation of fuel woods near villages
4. light transportation for harvests, water and wood and gathering plants
5. hand cranked millet mills
6. decorticators
7. oil presses

For the youth's special needs:

1. grouping of young boys and girls into Clubs de Jeunes Agriculteurs/trices - young farmers clubs.
2. socio-political intervention with elders for acquisition of landholdings for the clubs
3. cooperative entreprises utilizing opportunities afforded by growth of towns and the modernizing sector, e.g. a cooperative bakary.
4. non-conventional education. Functional literacy components on nutrition, health, agriculture.
5. apprenticeship training; mechanics, carpentry, masonry, sewing, dyeing.

To augment revenue of men, women and youth and equitable disposition of revenue:

1. development of small food processing industries and baby foods
2. agricultural extension education for women and youth as well as men
3. development of small dyeing industries
4. market gardening
5. functional literacy, emphasizing arithmetic functions

11. Structural Inputs for Community Development Implementation

The pivotal structure to improving the quality of life in villages is organizations of villagers themselves to help themselves. Unless this basic structure exists and functions viably all other personnel and technical inputs will be strictly decorative. All implementing structures then must have as their sole function the technical and logistical support of village organizations, (activity committees).

The aim is to encourage villagers to organize themselves into groups. The rationale for groups is:

- they offer a propitious milieu for initiating change; members of a group have already taken the first step towards change by proving their interest in the group.
- the animateur/ice can reach a larger number of people in less time
- groups will adopt new methods (especially health and agricultural) without the anxiety attached to an individual who may risk neighbors reprobation and greater financial loss if the new method is a failure.
- emulation between members of a group is an appreciable stimulation.
- exchange of information is easier between members of a group.

The same rationale for establishing groups pertains to keeping them small. An unwieldy number of members can break down communication and experimentation. The ideal group membership is a dozen or so members. Rather than expand membership as new individuals express interest to join, new groups should be formed creating a multiplier effect.

The grouping of villagers into activity committees is by far the most important and most difficult task facing CD agents. Natural resistence to change will have to be overcome by increased confidence established between the CD agent and the villagers. It is not unlikely that confidence building will take two years to attain - the process is slow, painstaking, and at times frustrating to even the most motivated animation agents. But the process is hardly one way; as the villagers start to think about their priority needs, the CD agents are educating themselves to ways to help satisfy those needs.

Once a grouping of villagers is organized, the CD agent will advise the selection of an animateur/ice by the group in village assembly. The animateur/ice in turn:

- get villagers to think about priority needs
- helps the group to analyse the means and possibilities of ameliorating the problem or need
- gets the members of the group to act on the need.

The group then becomes an X Activity Committee.

The animateur/ices are trained in the activity subject selected usually at the arrondissement service facility that is supposed to respond (but cannot for want of materiel, staff) to the need. The animateur/ice is assigned a kit if applicable (first aid, tools, maternity aids etc.) and returns to the village to teach the newly learned techniques to fellow members of the activity committee. The committee in turn implements the new techniques in the community.

The groupings of villagers is repeated in a constant action oriented training and activity implemention program.

Some villages may identify profit-making activities as a priority over social services. The reason given is usually that even the modest outlay of cash for activity committee projects is beyond their means, and that their present labor productivity is already maximized. The villagers see no way in which they can increase productivity for income revenue. In such a case, the CD Agents can group villagers around technical inputs that either lighten labor and/or increase their productivity. These include: small appliances such as millet mills or oil presses for the transformation of produce, wheelbarrows, donkeys and carts for transportation of wood fuel, water and produce, reforestation of areas near the village, among others. An activity committee organized around a technical input must insure its equitable access to the entire community. This is sometimes difficult in large villages with several quartiers so technical input activities are better started with very small villages of 200 inhabitants or less. In either case, the CD agent must assure that villagers pay for the input partially or in whole, depending upon the specific input. For example, a millet mill activity committee will be responsible for collecting 5 or 10MF payments per measure of millet ground. The monies thus collected can be used to partially renumerate the Operation the cost of the input and to finance further village projects. Though seemingly simple a procedure accounting for finances is often beyond the capability of illiterate

villagers. Training in arithmetical literacy will have to be given to the animateur/ice heading this activity and carefully followed up the CD agent.

A representative from village Activity Committees, usually the animateur/ice always sits in on meetings with the Action Committee and serves as the link back to the Activity Committee and villagers.

The Action Committee

This committee is composed of local administrators and service directors at the arrondissement level and cercle level both. Chaired by the most important public servant in the community, the Chef d'Arrondissement it is created at the impetus of the CD Director and the highest public authority in the cercle, the Commandant du Cercle. Though this procedure may appear cumbersome, it in fact responds to the present administrative structure in the target area. Members of the Action Committee include:

- personnel from Functional Literacy (DNAFLA)
- personnel from CAC responsible for Cooperatives
- Social Affairs staff if any
- Medical representatives
- a representative from wealthy rchants groups
- a representative from the local chapter of the National Union of Women
- veterinary director
- Operation Mils extension agents

and representatives from various other technical services.

The Action Committee's goal is to assure the full participation of its members in the goals of community development. Their participation does not mean only token approval but active preparation of CD agents within training components which the technical services will supervise. They will also supervise training of village animateur/ices. The participation of the local services assures their full integration in a communal effort to improve local conditions. Meetings should be held regularly, depending upon the season. Av Evaluation Conference will be held yearly, at the end of the rainy season to evaluate progress or lack of it, and to plan remedial action or implement new project ideas.

It is quite possible that a village level Action Committee will slowly evolve from the development of multiple Activity Committees; this should be encouraged by the CD agents.
The structure of such an Action Committee would then be much the same as that of the arrondissement and cercle committees. Its function however will be to pressure local services into supplying needed services on behalf of the villagers. Socially and politically the village Action Committee reflects the realization of community needs through increasingly sophisticated means - a major step towards putting the technology and economy of post-subsistence society at the village doorstep.

Summary of Structural Inputs per ZER - Phase 1

Village Activity Committees — unlimited number of Volunteer members

Village Animateur/ices — unlimited number

Community Development Agents— 2 per ZER, one male and one female

Community Development Director for entire target zone.

Structural Inputs per ZER - Phase II

All structures will be multiplied according to new zones targeted. For each new Community Development Center targeted one pair of CD agents. Community Development Director assigned to Bankass Circle; CD Director already in Koro relinquishes supervision of Bankass CD Centers and expands his/her activity to include new CD Centers within Koro cercle.

Structural Inputs per ZER - Phase III

All structures of phase II repeated in new target regions: Duentza, Bandiagara, Djenne and areas identified by Operation Millet as priority zones for community development action.

12. Program Impact

Each pair of Community Development Agents should target five villages for program implementation per 24 months. This is a conservative figure, for agents working in villages where they were reared or have relatives will probably find the initial slow stages of animation work proceeding faster. Within a five year period, the CD agents in the ZER will animate programs in about 16 villages or a total population of nearly half the arrondissement (the average arrondissement contains 40 villages both large and small).

For the average sized village of 1000 inhabitants at the end of the first 24 months the CD agent should project approximately the following number of animateurs/animatrices:

2 —— nutrionists

4 —— infant care

2 —— matrons

2 —— youth activities

4 —— functional literacy

3 —— sanitation

4 —— first aid and health

2 —— niviquinization

2 —— work saving devices

2 —— income producing projects

2 —— gardening/chicken projects

or about twenty-nine trained animateur/ices. Each animateur/ice works with

about 12 other persons in the Activity Committee. 29 X 12 = 348 active volunteers per village, or over a third of the total in the first two years of program implementation.

By the end of a five year period, all the inhabitants of a village with the exception of infants will be included in part-time volunteer activities of one sort of another.

The impact of the multiplier effect of volunteers groups is potentially enormous. People after all are the only resource in that target zones that exist in surplus. Tapping this resource is the work of the CD personnel, working with Operation Millet agents and technical services already in the area.

At the end of a five year period of Phase I one pair of CD agents can animate through the volunteers, on a conservative estimate about 20,000 persons, men, women, infants, children and youth. Six pairs of agents will impact upon 120,000 inhabitants.

13. Site Selection

Both target cercles have priority sites for community development activities. The selection of sites was made in consultation with Operation personnel, cercle and arrondissement authorities, Hydrolic personnel, medical persons, representatives of the CAC Cooperatives, members of the National Union of Women, locally active private citizens and talks with villagers. The selections were based on meeting the following criteria:

1. Access. Is the area proposed accessible all or most of the year by vehicle?
   Is communication (facilities) good between cercle and site?

2. Openess of Population. Does the site population have a reputation for being open to change?

3. Water Is there a permanent supply of water for household use convenient to the site?

A fourth criteria expressed by Operation Millet was high production. In fact those sites selected are very highly productive zones.

Sites eliminated from selection were for lack of permanent supplies of water (most often) or inaccessibility. These sites will become targets for II Phase community development activities subject to:

1. the completion of the rural roads repair project (AID)
2. the installation of cement lined permanent wells by Op Mils.

Progress on implementation of these two projects must be monitored by the Community Development Director before proceeding with Phase II or modifying sites selection. Phase II sites are therefore suggestions only,

The cercles themselves were also eliminated from site selection Phase I on the basis of presently having adequate (relative to sites) social and health services.

BANKASS-CIRCLE

Phase I

Dialassagou ZER & village of Tori

Sokura ZER & SB

Ouenkoro ZER & Marou

Phase II - ZERs

Koulogo in Dialassagou Arrond.

Kani-Bonzon

Segue

Bankass

Baye

KORO CIRCLE

Phase I

Toroli ZER and Gangafani SB

Koporo-Kenieba

Madougou* & Karakene village SB

Phase II - ZERs

Diankabou & Kasaa & Bamba SBs

Dioungani & Tourou SB

Koro & Dangatene, Tourou, Yanjaga SBs

Dinangourou - Gangafani SB

Serious water deprivation exists at:

Diankabou
Dioungani
Kani-Bonzon
Segue

Access is difficult to: Segue
Baye
Dinangourou

* Madougou is marginally productive.

With the exception of Madougou, all six Phase I community development sites are high millet producing areas. Their selection by Operation Mils agents for CD activities appears to be in response to their high productivity and good credit repayment records. Cross checking revealed that these same ZERs are "open" as opposed to "conservative" communities and were generally cited as areas most likely to welcome and participate in activities improving community well-being. An otherwise very dynamic area, Diankabou had to be rejected for Phase I targeting for lack of adequate water supplies. Dinangourou though productive is situated 144 kilometers from the cercle.

The water supply criteria must be answered for implementation of Phase II target zones. Lack of water is the number one problem impeding a variety of programs: gardening, sanitation and health.

The populations within the target ZERS range from 30,000 for Dialassagou to 8,000 for Ouenkoro. All six sites are within a few hours drive by Landrover of Koro, and reasonably accessible given the present conditions of roads through the rainy season.

14. Program Implementation

Month 1 - Community Development Director selected. October 1st.

- CD Director receives on site training with Operation Rice Segou
- " " reviews CD program goals with all ZER personnel and arrondissement administrators and technicians. Hires assistant.

Month 2 - CD Director sets up recruitment program for CD agent candidates. Recruits 14 candidates for 12 positions, upon competitive exam.

- Prepares Training Segment

Month 3 - 4 Training of Community Development Agents.

Month 5 to 12 - Assignment of CD agents to sites with mobylettes.

- CD Agents: conduct studies of sites (see format Appendix)

  Start identifying priority needs in communities

  Meet with villagers in groups to explain their purpose

  Start encouraging the formation of Activity Committees

  Hold meetings with village or quartier council to select volunteers

  Identify potential community self-help projects

- CD Director holds Evaluation Conference at end of first year.

Month 13 to 24

- CD Agents working with groups of volunteers delineate immediate needs of the community.
- analyse with groups of volunteers those needs that could be realized most quickly.
- Volunteer/s chosen by village assembly for training as animateur/ics
- Animateur/ices receive two to four week training.
- depending upon the season, activities are implemented by the animateur/ices' Activity Committees assisted by CD Agent.

Month 25 to 36	- CD agents continue supervision of village community development activities but start identifying new villages for program implementation. - As volunteers assume more responsbilities, the CD agents repeats the cycle Months 5-36 in new target villages. - Phase II starts in ZERs identified by CD Director. Repeat cycle from Month 1 to 36.
Month 36 to 62	- Phase III starts in 3 cercles of Mopti Region. CD Director appointed to supervise Phase III zones. Director repeats cycle from month 1 to 36.

Phase I

month 1 to 4 staffing training
1 ----------4

contacts with population
5----------12

activities organization & implementation
13----------24

evaluation repeat cycle new target villages.
25----------36

Phase II

Staffing & training
1----------4

Same as Phase I
5----------12 13-24 25----------36

36-62

Phase III

Start Mondoro & [illegible]

cycle in: Duentza Circle-Bere, Boni
Djenne
Bandiagara

Personnel

One Community Development Director for 1st phase Implementation

The CD Director will be based in Koro which is accessible through most of the rainy season to Mopti through Bandiagara. Bankass is one hour's drive by Landrover from Koro.

Job Description

- Supervise, coordinate and control activities in ZER Community Development centers.
- Supervise recruitment of CD staff, their training, placement and job performance.
- Coordinate CD activities through Cercle Action Committee
- Establish and maintain professional contacts with the Community Development project under Operation Rice in Segou.

The CD Director will report to the Director of Operation Millet in Mopti. The duration of the work contract is 5 years, thereafter 2 years.

Qualifications

1. Working knowledge of local language, Dogon. Fluency in French.
2. Professional training and experience in rural animation.
3. Ability to work with and understand structure of Malian administrative system.
4. Proven experience in rural animation in the target area.

A candidate for this position already exists in the target area. See appendix .

Recommendations

The CD Director for the 1st Phase should be someone with proven performance in animating rural populations in the target area. Good performance requires a cultural sensitivity to local mores. The value of experience in the field over academic qualifications cannot be overemphasized.

The CD Director candidate, upon appointment will spend 4 weeks in intensive training of community development techniques as applied to an Operation, with the Director and staff of the Community Development program of Operation Rice.

Second phase Directorships can be recruited from the National School for Community Development in Bamako. The 4th year work-study program will provide candidates with on-the-job training and meet the School's standards for graduation. The work-study year will incorporate into it intensive Dogon language training. The School will graduate its first twenty students in June 1978. The CD Director should maintain regular contacts with the School. Operation Millet could and should recommend local 10th level secondary school graduates for training and the School. Partial scholarships granted students with the provision that graduating students will work at least three years for Operation Millet exclusively.

Community Development Agents

The CD Agents will be based and work at the ZER (Arrondissement) level.

Job Description

- supervise, coordinate and control activities within the ZER zone to which assigned.
- recruit village volunteers, coordinate their training with CD Director, and supervise volunteer projects at village level.
- coordinate community development activities in the ZER through establishment of an Arrondissement Action Committee.
- recommend small projects funding to CD Director. Upon approval supervise financing and accounting of project monies.
- establish and maintain working professional contacts with arrondissement technical and social services personnel.

CD Agents will report to the CD Director. The duration of the work contract is five years, renewable thereafter every 2 years.

Eligible Qualifications

1. Fluency in local language, Dogon. Speaking, reading and writing ability in French equivalent to an FSR 3 rating.
2. 9th grade graduation from secondary school.
3. Resident of target area, and knowledgeable of culture.
4. Assurance of written commitment to work in operation initial for 5 years.

Recruitment

CD agents will be recruited from the locally available pool by the CD Director. [illegible] will [illegible] candidates for qualification. An equal number of male and female CD agents will be recruited. Candidates will be [illegible]ed for qualifications by competitive exam conducted by Operation Millet CD Director and Chef de Centre, with final approval of candidates by the Director of Operation Millet, upon completion of Training objectives.

Training

The CD Director will coordinate all training activities with appropriate Operation Millet personnel and local services for CD agent candidates. Candidates will not be hired until they have met all training objectives as set by the CD Director. An attrition rate of 2 to 3 trainees during training should be anticipated for the first group of trainees and compensated for in recruitment of candidates.

The Training of CD agents will encompass CD agents' responsibilities and techniques of rural animation in an intensive 8week period. Training will be held, at the discretion of the CD Director, in Koro and Bankass both, for all candidates, and will emphasize the practical over theoretical.

Training Segment:

Week 1 and 2 - orientation to Community Development & Training Objectives
- orientation to functions and services of local services
- site visits to local services' projects
- evaluation and feedback of 1st fortnight's training objectives

Week 3 - 4 - Sanitation and health conditions in target area

- practical demonstrations sanitation and health preventative measures
- Trainees divided into small groups for on the job training with health services
- Health and Sanitation personnel evaluate trainee performance

Week 5 - 6 - Nutrition, agriculture and chicken raising

- practical demonstrations and on-the-job training with services involved
- trainees will build a mud brick chicken hutch and runner
- trainees will lay out vegetable garden enclosure
- trainees will be assigned malnutritive children at FMI clinic to supervise morning and evening preparation of enriched foods and feedings with children's mothers
- evaluation of trainee performance by service personnel from health, agricultural (by MMS), and veterinary staff.

Week 6 - 8 - Functional literacy, group dynamics methods, administrative orientation

- Trainees will be evaluated for meeting all training objectives by training staff. Candidates deselected will be notified 2 days prior to end of Training.
- Trainees appointed as CD agents, assigned insignias and diplomas.
- CD Director holds individual conferences with CD agents to:
  - a. select job site
  - b. ensure mutual compatibility of CD agent pairs
  - c. confer on site conditions
  - d. establish 1st year site objectives

Recommendations

A. Methodology of community development will be re-inforced throughout Training period. That is, group dynamics methods. The trainees must understand their role as animator of villagers rather than implementor of village based projects. Trainees must understand that their job performance will be evaluated by their ability to organize village volunteers into village self-help activities. The methodology by its nature is slow to show immediate results; trainees should comprehend both the limitations and potential of village animation and be prepared for likely set-backs, as well as steady progress. The CD Director along with all the local services training personnel must emphasize their availability as resources for the CD agents in the field. Likewise, CD agents must emphasize, in the field, that they are facilitators for local services personnel.

B. Suggested Site Visits

During the health and sanitation segment: Sangha medical post to -

- inspect local medical facilities
- observe the resident nurses training techniques of health and sanitation training for schooled and non-schooled youth
- observe management of locally built and locally financed maternity
- observe resident nurse's visitation techniques with patients in villages
- observe usage of traditional medicine with modern medical methods
- construct pit latrine in Sangha village environs

Koro Medical Post and Pottery concession to:

- learn techniques of water filtration with clothe
- learn techniques of water filtration with pottery filter at Koro maternity
- establish relations with potters for future manufacture and marketing of pottery filters

Koro Water and Forestry Service and nearby dune area:

- learn effects of soil erosion
- learn techniques of reforestation
- learn techniques of fruit trees planting and maintenance

Pele or Baropeli Catholic Mission to:

- observe techniques of literacy instruction in Dogon

Other site visits can be scheduled by the CD Director as necessary. Training should be held ideally in November and December in order to assign agents their sites by the first of January at the beginning of the dry season. Farmers and youth are relatively free of time consuming labors at this time. This season is tradtionally one devoted to ceremonies and celebrations.

Site Assignments

The Community Development Agents should if possible, be assigned the site of their choice, hopefully in the area they were reared. Self site selection will ensure fewer complaints by personnel on the basis of cultural incompatibility, dissatisfaction with local conditions, etc. A female and male agent will be assigned together to each ZER site. The agents will share office space with the Operation Mils extension agents. In the absence of space, the CD Director along with the Chef d'Arrondissement will locate alternate building facilities. If the latter is also absent, the CD Director may finance the construction out of mud brick and cement of a small 3 room community development Center building. However every effort possible should be made to use buildings already on site, repairing them if necessary. Most of the sites are already thus equipped. Office materials, file cabinets etc. will be obtained from Operation Millet stocks.

1st Year Evaluation and/or Retraining

The Cd Director will hold a week long Evaluation Conference with the CD agents to evaluate progress of community development activities, identify problem areas and recommend solutions. At the CD Director's discretion s/he may organize additional training for some or all of the agents. The Evaluation Conference and Training segment should be held at the end of the rainy season - September - when community development animation will be slowed down in correspondence with intense agricultural activity.

Job Performance Evaluation - CD Agents

Recommendation - that all agents be put on a year's probation for the first year in the field subject to job objectives the CD Director will set for each agent at the end of Training. Evaluation of an agent's job performance will be the CD Director in equal partnership with arrondissement level service personnel with whom the agent works and meetings with villagers with whom the agent works. Every attempt possible should be made to include the evaluative opinions of villagers in job performance; an agent who is respected in a village may not meet the expectations of a health officer for example. Due attention should be paid to the social acceptance of an agent in the rural milieu.

Village Volunteers

To be called animateurs and animatrices.

Based in villages in which volunteers live, the possible numbers of volunteers is unlimited.

The village volunteer head's a village group called an Activity Committee - comite d'activite which implements a specific activity. The villagers comprising these committees are called Volunteers - Benevoles.

Job Description - animateur/ice

- supervises, coordinates and controls chosen village activity
- recruits volunteers to assist in activity
- assists CD agent in identifying village needs, dynamic village leaders as potential animateur/ices and sources of local assistance
- represents village at arrondissement Action Committee
- supplies feedback to CD agent on progress and/or problems in activity implementation

Qualifications

1. No age limit.
2. Accepted member of the community.
3. Ability to guarantee part-time or seasonal-time involvement in village activity.
4. Speaks local language fluently. Socially/culturally fully integrated into community.
5. Education - none to maximum 5th year primary school.

Recruitment

Animateur/ices are recruited by and through the village assembly. The village assembly will identify candidates for activities considered priority by the village in consultation with the CD agent. The candidates are informed from outset of selection that they will not be salaried for their work by the Operation. The village assembly will devise a system of renummeration for the animateur/ices services per their means, apart from the social renummeration of high status within the village of animateur/ices.

Training

Each village animateur/ice will receive training in the selected activity at the arrondissement or cercle depending upon the activity. The training will be from two to four weeks depending on the activity and the time the candidate can spare from personal responsibilities. Training will be coordinated by the CD agents, using the same training techniques with which they themselves were trained, with appropriate local services personnel. Training will be for specialized tasks:

- health: first aid
- health: water management
- health: sanitation
- health: niviquinzation
- maternal care
- nutrition - children
- nutrition - mothers and pregnant women

- pottery filters
- gardening techniques
- reforestation
- fruit orchard management
- repair and maintenance of small appliances e.g. millet mill
- functional literacy: adults male
- functional literacy: adults female
- functional literacy: youth
- chicken raising

and such other tasks as are identified by the village assembly itself. Because most animateur/ices will be illiterate, training must emphasize practical learning-by-doing techniques. Training for specific tasks must be limited very narrowly to the task; despite the obvious desire to inculcate all aspects dealing with sanitation for example upon one animateur. At the end of training, the animateur should be informed that his or her desire for additional training will be welcomed. The animateur/ice is graduated from training in a ceremony attended by members of the arrondissement Action Committee, a photo if possible of the occasion is taken, and the new animateur presented with a diploma by the chef d'arrondissement.and the Operation Mils insignia for his shirt or her pagne. These ceremonial trappings invest the animateur/ice with high social status in the community and should not be overlooked.

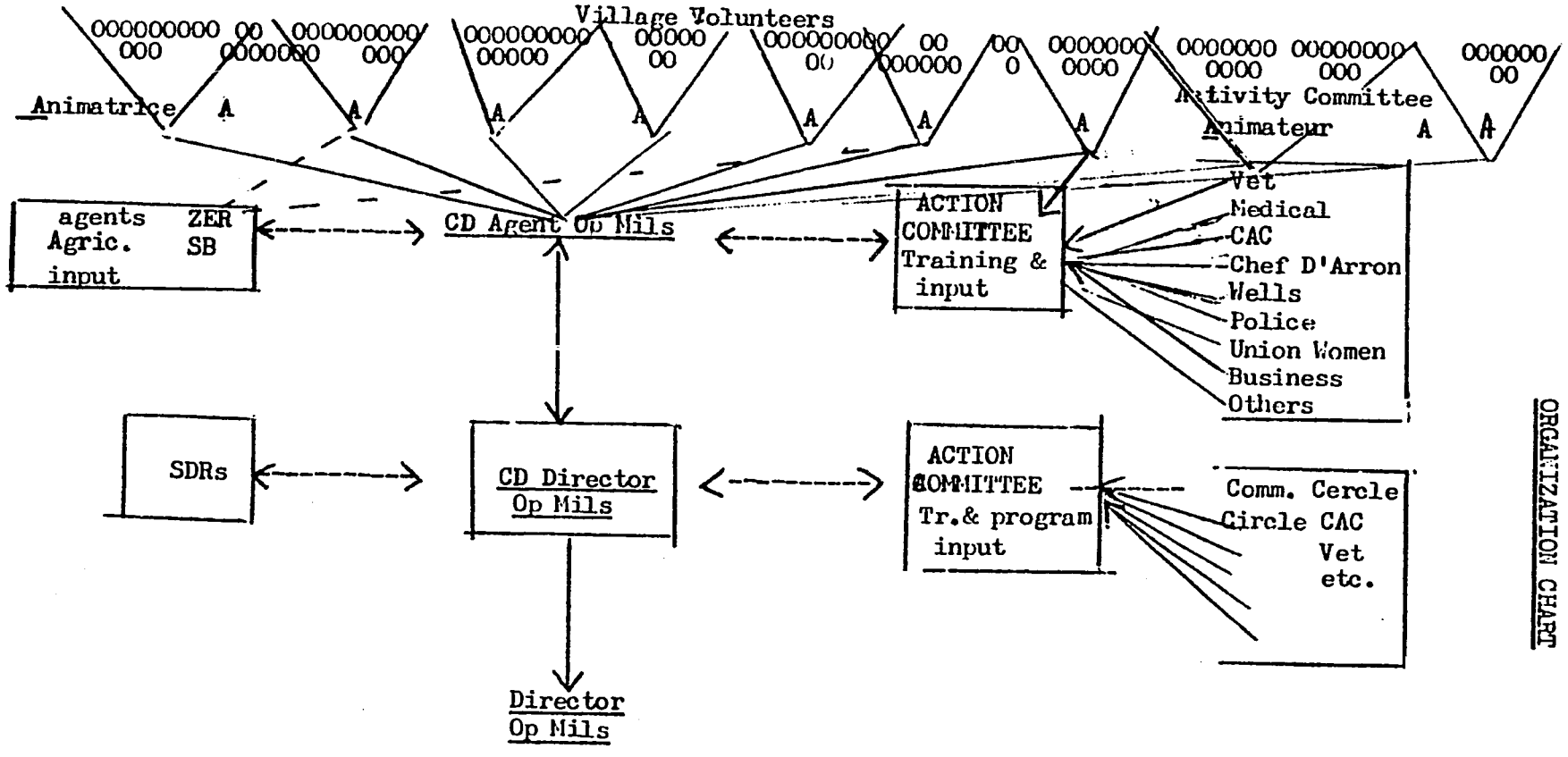
Evaluation of Job Performance

Evaluation will be made by the villagers themselves in terms of tasks accomplished. This amounts to self-evaluation of the entire village community, for the animateur/ice cannot perform the tasks assigned without the full cooperation of the community. However, the members of the Activity Committee with whom the animateur/ice implements the task can provide valuable feedback information to the animateur/ice and village assembly both. The CD agents will at all times be supportive of animateur/ices but should, if mediator situations arise between the village assembly and the activity committee diplomatically maintain neutrality. That is, in possible disagreements, jealousies, or conflicts of interests within the community involving the animateur/ices the CD agents should let the village assembly mediate the disputes.

The CD agents may recommend that animateur/ices require further retraining.

The CD agents should encourage an animateur/ice to double him/herself. That is, given a set period of time, identify for the village assembly another candidate for the identical task in other quartiers of the village. This multiplier effect will of course depend on the animateur/ice's overall performance, but is critical to solving felt village needs. For this reason the CD agents will closely follow up animateur/ices job performance, supplying resource information, encouragement, and advice as needed.

ORGANIZATION CHART



15. Example of Community Development methodology applied to Water Management

Problem: guinea worm infestation of adults and children

Consequences: high disability rate due to pain in lower limbs and decrease in agricultural productivity

Solution: Change attitude of population towards the condition as "normal" to one which can be treated with local resources. Educate population to erradicate guinea worm in drinking water.

Method: Group discussions. At the height of the rainy season when guinea worm becomes epidemic, CD agent holds group discussions on health problems in general. The Agent concentrates on discovering what the local people do or don't know about the worm's cycle. CD Agent and animateur/rice for water management demonstrate graphically with glasses of water from the local well and puddles the existence of the worm swimming in the water and its journey through the body to the lower limbs. They demonstrate method or methods of breaking the cycle. The methods demonstrated depend upon the cash income of the groups addressed, as some methods require considerably cash expenditure.

Demonstration 1 - filtration of drinking water by passing well or puddle water through several folds of a woman's pagne. The worms are large enough to be seen with the naked eye.

Demonstration 2 - adding pomengrate solution (iodine) to pots filled with water. Alternatively eau du javel (clorox).

This demonstration presupposes the ability to buy the disinfecting products which are both available at large markets and state pharmacies, and thus a cash income with savings. Sequential demonstrations should never be out of sequence; that is demonstrations should emphasize first measures using local resources requiring no cash investment. Ommission of Demonstration 1 before Demonstration 2 will discourage the group from cleaning their water for lack of money and may well reinforce a fatalastic attitude towards disease. Group must know to measure drops.

Demonstration 3 - filtration of water with sand in a specially designed pot. The pot looks like an everyday water pot but has a small spout three fourths down the side. The spout is sieved and water drips slowly into another pot rigged beneath the filter. The sand in the pot must be changed when dirty, about every two weeks depending on the source of water. Sand filtration eliminates most water borne diseases, but not parasites. The filter pots can be made by local potters based on models available in both Mopti and now Koro at the maternity clinic. Usage of filter pots requires a large cash income as they cost between 500 and 700MF($1-1.40).

Using these type of filters requires high motivation to not only regularly use the drinking water thus filtered, but to clean the receptacles and fetch clean sand which is very heavy. The CD Centers can encourage usage of pot filters by:

- having one on display and clean at all times
- assisting in the financing of filter pots for day care centers, activity committees income producing projects
- discussing production costs and design with local potters to reduce marketing costs while retaining profits for the pottery women

Demonstration 4 - Boiling water for up to 10 minutes over charcoal or wood fire. This method eliminates all parasites and water borne diseases. Yet the labor inputs more or less relegate this method to the wealthy. Inputs: large quantities of wood fetched by the women, and pot/s for boiling the water and storage. In the absence of potable water sources near the village the simple boiling of water by an entire village would require:

- donkeys and carts to fetch wood in bulk quantity
- adequate supplies of wood and therefore reforestation projects
- pots with lids to boil and store water

and not least the motivation to use the clean water.

Analysis

To break the vicious cycle of attitude - disease - fatalism- one must begin with local resources available in a continuing educative process, to reduce the cycle to manageable proportions. As mentionned, to omit Demonstration 1 and proceed with demonstrating the second method of safe water management would result in maybe a few of the wealthier families participating while the remaining families in the community find the whole idea of colored water most amusing. Water is sacred to people whose lives and livlihood depend upon it and its scarcity. Nommo the God water and Yourougou the spirit of drought comprise the two most important Dogon deitics who symbolize the eternal conflict for survival. An approach characterized by cultural insensitivity on the part of an animation worker spells doom: by announcing to the population "your water is dirty and that's why you are sick" the animator or CD agent will offend the mores of the community and surely alienate him/herself forever from the community. The approach to teaching good water management is just as important as its techniques.

Germs and parasites cannot be seen. It is very hard to convince a peasant woman that the water she is carrying on her head contains disease, for, unlike her other frames of reference, what is not seen does not physically exist. She can and does make the connection that fertilizer improves millet yields for the yields are apparent. For this reason water management projects should start with educative projects dependent on the recognizable guinea worm.

In changing the attitude of the population from a "normal" orientation to one that realizes that "normal" is both unhealthy and treatable, the method most likely to succeed is a simple filtration, technique with cloth. Once the connection is understood between the source of guinea worm infestation and its erradication the CD agent is free to elaborate on health prevention concerning sources of parasites and disease, fecal deposits and disease, etc. While other water borne diseases exist in great number and they can not all be erradicated in one fell swoop, the important point is that the educative process has begun. The groundwork has been laid - the community has at its own disposal the means to improve its health.

The educative process is constant. Women are responsible in the communities for fetching water. Their labors are heavy. It is little wonder that after a long day in the fields with the preparation of the evening meal ahead of them that they scoop up water in puddles as they walk home, pots on their heads. Even the proximity of a (rarely clean) well to their concession does not guarantee that the women will not scoop up water from a puddle closer by. The lightening of the heavy workload of women and girls by the introduction of labor saving devices within the community would increase the time women could devote to safe water management, and profit the entire community's health.

16. The Peace Corps and Community Development

Six Community Development Centers and one CD Office in Koro are targeted for immediate implementation. With approval of this project the project could start up with the appointment of the CD Director in September to begin on site work by the 1st of October or thereabouts. It is, as pointed out already, critical that implementation begin no later than this Fall in order to ensure on site CD agents at the beginning of the dry season. The role of Peace Corps Volunteers would add an extra dimension to implementation of the program that can offer valuable benefits.

The two most important contributions of Peace Corps to developmental programs are:

- the willingness and enthusiasm of the PCV to undergo climatic rigors and domestic deprivation in order "to get the job done"
- the flexibility of both the organization and the volunteer in adjusting to in-country and on-site problematical situations.

These two qualities, apart from obvious other benefits that the Peace Corps offers poor countries can be tapped within the context of the Community Development project for Koro and Bankass.

It is highly recommended that PCVs be recruited and trained for positions as Community Development Agents in the project. The most widely available pool of Volunteers is the so-called ABG generalist; usually a recent graduate of the humanities with no particular specialization, but upon training and job evaluation a proven quantity in non-specialized assignments.

Recommendations

- Peace Corps/Mali already has two experienced PCVs working in rural sectors of the Operation Rice Community Development project. Both Volunteers worked as rural animators in Senegal as well. Their experience in the field should be tapped for the training segment involving PCVs for Community Development Operation Millet.

- The Peace Corps will have, in its summer to fall Training Program 1977 18 or more Volunteers for rural health and rural animation programs. Not all of these Volunteers have sites assigned them as yet. Negotiations for inclusion of six to eight volunteers in the Community Development project should begin immediately. The normal time span between request for a PCV and his or her site placement is 12 months. AID and Operation Mils can shortcut this time lag by propitious planning with Peace Corps in order to guarantee the Volunteers needed.

- Volunteer pairs, male and female will be assigned to the following sites in order of priority and the available pool:

Bankass Circle — Dialassagou ZER, an exceptionally large arrondissement. One pair PCVs.

" " — Ouenkoro ZER. One pair PCVs. If male and female pairs are not available, then one PCV should be assigned to Ouenkoro and one to:

" " — Sokura

Koro Circle — Koporo-Kenieba ZER. One pair PCVs.

" " — Toroli. One pair PCVs. If male and female pairs are not availalbe, then one PCV should be assigned to Toroli and one to:

" " — Madougou

Koro Main Community Development Office - one PCV assigned to assist CD Director in overall program implementation.

The PCVs work normally for two years with options to renew their contract. Volunteers in rural programs have a fairly high re-enlistment rate for third years. This option is taken into account in Peace Corps' overall management planning for each country serviced. The Peace Corps can remain flexible in meeting host country needs and can also do so within the contexts of this program. Thus if atthe end of the 1st year of PCV placement in the Community Project, evaluation portends good results, the Peace Corps can request additional PCVs to replace those planning on departing a year's hence, and/or expand its recruitment to meet program needs.

The above PCV slots may not be filled from the available in-country pool this Fall. Provision should therefore be made between Peace Corps, Operation Millet and AID to recruit and train Volunteers for the open positions as soon as possible.

Future Volunteer positions per expansion of the project into Phases II and III should be analyzed and projected as necessary by the Peace Corps staff in conjunction with Operation Millet.

Job Descriptions

These are exactly the same as for Community Development Agents.

Job Training

Peace Corps' expertise in training the ABG Generalist to fulfill task is solid. The Peace Corps staff with the CD Director in Koro will

devise a technical training program similar to the eight-week training component for Community Development Agents above pages 126-9 . Ideally, training in Dogon language can begin before the PCV arrives on site for the technical training component. Training in technical matters should be in the project area - Koro and environs. Both Malian and American Community Development agents would profit from training together and all attempts should be made to coordinate arrival of Peace Corps Trainees in-country with the Community Development Training program in the target areas.

Evaluation criteria of PCV performance will be established by the Peace Corps and Operation Millet's Community Development Director. Likewise supervisory responsibilities, the input of PCVs with specialized knowledge (e.g. carpentry or nursing) or skills.

Peace Corps Volunteer inputs are lateral into the project; that is the project design and implementation remains as outlined with the exigency for PCV support in the budget.

Budget for PCVs

- housing for 24 months provided by Operation Millet through housing allowance of 20,000MF per month per Volunteer = $ 960.00 each (480,000MF) X estimated 8 Volunteers Phase I = $7,680 Total Housing
- support costs (mobylette plus running costs and repair, and miscellaneous items) provided by Operation Millet = $ 550.00 each (275,000MF) X estimated 8 Volunteers Phase I = $4,400.00 Total Support Costs

<u>Note</u> All PCVs are considered Malian civil servants and all work for the government of Mali. As such they are expected to meet standards of conduct and performance as set by the GOM. Their living standards are to approximate of those of their Malian colleagues per Peace Corps policy.

17. Budget for Phase I, II and III

Phase I from start-up to month 24 ——————— 24 ——— 36 ——— 60 ——— 72

Phase II from Month 24 to month 60

Phase III from month 36 to month 72

= total 6 years

PHASE I & II

Item	Total $	Total MF *
Category: personnel and training		
CD Director salary fixed with 15% increment after 3 years. p.a. = 200,000 X 3 = 230,000 X 3	25,800	12,900,000
CD Director salary fixed p.a. = 200,000 X 3	12,000	6,000,000
Personnel Training		
12 CD agents - phase I	1,000	500,000
18 CD agents - phase II	1,500	750,000
Conference costs	1,000	500,000
Est.20 Volunteers @ 500MF per day, each. = 10,000MF - 20 Vols per ZER X 6 Arr. X 6 years - per Vol-10 days training each	15,400	7,200,000
est. Phase II 20 Vols per ZER X 9 ZER X 3 yrs	10,800	5,400,000
category: equipment & vehicles		
Pick up Landrover (1) Model 109 & maitenance by (duty free) Op Mils garage	7,381	3,690,565
42 mobylettes (costs recuperated in total) @190,000ea	22,800	1,140,000
Operating costs mobylettes 2500 per month @		
12 " X 6 years:	43,200	2,160,000
18 " X 3 "	32,400	1,620,000
Nova cereal mills, small model (Siscoma) X 25 @ 65,000MF ea	33,100	1,655,000
Maintenance costs - mills at 7500MF ea X 25	3,750	187,500
Small appliances, oil presses, hoes, etc.	40,000	2,000,000
9 donkeys @ 20,000 each	3,600	180,000
6 carts at 40,000 + 6 harnesses @ 2,500 eaMF	5,100	255,000
25 watering cans @ 2800MF ea (SCAER)	1,400	70,000
25 rakes @ 750FM ea (SCAER)	337.50	18,750
Vegetable seeds for 25 gardens	20	10,000

	Total $	Total MF
Chicken hutch based on SOTUBA plan. Fabricated from banco with straw roof. For 200 or 100 chicken capacity: construction costs none.		
9 chick feeders, sheet metal @ 500MF locally made	8.90	4500
9 chicken feeders, " " @ 550MF " "	9.90	4950
9 adult chicken feeders "" @ 850MF " "	15.30	7650
9 large waterers, clay @ 250MF " "	4.50	2250
1 breeder, 200 chick capacity 7000MF " "	14.00	7000
Total 1 Chicken Hutch	52.70	26350
15 Chicken hutches complete	795.00	395,250
15 sets of Sotuba chicks of 100, vacinnated or equivalent	100.00	50,000
Charts and boards with chalk - 15 sets	1500.00	75,000
Demonstration medical kits - 30 sets @ 1000MF ea	600.00	30,000
Demonstration cooking marmites, sizes 5,7, & 10 X 15	525.00	105,000
Funds for charcoal, wood and braziers X 15	1000.00	200,000
Demonstration pottery walter filters X 15 X 900MF	27.00	13,500
CD Center benches - 30	100.00	50,000
Miscellaneous supplies	2500.00	500,000
Functional Literacy materials	2000.00	100,000
30 sets CESAO nutrition charts @ 5000MF ea	3000.00	150,000
Construction supplies $1000 per CD Center X 15	15000.00	750,000

Grand Total = $291,634.50

+ 10% inflation
over 5 years = $294,550.84

500MF = $1.00

For the populations of Phase I and II target zones, which include the total populations of both Bankass and Koro Circles the cost per inhabitant over 5 years is $1.12, or .22 cents a year.

Phase III

The Phase III target areas have not been studied in detail to determine income distrubtion, demographic indices and identify priority needs. The Operation Mils personnel along with an AID consultant should determine exact priorities and budget accordingly. Phase IIIexpenditures for the time being must be assumed to be about one half of the submitted budget or

$ 145,000.000

Phase III like Phase II implementation dependent upon wells construction/Op Mils.

Cash or Labor Contributions of Villagers - examples	Total
Niviquine for children during rainy season, per family	150 MF
Cost of gasoline for bi-monthly PMI consultations from cercle per child	25 MF
Half the total cost of packet of vegetable seeds	75 MF
Grinding by hand-mill of large calabash of millet	10 MF
Needles and thread	150 MF
Fruits for nutrition classes (juices, purees)-in kind	--
Daba (hoe) for communal garden project	500 MF
Labor to cut banco blocks (mudbrick)&for construction day care centers, chicken hutches, etc. - in kind	---
Pressing peanuts in oil press - 1 liter	20 MF
Transportation costs of animateur to training site, half of total	400 MF
Renummeration to matron for maternity visitations	25 MF
Clothe donated by weavers for sewing classes - in kind	----

Villages targeted for Community Development activities should, at the end of the village evaluation of Phase I assume partial support of their CD agent. Contributions are Village Activity Group specific - cash for mobylette gasoline and parts; in kind labor or utensils for agent housing if applicable to the village, etc. The amount and kind of contribution to be specified by villagers with their CD Agent and the CD Director. The Arrondissement Development Tax of 200MF perperson should also be viewed as a future budget resource for community development projects - authorized by the Arrondissement Action Committee.

18. Recommendations to Program Manager - AID Consultant

The following recommendations are intended to assist the Program Manager in the practical Do's and Don'ts of implementing community activities. Though each Program Manager brings to a project his or her particular style and experience, these recommendations are presented to assist the Program Manager in application of methods within a cultural specific milieu. The recommendations and suggestions are based on observation of on-going community development activities in the region - their failures and successes, an appreciation of cultural attitudes gathered from six month's study of the area and finally a great deal of dialectical cogitation!

Animation

Changing an attitude is slow work. With women in particular. Given that women are not assigned decision-making roles in the villages they take very little interest in decisions made in the villages. It is important for the CD agent or animator to work on progressive sensibilization of this and other groups. Otherwise called "sensibilization des populations" one will hear this critical phase reiterated again and again by experienced community development workers - with reason. In villages where women have perceived a neccesity for - a midwife, a nurse, someone in charge of medicines - the goal has not been obtained because the women were

not organized themselves. And one can't organize u less there is a certain amount of unity - which is not always easy given certain family rivalries, questions of age groupings, priorities and so on.

If the women (or men) ask for preventative health training, then it should be offered even if the developmental worker does not agree that health training is the top priority at that given time. The same attitude should be applied to requests for niviquinization; but it is important that both men and women understand the necessity for malaria suppressives or else all efforts will be in vain.

Year-round niviquinization programs will take some time to implement. Though the community development worker realizes the necessity it will take a long time before the villagers do so. It is better to group villagers around at least rainy season niviquinization for all - children especially; later as income rises in the community, villagers will be able to afford year-round suppressives.

Functional Literacy

1. Classes should be held in the villages, rather than distant centers. This avoids exacerbating the already high exodus of young people into towns.
2. Minimum age for students at 16. Younger people lack motivation, a primary occupation and responsibility in the village. Young married people who become functionally literate are most likely to stay in the village because of their family and agricultural responsibilities.

F. Classes should be practically oriented. The CESAO FL materials* are ideally suited to the rural farming milieu. Alternatively DNFPA may be able to contribute materials and expertise. Intersperse classroom sessions with site visits: farming methods, butchering, carpentry, reading scales, first aid and preventative health.

Young married pupils who are functionally literate have an influence in the village beyond that of unliterate youth. This further helps in community sensibilization, particular of the problems of young people.

Youth Clubs and On the Job Training

Eighty percent of the young people live in the rural area. Environmentally poor nutrition and living conditions have direct consequences on physical and mental development and aptitude. While unemployment may be high in the nation, it is especially high among the young, who at the same time comprise the largest reserve of unemployed. Everyone complains about the exodus of young people to urban zones, especially boys, but few projects are aimed directly at them - the youth activities (Maisons des Jeunes) are mostly recreative. Operation Millet directs all its pilot farming projects at adult men; in a few short years boys who become farmers will present a new generation of farmers to be educated in agricultural techniques, and upon this generation the Operation will rely for consistently higher production. While some efforts have been made to make formal education more relevant to agriculture, the curriculum remains heavily academic and theoretically oriented. It is hardly surprising that the young are

*Materials should be distributed cost-free on the condition that the pupil meet minimum EL objectives within a certain period.

starting to develop a distaste for farming once they have even minimal education and literacy. (see above recommendations in functional literacy). What are the solutions?

1. establish a positive attitude to agricultural work
2. furnish young people with the means to undertake profit-making projects
3. initiate out-of-school programs for all youth, whether schooled or not
4. encourage youth to improve existing conditions in rural communities via youth clubs, service projects, etc.
5. establish vocational training programs with local services (e.g. veterinary, health, mechanics) on an apprenticeship system
6. group boys and girls around projects complementing the traditional division of labor by sex: chicken projects for both sexes
   gardening " " " "
   raising a cow, sheep for boys
   tailoring for both sexes.

(see tables on division of labor)

Avoid organizing youth projects in primary schools. Nothing is more discouraging to the youth or their parents than to witness the gardening produce for example sold for profit by the teacher/s. Unless of course the community development worker is assured ofthe opposite result.

One method to organize youth is to identify at least one very dynamic village adult who is sincerely interested in youth and has, him or herself, already high status in the community. This leader can become the youth-leader and communication link between the young and perhaps dubious adults of the community.

Work Saving Devices

Introduce these devices in small communities at first on an experimental basis - again grouped around a Hand Mill Activity Committee. for example The HandMill committee may be devoid of one literate member to keep accounts of fees collected. A member of a Functional Literacy Activity Committee should be recruited to teach a member of two of the HandMill committee arithmetic and notation by a learn-as-you-go system. See page 165 re Cooperatives.

Posters

The impact of clearly designed and attractive posters bearing simple non-verbal messages has been underestimated mainly because so few are used to communicate ideas. Posters or even billboards are cheap and placed in high density areas (markets, well used market paths, trails and roads) can communicate a message to a large number of people with very little effort. The posters can be designed by youth groups etc, with materials donated by Community Development agents. The youth groups can themselves ensure proper placement and maintenance of the posters. The posters may bear varying messages graphically designed in a sequential format. For example: the guinea worm cycle, a child suffering from colic before - and upon being fed a bouillie -after beaming with delight. The appreciation of visual materials is high in the rural illiterate area. Photoes and pictures from magazines pasted on hut walls are proudly displayed. The CD agents should capitalize on this visual appreciation by distributing small posters of local design bearing messages on health, sanitation, healthy fat babies etc.

Market Day CD Boutiques

The gathering of a large number of people at the weekly market offers Community Development agents a captive audience to receive their propoganda. A small area in the marketplace, shaded with a straw roof, like those of the traders could be obtained tax-free from the local authorities. Here members of Village Activity Committees who are attending the market, can in rotation and in accordance with marketing responsibilities, demonstrate the particular advantages of their activity to other villagers. Demonstrations can be held for: infant care, first aid, preparation of enriched sauces etc. The aim of course is to bring the message to the people where they are. One small stall in one marketplace can reach one thousand people where one Community Development agent could only reach perhaps two families in the same amount of time. The construction of a small daycare center near to the market, or the conversion of an already existing facility donated by the authorities or merchant and supervised perhaps by the local chapter of the Union of Women would increase the time women could spend at stall demonstrations. Different themes could be used for different seasons: guinea worm and malaria for example during the rainy season, etc. Eventually the day care centers could and should evolve into daily centers, with the small fees charged to mothers used to buy and prepare enriched foods for the children.

Retired Workers

As the modern sector in Mali evolves, persons retiring from it are often returning to their natal villages in their old age. Merchants, and civil servants thus placed are an untapped resource for community development activities. Often religious in their old age, their responsibilities to the "ulema - the community are keenly felt; being retired on state pensions on savings they have some funds that can be tapped for community projects. (An ambulance in Koro was purchased by a group of businessmen). These persons are well known, influential and respected in the community. They also, having lived in the modern sector, are usually sympathetic to projects that imply a better standard of living. The potential contribution of retired persons should be examined and encouraged by CD agents.

Marketing Women

All girls and women market at some time or other, depending on age, number of co-wives in the compound, distande to markets and economic need. The role of the woman in marketing subsistence and cash crops both hers and her husband's, is large. However no formal market groups exist, though middlemen traders comprise an informal sort of guild. Market women, as opposed to market men, usually sit all day in the sun, unshaded; the men dominate the shaded areas either those with trees or stalls with straw roofing. The reason for this disparity is the lack of money to build and roof stalls and to pay the tax collected by local authorities on such stalls; the women at market cannot afford either expense. If the marketing women were organized around an activity which would slowly increase their revenue they could eventually build themselves shaded stalls. The activity could be a child care center in which a few women take care of many children for a

nominal fee. Whatever the activity, the women should be encouraged to organize themselves around an activity that would profit and assist them: whether this be shaded market areas, income revenue to buy water disinfectants, income to buy dried fish to enrich the family and so on.

Summary

The recommendations above are only suggestive of many: ideas are only limited by the community worker's imagination and most importantly his or her knowledge of the people. A seemingly bright idea cannot work unless the idea is tested minutely for application in the community, taking into account fine nuances of cultural conditioning, the limitations and potential of income revenue, the attitudes of the persons to be affected by the idea, and the realization by them of the idea.

Contact List

An annotated contact list will be found in the appendix.

19. Appendix A

Death Rates according to landholding size

A Johns Hopkins University medical team implemented a community health program emphasizing maternal and child health in the Companiganj district of Bangladesh. The program is ongoing and the data presented is preliminary.

The team found, that even with a poor society those at the very bottom were the worst off - not surprisingly. The findings of death rates according to the victim's landholdings however are provocative in terms of Mali's expanding population and future pressure on the land. In the area of the Seno Plain, land availability is limited by the sandy nature of the soil and lack of water for irrigation. In the future, if population growth cannot be exceeded by a productive expansion-the message is ominous. Further population expansion may reduce the average size of landholdings and swell the landless population, which no doubt would first consist of women and youth.

Death Rate by Size of Landholdings in Companiganj, Bangladesh 1975

Size of Landholdings - by acre	Death Rate
None	35.8
.01 - .49	28.4
.50 - 2.99	21.5
3.00 +	12.2

Preliminary data, Johns Hopkins University School of Hygiene and Public Health.

"The less land a family had, the less likely were all of its members to survive a food crisis. Death was a frequent visitor to that one-fourth of the population that owned no land at all. A death rate of 36 within the landless group indicates nutritional stress. Those with three acres or more had a death rate of 12, only fractionally higher than that in Western industrial countries."

Appendix B

1. Do women receive agricultural extension services 4 yes 6 no 16 some N = 26
2. Do women have access to modern agricultural techniques?
   7 yes 12 no 7 some N = 24
3. Do women desire agricultural training? 14 yes ___ no 2 some N= 25

The above questions were posed to Operation Mils agricultural agents in the field at the ZER and SDR levels. Interestingly the same questions posed at regional headquarters received a flat "no". There appeared some confusion over what constituted "agricultural techniques". Apparently the agents assume that the women who work pilot farmer's field gain from the agent's educational services. Yet the agents agreed that women were not using new techniques in cultivating their own petit champs, perhaps because they are neither encouraged nor need to for lack of equipment. Though women respond positively, and the agents agree they do, to offers of agricultural assistance, the agents do not offer assistance. This may be due to their orientation to individual pilot farmers and lack of involvement in group teaching, or lack of supervisory support. While field extension agents appreciate the role of women in agriculture on the plateau, one never hears, as Ms. Ekalinen has observed, the farmer referred to as "she". Reorientation of agents during the training of Community Development Agents may succeed in changing this attitude, especially if supervisory personnel support their new efforts. This would of course benefit not only women individually, but production in general.

Appendix 2 Distances by kilometers between arrondissements & villages

Circle	Villages	Distance to circle Center Km
Dountza	Beré	76
	Mondoro	72
	Boni	70
Koro	Koporo-Kenena	32
	Toroli	25
	Madougou	63
	Diankabou	85
	Dioungani	72
	Dinangrourou	144
Bankass	Diallassagou	45
	Koulogon	28
	Baye	55
	Segué	67
	Wankoro	60 90?
	Konibouzon	40

US AID Roads plan

		km
1.	Segue - Diallassagou - Sokoura-Wankoro	65
2.	Bankass-Koulogon-Baye	55
3.	Koro-Dioungani-Douentza	160 o
4.	Dioungani - Dinangorou	60
5.	Samdougou -Bankass-Koporana	127
		467

Appendix D

Markala Cooperative, Segou Region

The Markala Cooperative was created through the guiding force of Mariam Thiam, Director of the women's training component of the Centre D'Animation Rurale-Mixtes for Segou. Her husband is an engineer for the Office du Niger at Markala; both are from the Segou area and the family is not likely to move from it for some time - an important factor in animation programs which often lose a dynamic organizer to the transfer of a spouse.

Mme Thiam is extremely dynamic. Trained in postgraudate microbiology, she however became involved with community development work in a sincere desire to put her organizing skills at the disposal of rural women. She expressly wanted women to rely on and develop their own abilities and resources.

Because Mme Thiam is from a Segou family, when she and her husband moved to Markala many relatives and acquaintances turned to them in emergencies for help, guidance and small sums of money. She now states that she would never have realized the limited cash available to women in Markala had it not been for her deep involvement in working with the group of women who now make up the cooperative. Most of the women she works with are women whose husbands are employed by the Office du Niger as agricultural laborers. Given their husband's small incomes and lack of access to land, the women looked for other commercial activities to supplement the family income. Over a periodsof months Mme Thiam discussed with women what activities they could start in order to earn money. The considered and rejected:

- market gardening (limited seasonal income, problems of land allocation)

- a communal rice field (again, inconsistent income, and more importantly Miriam felt the rice field would not "belong" to the women because they would need to depend to a great extent on extension agent advice and additional hired workers)

After months of careful discussions the women decided to learn to dye. An older woman living in Markala had experience in both traditional and chemical dyeing and agreed to teach the others. Mme Thiam obtained a small grant from SUCO (Canadian technical and small grants assistance organization) for initial materials, found a courtyard and room at the back of a nursery school and the women began to work. Many women initially wanted to join but dropped out when they realized five hours a day was required. The grou dropped to ten participants at one point. It is now back to twenty. A system of co-wives alternating days and women without co-wives comming in afternoons was started. Aft r much discussion it was decide that LOCMF a

month (.20¢) was all most women could afford to contribute to a fund supporting center activities. Gradually the women learned to dye. Marketing was a problem. A boutique in Bamako was started serving as the major outlet for the group's production. The boutique is becoming well known, the quality of work improving (dyed cloth now sewn into apparel), and orders are being received and filled punctually. The women have worked out a system of payment among themselves based on attendance and production per person. Average individual income from the Cooperative is now 2000MF a month ($4).

In addition to dyeing the women make and sell soap. With their "social fund" they buy nivaquine for their children. (Family health care is predominantly the woman's responsibility in the region). There is for the time being very little interest in health education of functional literacy - they do not find the latter's lesson plans relevant to their lives.

Future plans include:a small chicken project starting with merely ten chickens, a number Mme Thiam feels the women can handle themselves.

- a garden
- a communal millet mill
- construction of a permanent cooperative building
- sending a coop member to The Gambia Womens Dyeing Cooperative for training in accounting and dyeing techniques (grant from The Quakers)

<u>What then are the main principles of the Markala Cooperatives Success?</u>

1. A dynamic leader native to the region, trusted, committed, understanding. Forceful yet not overbearing.
2. A group of persons seeking an income and willing to work with very few means.
3. A long period of group discussions to select a project.
4. One-time grants financing.
5. One new technique with traditional technique (soap)
6. Participants organizing their time around home responsibilities based on traditional labor rotation.
7. A marketing outlet established.
8. Income used for project reinvestment and health aid.
9. Addition of further project on very small scale.
10. A reasonable supply of materials on hand.

Most of these principles are basic to any successful cooperative activity. What is especially applicable to the target areas of this report is the constant re-inforcement of group cohesivity and the utilization and expansion of a traditionally secondary income producing activity - dyeing.

Recommendations for cooperatives in the Fifth Region by AID staff (Owens, Nevin, Crawford) and others have been strong. Cooperatives are envisaged as organized around agricultural production and marketing. Given the control of cereals marketing by the Malian government the organization of such cooperatives may well be problematic from the start. Given also the reluctance of farmers to participate due to the disastrous cooperative farming movement launched in the 1960's, special attention would have to be paid to winning farmers' support - something Op Mils extension agents are not trained or oriented to do yet. In addition, and most importantly, cooperatives are foreign to the cultural milieu, cooperative activity being organized around the family unit, and not separate age-grades or groupings of adult men or women, for agriculture.

Recommendation:- that cooperative activities be organized around activities already "cooperative" in character -

- chicken raising
- fruit tree production
- weaving and dyeing
- food processing, soap and oils, cereals

- that cooperatives organized for agricultural production and marketing be organized to include all the family members if cooperatives are for communal fields.

- That cooperatives organized for agricultural production and marketing be organized to include youth, male and female, and women for individually worked fields, i.e. Womens.'

Justification

Cooperatives that benefit only one sector of the population (see agricultural production and revenue disposal) will only serve to widen the gap between the productivty of the assisted sector and the non-assisted sector/s.

Once the cooperative activities organized around traditionally used means of production begin to actualize themselves, the persons involved will have gained a required degree of confidence which they can exploit in Market Associations for Farmers.

The CAC

The CAC is the re-organized governmental organization responsible for the management of Cooperatives in Mali. Their methods are very much based

on the above principles, and in the Fifth Region are starting to show a remarkable degree of success, despite CAC's chronic financial woes. The change in orientation within the last few years of the CAC is almost 360 degrees. CAC personnel constantly reiterate their motto - Flexibility. Most of their programs are implemented at the Secteur du Base level reaching very rural villages. Their field staff have a great deal of levrage, as compared to other rural services, in identifying local projects, funding them and helping villagers implement them. Cooperatives are grouped around villagers of 20 to a 100 persons. Officially and legally all cooperatives in Mali must be sanctionned by the CAC which is trying to make every effort possible not to have this legality intimidate potential cooperative members. There are 3 CACs (Gao, Mopti and Bamako) with funds, though small, and trained women cooperation agents (one each at each CAC cited) with programs aimed at womens collective activities mostly food processing.

Source of detailed Markala Coop information is American Friends Field Service Committee, Bureau for Women and Development Dakar.

Appendix E

Field Comparison between Reported Diseases and Injuries and Observed - Dourou Arrondissement

Source: Medical Report 10 February, 1976 by doctoral candidate Riitta K. Eskelinen, social anthropologist Dourou, Mali.

Figures for Dourou Medical Post Cases treated	%
1. Diarrhea	17%
2. Conjunctivitus	16%
3. Malaria	15%
4. Bronchitis	10%
5. Accident	10%
6. Undetermined illness	7%
7. Otitis	6%
8. Wounds and sores	6%
9. Rheumatism	5%
10. Skin infection	4%
11. Syphilis	2%
12. Gonorrhea	1%
13. Schistosomiasis	1%
	100%

Observed Rate Diseases & Inuries in Dourou	% *
1. Eye Infection	34%
2. Fever or Fever & headache	14%
3. Injury	11%
4. Skin sores or infection or Phagic ulcer	10%
5. Ear infection or earache & feber	8%
6. Headache	7%
7. Diarrhea or fever & diarrhea	5%
8. Cough	2%
9. Toothache	2%
10. Misc.	7%
	100%

*The researcher is a trained nurse. Typically foreigners living in African villagers are besieged with requests for medical treatment and medicines.

Appendix F - Questions asked during Interviews French, and with Dogon Interpretation

Étude du Milieu
Femmes & Jeunes

Temps dépensés sur corvées - Femmes

Preparation d'alimentation	___heures par jours	___jour par semaine
Collection condiments du brousse pour sauce	___	___
Puiser & amener l'eau - hivernage	___	___
- saison seche	___	___
Reparation produits pour vente au marché	___	___
Aller/retour au marché à pied	___	___
" " " champs " "	___	___
" " " " & marche avec charrette	___	___

SANTÉ

La plupart des femmes accouchent: ___chez elles avec sage femme tradtionelle
___au maternite " " " d'etat

La plupart des femmes son enceinte ___fois pendant leur vie, donc avec moyenne de___enfants vivant apres l'age 4 ans.

L'epidemie rougeole est ___plus grave que normale cet année
___la même que l'an derniere

Les garcons sont circoncire normalement a l'age de ___ans
" filles " " " " " " ___ans

Les trois plus grave maladies chez les enfants sont 1_____
2_____
3_____

A votre avis la priorité medicale pour femmes & jeunes est_____

AGRICULTURE

Les paysannes ont elles du cheptel? ___oui ___non laquelle_____(poulets et
" " " " des petit champs a elles ___oui ___non ___un peu
si oui, qui leur confie " " " ___mari ___sa famille ___autre?_____

Se vente des produits agricoles, le profit reviens ___a elle ___mari ___les deux
" " " " non-agricoles " " " ___a elle ___mari ___les deux

Temps de travail total fourni par la collectivitépour l'agriculture:

Hommes..... ____%
Femmes..... ____%
Jeunes..... ____%
total = 100%

FAMILIAL

le chef du famille est present au foyer ___toute l'annee ___hivernage/par saison
La femme vie ___avec famille du mari ___avec sa famille natale _____autre
Le marriage est contractée ___entre 2 familles ___entre 2 individus
___pas contracté Comment?_____
Avec la divorce ou mort du mari qui est responsable pour les enfants?_____
Les femmes seront elles interesse au formation Economie Familial? _____

EDUCATION

Les	___Hommes desire	l'alphabetization	fonctionalle	___pas d'interet
	___Femmes "	"	"	___" "
	___Jeunes "	"	"	___" "

Dans langue ___Dogon ___Peuhl ___Francais ___autre langue

L'étude sera analyser pour developer un projet developpement communautaire dans la cercle. Nous invitons vos conseils ou critiques au verso.

Mme Skapa-Spicer
Mopti

Appendix G - Survey on Agriculture, Family Care and Secondary Income Producing Activities: Decision-Making and Participation

Enquête Relative au Projet de Developpement Communautaire

Integré à l'Operation Mils - Mopti

Avant-propos

Cette enquête a pour object l'élaboration du dossier d'un projet de Developpement Communautaire dans les cercles de Bankass et Koro.

Nous vous prions donc de bien vouloir nous aider en remplissant les tableaux ci-joints suivant la legende indiqueé ci-dessous.

Les resultats de l'enguête, aprés analyse seront soumis aux responsables de l'US-AID et de l'operation Mils-Mopti.

En conséquence, tous les conseils et suggestions seront les bienvenus; car ut tel projet exige la participation effective des populations concernées.

D'avance nous vous remercions pour votre participation désinteressée.

SVP - Retournez le questionnaire rempli à l'agent de l'Operation sur place.

Mme Skapa-Spicer
Operation Mils-Mopti

D = Décision, comment, quand et quoi faire. Il s'agit du pouvoir de decider de faire une activite donnée.
P = Participation active après décision.

M = Mari. Le mari seul déoide our participe dans l'activité.
Mf = Le mari decide ou participe dans l'activité avec la contribution partialle de (ou de ses) femmes
MF = Mari et Femme/s decident ou participent dans l'activité egalment.
F = Femme/s decide/nt ou participe/nt seule/s dans l'activité.
mF = Femme/s decide/nt our participe/nt seule/s dans l'activité avec la contribution partialle du mari.
J = Jeunes

No.1 Exemple:

Activités	Decision de l'activite	Participation dans l'activite	Observations
Récolte.....	M	MFJ	

veut dire que le mari prend seul la décision de recolter mais le mari, les femmes et les jeunes participent pleinement à la récolte.

No.2 Exemple:

Education des enfants.....	Mf	MF	

veut dire que le mari decide comment éduquer ou elever ses enfants en collaboration avec la femme mais tous les deux participent dans l'education des enfants.

No. 3 Exemple:

Scolarisation des enfants..	MF	mF	

veut dire que le mari et la femme decident d'envoyer les enfants à l'école mais la femme s'occupe, en collaboration avec le mari de leur alimentation et de leur progrés à l'ecole etc...

Page 2

Pouvoir de décision ou de Participation de l'homme et de la Femme dans L'agriculture

ACTIVITES	Decision de l'activité	Participation dans l'activité	Observations
I - Exploitation Familiale:			
Choix des semences.....			
Préparation du sol.....			
Semis.....			
Entretiens culturaux.....			
Recolte.....			
Battage.....			
Transport du champ au village.....			
" du village aux marchés.....			
Prestation du travail des femmes & Jeunes			
Utilisation des techniques culturales modernes.....			
Participation de la collectivité.....			
Octroi du crédit agricole.....			
Petit commerce.....			
Vente production céréalière.....			
" " cultures de rente (arachide, coton, etc.)....			
Répartition des revenus:			
-production cerealière.....			
-production cultures de rente.. ..			
Epargne.....			
II Petits champs des Femmes:			
Choix des semences.....			
Labour.....			
Transport du champ au foyer.....			
Transport du foyer aux marchés.....			
Prestation du travail des femmes et des jeunes.....			
Utilisation des techniques culturales modernes.....			
Octroi du crédit agricole.....			
Travail en groupe des femmes.....			
Vente des produits.....			
Répartition du revenu.....			
Utilisation des produits pour l'alimentation.....			
Epargne.....			
III Menage Familial:			
Santé de la famille.....			
Achat médicaments.....			
Alimentation - nutrition.....			
Nombre d'enfants.....			
Education des enfants.....			
Scolarisation des enfants.....			
Frais de scolarisation.....			
Formation épargne familiale.....			

Vulgarisation Agricole

Les femmes reçoivent-elles les conseils de l'encadrement ___oui ___non ___un peu

Est-ce-qu'elles ont acces aux techniques culturales modernes ___oui ___non ___un peu

Est-ce-qu'elles voudraient recevoir les conseils de l'encadrement?

oui non un peu

Autres activités rurales créant des revenus

ACTIVITES	Decision	Participation	Observation
Tissage - production			
vente			
Dépense des revenus			
Tannage - production			
vente			
dépense des revenus			
Forge - production			
vente			
dépense des revenus			
Teinture- production			
vente			
dépense des revenus			
Vannerie - production			
vente			
dépense des revenus			
Savon - production			
vente			
dépense des revenus			
Petite volaille-production			
vente			
dépense des revenus			
Beurre de Karité - production			
vente			
dépense des revenus			
Huile d'arachide - production			
vente			
dépense des revenus			
Pâte d'arachides - production			
vente			
dépense des revenus			
Cultures potagères - production			
vente			
dépense des revenus			
Fruits domestiques - production			
vente			
dépense des revenus			
Cueillettes - production			
vente			
dépense des revenus			
Dolo-bière - production			
vente			
dépense des revenus			
Autres - production			
vente			
dépense des revenus			

Appendix G - Methodology of Surveys and Interviews

A mix of three approaches was used to provide understanding of the roles of the household unit in rural development:

1. Observation
2. Discussion Groups
3. Standardized Questionnaire for literates
4. Interviews

The returns on #3 were 47 questionnaires. Raw data was calculated on a percentile for each question separately, due to variations in the N sample per question (some were partially filled, a few illegible).

Since data gathering, pen and paper in hand is, by the conservative nature of the people surveyed perceived with some suspicion, every attempt possible was made to build up confidence in contact persons and establish rapport. After a degree of confidence was established, I proceeded totake written notes of conversations, consulting my questions as in Appendix F, or #4 above. Questions were translated with the aid of a Dogon person whom the interviewee trusted.

Distribution of #3 and gathering information from #4 was: Op Mils encadreurs, medical staff - PMIs, maternity matrons and locally trained matrons, medecin chefs, Catholic Mission animation personnel both French and Malian, the CAC (Cooperation), administrative authorities - though with anticipated poor returns, traders, members of the local chapters of the National Union of Women, patients coming for treatment at dispensaries, farmers, friends etc.

Every attempt possible was made in the course of investigations to not only ascertain who does what activity, but who decides who is going to do the activity, these dual functions being of critical importance to program design. The assumption by planners that increasing a head of household's income benefits all household members, at least in the area investigated is not valid. An adequate conception of rural development must consider that rural farm families - men, women and children -- do not experience rural change in a uniform manner. Income savings are controlled by the head of household-predominately from the sale of subsistence and cash crops. This same person decides on the use of modern agricultural techniques& obtains agricultural credit - both requiring savings. The amount of savings depends upon size of landholding, weather, and most importantly, the labor input of wives and children as well as the husband in the communally worked fields.

On the other hand in the small women's plots, the women control savings income, after the major portion of the crops is used for food. The data suggest that agricultural extension services should be extended to both communal fields and individual fields in order for the persons working the land to experience rural development equitably.

Appendix H Community Development Agent Guides for Study of Milieu

/)/OTE EXPLICATIVE SUR L'ETUDE DU MILIEU

La connaissance d'un village ne se fait pas en un seul jour mais progressivement. L'agent qui vient d'arriver dans un village ne peut commencer tout de suite la tâche qui lui est confiée sans au préalable étudier le milieu et connaitre les aspirations de la population.

Comment se fait cette connaissance ?

- ne pas s'enfermer dans sa case et attendre que les paysans viennent vers vous, car vous attendrez infiniment.

- après les présentations, c'est à vous d'aller vers les gens et causer avec eux.

- vous cherchez à établir une certaine confiance entre vous et les habitants sans pour autant donner l'impression que vous venez pour une enquête.

- éviter dès les premiers contacts de poser des questions mais observer leur vie attentivement. Vous pouvez le faire peut-être auprès du chef mais discrètement.

- cherchez la collaboration de tous les agents travaillant dans la région (infirmiers, ADC, enseignants etc...).

- au fur et à mesure que vous vous intégrez dans le village, cherchez à connaitre de votre manière le mode de vie des villageois.

- au début, comme je vous l'ai dit plus haut, vous devez prendre contact avec la population et vous faire connaitre par tout le monde. Expliquez chaque fois que c'est nécessaire sans vous lasser le pourquoi de votre présence parmi eux et les tâches qui vous sont confiées.

- afin de faciliter vous même le travail, vous devez tenir obligatoirement un cahier dans lequel vous inscrirez tous les renseignements obtenus avec les dates et lieux au retour de chaque visite.

- quand vous possédez une meilleure connaissance du village et de la mentalité des gens, vous pourrez en toute aisance établir un projet d'action et discuter avec les villageois eux-mêmes.

CONNAISSANCE DU VILLAGE

Vivre dans le village et observer la manière de vivre des villageois. Ou résider dans le village où vous êtes affecté, vivre avec les villageois pour mieux comprendre leurs problèmes, pour avoir leur confiance.

La cannaissance du village porte sur plusieurs points ; le nom, l'emplacement, Les autorités locales traditionnelles. Les vieux notables et les responsables influentes les leaders du village.

L'accès du village est-il facile ?

La taille du village (nombre d'habitants, de quartiers).

- le village est-il ouvert au progrès (village réceptif) ou village dur à pénétrer ?

- le chef est-il dynamique, est-il aimé dans levillage ?

- existe-t-il une bonne entente dans le village ?

- quelle est la situation dans le village ? Quelles sont les difficultés que vous rencontrez ?

- pour une connaissance meilleure du village, observer attentivement l'attitude des villageois avant de poser des questions.

Commencer par poser beaucoup de questions donne l'impression d'un espionnage et les gens se méfient ou contournent la réponse des questions posées.

- observation sur le travail familial, sur le travail collectif, sur l'organisation, sur la répartition du travail dans les familles, dans le village,

- quelles sont les principales occupations selon les différentes saisons ?

- où se fait l'approvisionnement en eau (rivière, marigot, puits) ?

- quels sont les jours de marché ? (Voir les produits alimentaires disponibles - moment d'abondance ou de pénurie)

- quel est l'état sanitaire ? pharmacopé utilisée pour les différentes maladies.

- quelles sont les ressources du village ?

- cultures vivrières - industrielles - nouvelles cultures introduite-

- élevage 7 pêche ?

- artisanat (vannerie, poterie, forges, fabrication de bois, filage etc...).

- Commerce et autres sources de revenus.

.../...

MILIEU HUMAIN

- quel est le groupe ethnique des villageois ? Y a t-il plusieurs ?

- quelle est la langue parlée - la ou les réligions pratiquées ?

- l'héritage vient de quel côté paternel ou maternel système matriarcal ou patriarcal ?

- le champ familial appartient-il à l'homme ou à la femme ?

- quelles sont les personnes qui travaillent avec l'homme dans son champ ? des membres de la famille ? des manoeuvres salariés ? groupements en association de culture ? quelle part de travail la femme a dans le champ de l'homme ?

- quelles quantités de produits sont utilisées pour nourrir la famille et pour commercialiser ?

- qui s'occupe de la vente de ces produits

- à qui revient l'argent ?

- la femme a-t-elle un champ pour elle ? qu'est-ce qu'elle y cultive ?

- qui travaille dans son champ ?

- les produits sont utilisés à quelle fin consommation ou vente ?

- qu'est-ce que la femme vend au marché ? les produits de son champ ? ceux de son mari ? les produits qu'elle ramasse ou fabrique ou prépare

- essayer de calculer à peu près combien d'argent gagne un chef de famille ou une mère de famille ? (ceci est possible quand vous êtes bien liée au village)

- y a-t-il des champs collectifs au niveau des femmes, des hommes ?

- comment on y travaille ? qu'est-ce qu'on y cultive ?

- les produits du champ collectif sont distribués, vendus ?

- comment utilise-t-on l'argent ?

- quelle est la place des jeunes dans le village ? comment sont-ils organisés ? y en a-t-il beaucoup de scolarisés ? l'exode rural existe-il ?
  Pourquoi ?

.../...

ORGANISATION ADMINISTRATIVE

Quelles sont les autorités administratives du village ?

Quels sont les projets et quel soutien vous apportent les autorités administratives ?

Quels sont les services administratifs (écoles, dispensaires etc..

La fréquentation de ces services est-elle bonne ou mauvaise ?

Pourquoi ?

RECENSEMENT

Après la connaissance du village intervient le recensement des besoins du village - exemple : améliorer la production - organiser la commercialisation - augmenter les revenus, améliorer la santé etc....

Notez les besoins en les analysant et inviter les villageois à exprimer les besoins pressants. Il y a deux sortes de besoins, les besoins ressentis et les besoins prioritaires.

Ne pas se précipiter tout de suite dans de petites activités (couture, tricot) sans avoir analysé la situation globale pour les voir les besoins profonds.

//- FICHE D'ENQUETE : N° ..... Région.....

Cercle.....

Ville.....

Quartier.....

Date de l'enquête.....

.....

NOM DE L'ENQUETEUR : .....

1°/ IDENTIFICATION DE LA FAMILLE :

Nom et Prénom du Chef de Famille.....

Adresse de la famille .....

Occupation du Chef de Famille .....

II°/COMPOSITION DE LA FAMILLE : (Chef de famille inclus)

Groupe d'âge	Hommes+Femmes Garçons + Filles	Scolarisés	Occupations Infirmités
1 à 7 ans			
8 à 15 ans			
16 et X			

Nombre total de personnes vivant dans la famille.....

Observations complémentaires sur la famille.....

.....

.....

.....

.....

.....

III°/ CONDITIONS DE VIE :

HABITAT

Nombre de case (pièces).....

Matériaux de construction.....

Eau de consommation.....

Origine.....

HYGIENE :

Eaux usées comment sont elles évacuées.....

ORDURES :

Lieu de dépôt dans la concession.....
Public (à l'extérieur).....

Comment sont elles détruites.....

Avez- vous un WC dans la concession (type).....

Etat de propreté de la maison-propre - sale....

Jardin potager _ Oui - Non

Légumes cultivés (nature).....

.....

.....

ELEVAGE :

Basse - cour

Bétail
Utilisation des produits lait-oeufs-poulets

EQUIPEMENT PRODUCTIF :

Activité productive principale :

Exemple : si

Cultivateur, indiquer les produits cultivés.....

.....

.....

Quels sont les produits que l'on vend : .....

.....

ACTIVITE PRODUCTIVE SECONDAIRE /:

Artisanat.....

Petit Commerce.....

Autre.....

EQUIPEMENT & OUTILS :

Moyens de transports :

Bicyclette-Mobylette-Ane-Cheval-Charrette-Pirogue.

QUESTIONS SOCIALES (Sanitaire -Educatives).

Depuis le dernier hivernage, combien de personnes dans la famille sont allées au dispensaire.....

Pourquoi.....

Combien d'enfants sont décédés dans la famille.....

A quel âge.....

Cause du décès.....

.....

Combien d'enfants vont à l'école fondamentale.....

Garçons.....Filles.....

À la Médersa.....Garçons.....Filles.....

À l'école Coranique..... " ..... " .....

Ceux qui ne vont pas à l'école? ..... " .....

Pourquoi.....

.....

.....

Combien d'enfants ont été renvoyés de l'école.....

A quel âge.....

Travaillent-ils avec vous au village ?.....

ailleurs?.....

Quelles difficultés rencontrez-vous actuellement.....

.....

Observations de l'enquêteur :.....

.....

.....

.....

.....

SIGNATURE : DATE :

ENQUETE DE BASE

Datedde l'enquête
.....
.....

Nom de l'enquêteur : .....
.....
.....

Nom du village .....
Nombre de quartiers.....
Nombre d'habitants .....
Materiaux de constructions en dur .....
Banco .....
Autres .....

Etat de salubrité du village .....
.....
Nom du chef de village ////.....
Elu ou désigné ..... quelle date .....
Occupation du chef de village .....
.....
Conseillers du village
Nombre .....
Lieu de réunion du conseil de village .....
.....
Fréquence des réunions .....
Sujets traités au cours de ces réunions .....
.....
.....
Quels sont les métiers exercés par les habitants du village
.....
Quelle est la source principale de l'eau de consommation dans la village .....
Problèmes sociaux du village (importance):
Cécite .....
Mendicité .....
Délinquance .....

Ecole Fondamentale Publique : Nombre d'élèves .....
Filles .....
Garçons .....

Ecole Fondamentale Privée : Nombre d'élèves .....
Filles .....
Garçons .....

Y a t - il des écoles coraniques : ..... Nombre .....

Y a t - il des Centres d'Alphabétisation .....

Y a t - il des mosquéss .....

Existe t - il un dispensaire .....

Quelles sont la moyenne quotidienne des maladies traitées : .....

.....

Quelles sont les maladies les plus fréquentes .....

.....

Existe t - il une maternité .....

Existe t - il une pharmacie /.....

Y a t - il un bureau de l'Union Locale des Femmes .....

Y a t - il une garderie d'Enfants .....Nombre d'Enfants .....

Y a t - il une coopérative de consommation .....

Y a t - il une coopérative de production .....

Y a t - il des marchés ..... Combien .....

Quels sont les jours de marché .....

Quels sont les produits alimentaires locaux .....

.....

.....

.....

Y a t - il un Centre de Jeunesse et des terrains de sports .....

.....

Existe t - il des the Clubs .....

Quels sont les autres loisirs (troupe théâtrales, foot - ball, folklore) .....

Quels sont les services Publics qui existent dans le village : .....

.....

.....

.....

Parmi les services publics qui font défaut .....

.....

.....

Lesquels sont les plus demandés .....

.....

.....

(3ème Page)

à la Medersa .....Garçons ..... Filles .....

à l'école Coranique ..... -"- ..... -"- .....

Ceux qui ne vont pas à l'école ..... -"- ..... -"- .....

Pourquoi .....

.....

.....

Combien d'enfants ont été renvoyés de l'école .....

A quel âge .....

Travaillent - ils avec vous au village ? .....

aillcurs ?.....

Quelles difficultés rencontrez - vous actuellement .....

.....

Observations de l'enquêteur / .....

.....

.....

.....

.....

SIGNATURE :

DATE :

20. References and Documentation

1. Le Developpement Communautaire du Mali, Secretariat d'Etat aux Affaires Sociales, Bamako August 1970.

2. A Seven Country Survey on the Roles of Women in Rural Development Prepared for AID under contract # AID/CM/ta-C-73-41 December 1974 by Development Alternatives Inc. Washington DC.

3. Cercle de Bandiagara, Animation Rurale Communautaire, Rapport d'Activités 1976, December 1976. Available from Catholic Mission.

4. Note sur Le Developpement Communautaire, Operation Riz, Segou. Mlle H.K. 1972.

5. L'Agriculture au Mali Tome II, Situation Actuelle, Perspectives Service de l'Agriculture, Ministere de la Production. About 1973.

6. Owens, Edgar and Shaw, Robert Development Reconsidered D.C. Heath, London, Toronto, 1972.

7. Crawford, Eric W. Field Report "Rural Development in the Fifth Region-Operation Mils, July 27, 1975". Aid/Mali.

8. Navin, Robert "A Draft of a Scope of Work to describe the Services of a Rural Development Technician who will work within the Structure of Operation Mils, Mopti". July 4, 1975 for AID/Mali.

9. Owens, Edgar "Breif Reflections on a Quick Trip to Mali" October 3, 1975. Memo to AID/Mali.

10. Dinnerstein, Dr. Myra and Kathleen Cloud "Report of a Fact-Finding Trip to Niger, Mali, Senegal and Upper Volta" July 1976 for AID/CID.

11. FAO Fact-Finding with Rural People prepared by Hsin-Pao Yang, 1955 and 1971, FAO, Rome. Practical useful advice for fact finding with non-literates.

12. Report on Conference on Women in Development October 28-31, 1975. Washington D.C. Dept of State, AID 1975.

13. Statistique de la Population Operation Mils Mopti, 1972-73.

14. Depreay, M. Methodologie de l'Animation Rurale et Developpement Communautaire, undated.

15. Diarra, Fatoumata A. Les Femmes et le Developpement en Afrique, Report on Conference, November 1976, Niamey, Niger. IDEP, Dakaar.

16. Johnson, Jerry J. Market Gardening on the Dogon Plateau - Action Culture Maraichere - An Analysis, 3 February 1977 for AID/Mali.

17. Eskelinen, Riitta K. Field Report Socio-Economic 10 October 1976 for Dogon Cereals Project and AID/Mali.

18. ibid. Field Report - Health, March 1977

19. ibid. Field Report - Marketing Systems, April 1977

20. Operation Riz Segou Rapport de Synthèse, Campagnes 1972-74, Ministère de la Production, Direction Agriculture, Mali. by Sambala Diawara, Director.

21. La Formation de la Femme Rurale au Mali Rapport d'u e Reunion de Travail des Responsables des Activities de Formation et d'Animation Feminine en Milieu Rural, tenue au CAR du Koni, 7-9 Janvier 1975, project PNUD/BIT Mali 72/006.

22. Compte Rendu du Seminaire sur le Perfectionnement des Jeunes Ruraux, organisé par la FAO, 7-25 August 1967, Copenhagen.

23. Enfance, Jeunesse et Plans de Developpement Projet de Synthèse des Etudes Nationales, Lome Conference May 1972, UNICEF Central and West Africa Bureau. Report has limited distribution but a wealth of good documentation.

24. CID, Executive Office Utah State University A Proposal for: The Integration of Women in African Development, May 1975.

25. Ministere de la Sante Publique et des Affaires Sociales, Centre National de Formation pour le Developpement Communautaire "Rapport de Stage Effectue au Secteur de Developpement Rural (SDR) de Koro, Operation Mils du 26 Juin au 5 aout 1976.

26. Service Quaker Dakar. "Mali Trip Report 18 February to 12 March 1977" by Susan Caughman and Gerry Goodrich, American Friends Service Committee, Dakar.

29. Pala, Achola O. "African Women in Rural Development: Research Priorities and Trends," Institute for Development Studies, University of Nairobi and Overseas Liaison Committee OLC Paper No. 12, December 1976, 35 pages. American Council on Education.

21. Sources of Audio-visual aids

"Donner la Vie" series 1 through 4, colored charts for animation of literate and non-literate groups:

Office National du Promotion Humaine
BP 1685
Bouake, Ivory Coast
or
CESAO
BP 305
Bobo-Diallassou, Upper Volta

Highly recommended:
Famille et Développement is a quarterly magazine edited in Dakar. Sometimes found in Bamako it is well worth ordering in bulk for CD agents and CD Centers. It concentrates on community development in Francophone areas, is readable, lively and geared to the specialist and lay reader both. A cross between Ladies Home Journal and Ms.

Available from: BP 6489 Bamako sometimes and on subscription:

Famille et Developpement
BP 518
Dakar, Sengal for 750CFA a year and special rates for bulk orders.

22. Suggested resources for Peace Corps Volunteers and CD Agents (French)

1. Williams and Jelliffe Mother and Child Health Oxford University Press, London, G.B. (Ely House, Longon W1)

2. Hygiène et Diététique Infantiles GUIGOZ, URSINA International available: 1800 Vevey, R.C. Seine 54 B 1442, Paris.

3. Our Bodies Ourselves by the Boston Womens Collective, Simon and Schuster, New York.

4. Mieux Nourrir nos Enfants avec les Aliments Locaux, Centre de Formation Horticole et Nutritionelle d'Cuando. Available: BP 13, Porto Novo, Dahomey (Benin).

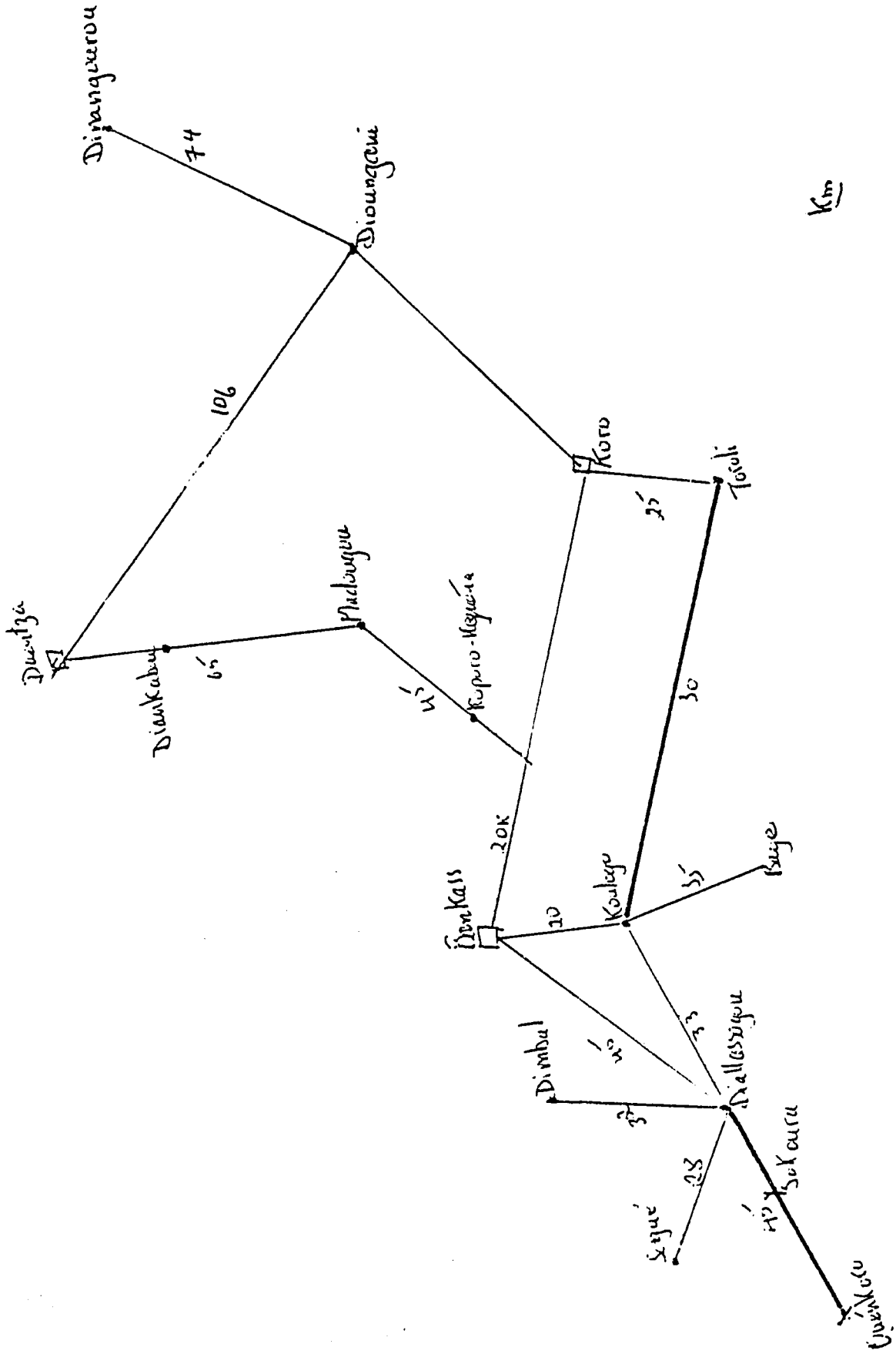
5. Handbook on Child Nutrition in Developing Countries Superintendent of Documents, US Govt Printing Office, Washington DC 20402.

6. l'Encuête au Village Centre Africain de Formation INADES, BP 8008, Abidjan, Ivory Coast. Also have very good nutrition materials.

7. Remote Areas Development Manual Community Development Counselling Service Inc. 1815 N. Fort Myer Drive, Arlington, Va. Intermediate technology well adapted to Sahel.

23. Contact List as of June 1977 - field persons

Oumou Wattara	CAC Mopti is in charge of feminine cooperatives for the 5th Region with several projects getting started. Artisan Coop in Djenne, handmills in Bankass. She will be transferring to Bamako this summer and working out of Bamako CAC.
Père Joseph	and his two French and Swiss Volunteers, Claude Lelouche and Jacob ?. Work out of Bandiagara Catholic Mission in rural animation - dams, wells, pumps, gardens, feminine animation. A couple expected this summer to strengthen this last sector.
Mme Aminata Diawarra	Director of Community Development in Operation Riz since inception. The one who started it all in Mali. A key contact along with her CD Centres directrices. Not a problem they haven't seen in the field and somehow coped with.
Mme Sylla	Until recently the director of the Djoro CD Center, Op Riz, now heads Developpement Communautaire Section at Affaires Sociales Bamako. Charming, experienced. She is working to coordinate education of students at the new School of Community Devel pment in Bamako (German assisted by Fondation Friedrich Ebert-Stiftung) and is key contact to recruit graduates for project.
Bernhard Zimmermann	- recently arrived to head above mentionned school. He and Mme Sylla are aware of projectpersonnel needs, are tentatively targeting Dogon speaking (or those who could learn) students for project. Needs follow up. Centre National du Developpement Communautaire, near Etoile Franco-Arabe and Energie du Mali plant.
Aminata Doumbo	Born 1954, father well known retired fonctionnere in Koro cercle, has DEF and works as secretary at the Cercle. Is interested in working with Comm. Devlp. Needs training.
Toumani Diallo	Director of the CAC, Koro. Very dynamic, a real hustler. Lots of experience with rural projects. Well known, well liked. Knows practically everything there is to know about doing things right, having also done them wrong.
Muktar Moktaba	Chef Secteur for Koro. ok.
Bakary Santura	" " " " Dynamic. Can count on re Dev. Comm.
Mme Torka Togo	Is the President in Koro of the chapter of the National Union of Women, speaks no French. Is a dried fish merchant. Influential and busy.

Mme Matere	Matron for Koro. Husband customs official. Charming and sympathetic. Has trained rural matrons.
Dr. Sambabah	Medecin Chef for Koro circle. Keeps reminding one how many American missions he's talked to. Important to have his support.
Miriam Yara	A native of Koro who hangs around the maternite looking for social work to volunteer for. She speaks Dogon, some Bambara, very little French. Active in local affairs for youth and mothers.
Mlle Traore	Infiemiere D'etat Bankass who pitches in at the unstaffed maternity. Young, single, involved.
Mme Fanta Karambe	President of the Womens Union for Bankass circle. in periodic contact with local chapters. Older lady, keen on day care centers. No french.
	Other Union members: Mme Guido, young speaks French Mme Kamara, middle aged, state nurse.
Mme Aminata B. Zengo	Recently married, active in social work - possible CD agent candiate. Contact through the Union in Bankass. Lives in Baye.
Seydou Diallo	Sangha, Infirmiere d'etat. Very resourceful and dynamic. 6 years experience on both plain and plateau.
Civil Servants	are not listed but special mention should be made of Chef D'Arrondissement M. Sharif Hadarge Diankabou who takes an active interest in youth especially. Active Jeunesse.
Ahmedou Cisse	Bandiagara, Inspecteur d'ecole for English. Informative for education
Chef du Village	Kassa has water year round, vegetable gardens and marketing.
Christophe Sidibe	Dynamic Chef d'arrondissement of Dinangourou.
Chef de Tourou	near Koro, very concerned about health, women, nutrition.

24. Bankass & Koro M. Distances - approximate