APPENDIX 10

Local coordination
Local field staff
low cost assessment techniques.

APPLIED NUTRITION PROGRAM

ECUADOR

MEALS FOR MILLIONS PROGRAM

IMPACTS AND LESSONS LEARNED

July – December
3 weeks in field.
2 months to write it up.

$9,750

27 gov't agent now there.
due to MFM —
before nothing.

Donald A. Swanson
November, 1982

ACKNOWLEDGEMMENTS

ASDELA is pleased to present this report on the Meals for Millions Program in Ecuador. It is an assessment of their program during the period 1967 - 1982, including a description and assessment of their projects, issues, impacts and lessons learned. Research was carried out June - August, 1982.

ASDELA received excellent support from the Meals for Millions (MFM) Staff in Ecuador. We appreciate the encouragement of its Program Director, Sr. Lautaro Andrade. Also very helpful were the field staff Ing. Agrónomo Ider Flores and the nutritionist Isabel Carolina Camba. We are thankful to government officials in the Santa Elena Península for their cooperation, as well as private individuals who provided information.

We are appreciative of the Community Members of Santa Elena Península who were interviewed and in many ways bothered in order to complete this study. The people of Loma Alta, Dos Mangas, Azúcar, San Vicente de Loja, Olón, Mangalralto, Sinchal, Salanguillo, Sitio Nuevo, Valdivia, and Barcelona, all of Santa Elena Península in Guayas Province, Ecuador, were good in cooperation.

The good support of Meals for Millions Headquarters by Louis Ziskind and Richard Redder was welcome as they assisted in thinking out the design and methodology of the study.

ASDELA Staff members César Vélez and María del Carmen Montalvo assisted in preparing and editing this report.

TABLE OF CONTENTS

SUMMARY

The Meals for Millions Program in Ecuador started in 1965 and has had three phases:

Phase One	1965 - 1972	Initial Operations in Guayaquil and Guayas Basin Feeding Program and beginning of Soybean Production
Phase Two	1973 - 1977	Soybean Production and Marketing in Santa Elena Península
Phase Three	1978 - 1982	Applied Nutrition and Rural Integral Development Program with 15 communities in Santa Elena Península direct beneficiaries

MFM/Ecuador evolved slowly from a feeding program to a rural integral development program. In Phase One (1965-1972) the emphasis was on supplemental feeding and working with rural communities to start vegetable and soybean production.

During Phase Two (1973-1977) MFM assisted 10 rural communities to begin soybean production in semi-arid conditions on the Santa Elena Península. A major drought began in 1976 and wiped out the soybean program and ushered in Phase Three.

Phase Three 1978 - present is an Applied Nutrition and Rural Integral Development Program with about 100 farm families in 15 rural communities on the Santa Elena Península along the Pacific Ocean. There are five sub-projects of this program:

- Horticulture Project: Works with 61 farmers in 11 communities to assist in growing vegetables in semi-arid conditions. MFM provides technical assistance and credit rotation for stimulating production. With 105 hectares under production in tomatoes, onions, peppers, cucumbers, melons, and watermelons, MFM is assisting poor farmers to increase yields, production, and incomes.

- Poultry Raising Project: Works with 23 families in 7 communities to raise poultry as alternative to horticulture production. Although recently started, results appear to be favorable with over 20,000 poultry raised in 1982. MFM provides technical assistance and credit.

- Nutrition Education Program: MFM provides nutrition education courses, pre-natal care, post-natal assistance, family planning, height and weight clinical care to 179 women and 190 children in eight rural communities. Program also has helped start three community vegetable gardens in three communities.

- Rural Infrastructure Project: MFM assists communities to start rural infrastructure projects such as community wells and pumps, bakeries, solar stoves, housing and farmers associations. MFM provides credit and technical assistance.

- Small Grants Program/Credit Rotation: With US $12,000, MFM started credit rotation program to support horticulture and poultry raising projects with imputs as well as rural infrastructure projects. Over US $30,000 loaned and returned with this initial line of credit making positive achievements.

Meals for Millions is making significant impact with its US $ 91,000 anual operating cost program, and from Ecuadorean personnel. The research shows increased yields per hectare, better use of pesticides and fertilizers, and farm management. Meals for Millions assists to turn poor rural farmers into progressive modern farmers in a five year period. Through its rural infrastructure program there is increased economic activities to create cottage industries. The principal factors for creating impacts are extension and credit.

The organization has learned by failures and hard lessons to move slowly and quietly. By doing this they have inspired government organizations to begin to provide desperately needed larger infrastructure programs such as dams, sewage programs, water supply systems, schools, health centers, feeder roads, and rural electrification. MFM can expand its operation well and still maintain its high quality and excellence on the Santa Elena Península.

We have made several broad recommendations to continue to improve the program. First, it can begin to have better program planning in order to achieve even better efficiency and effectiveness. Secondly, it can begin to diffuse information indirectly with follow-up through pamphlets, posters, radio broadcasting and general information to a wider audience. Thirdly, it can better its extension, educational, and communication strategies so that they utilize the most modern research and experiences available and so that their program is integrated and coordinated to serve the rural poor. Lastly, it can broaden its approach to rural development to include more activities that center on the family and that help create alternative employment opportunities in an applied nutrition program.

MFM continues to develop and change. It has an amazing ability to learn from the past and let experiences become history. The personnel look backwards to learn but do not get stuck in the tar pits of the past. Rather they are visionary people with profound understanding of poverty. They have this amazing grace to be patient with themselves and the daily rocks that come across their paths. It was refreshing to observe very fine human beings with a deep concern for Ecuador and the plight of poor people. They set an example for

those who want to serve that small is possible and that people know how when given the chance to improve their lives through a well-planned self-help and participatory program.

I. INTRODUCTION

Meals for Millions was founded in 1946 as a voluntary relief agency, with headquarters in Santa Monica, California. In the late 1960's MFM realized that relief feeding was only a stop - gap response to the problems of hunger and malnutrition. MFM, an American voluntary development organization, now emphasizes self-help programs involving technical and material assistance, applied nutrition, community development, and training field workers. In 1977, MFM became the succesor to the American Freedom from Hunger Foundation and now is MFM/FFH.

Its program objectives worldwide are as follows:

1. Strengthen the capabilities of communities in the developing nations to solve their own food and nutrition problems

2. Work with the framework of their existing economy and culture.

3. Give special emphasis to the nutritional needs of infants, children, pregnant and lactating women, and elderly.

4. Advance and perfect the "participatory" or "self-help" approach to achieve lasting development.

MFM stresses the need for integrated plan of development with a "participatory approach." They state that if there is to be impact the communities themselves must be involved to identify their own needs and to recognize that they have it within themselves to improve their own quality of life. Once a community has identified its needs and has decided that it can change - "self-help" - then MFM can provide material and technical assistance effectively. Labor and other resources must come from the community itself through commitment to change the old ways of doing things.

In 1965 MFM began programming in Ecuador. Initially, 1965-1975 their field office was in Guayaquil and with projects in and around the Guayas Basin. In 1976 they moved their headquarters to the Santa Elena Península, two hours from Guayaquil on the Pacific Ocean. While we will describe briefly the earlier period, our assessment will be confined primarily to work in the last five years on the Santa Elena Península.

There are many development and programatic questions that arise when an American private development organization works abroad.

In essence, the questions relate to the following:

- Self-help and Participatory Approach. Has this emphasis been achieved? How? What positive and negative effects? Does it do any good?

- Applied Nutrition Program Approach. Is this approach acceptable? What are its positive and negative ramifications?

- Impact. Is the MFM Program in Ecuador doing any good?

- Methological and technological Components. What techniques are they using that seem to be working well?

We have chosen a "case study" approach for this assessment, doing away with complex methodological designs and social science rhetoric. The premise was that many useful lessons were hidden in the project experiences and that it was useful to dig them out.

The Meals for Millions Program in Ecuador has three phases in its history to date;

1. Phase One 1965 - 1972. Initial Operations in and around Guayaquil and Guayas Basin.

2. Phase Two 1973 - 1977. Soybean Production and Marketing in Santa Elena Península and Guayaquil.

3. Phase Three 1978 - 1982. Applied Nutrition and Rural integral Development in Santa Elena Península.

A. General Description of Program

The MFM program today is a rural integral development program. By that we mean it wants to assist in community development, work in coordinating and promoting government agencies in a specified district or area, and be concerned with income, jobs, and economic development. By providing services, MFM's major concern is better production, reduced mortality rates, better opportunities for rural people, and provision of better services for its people.

The program serves in 15 rural villages in the Santa Elena Península along the Pacific Ocean. There are roughly 48 villages and 700 farm families in rural villages in the Península, so that MFM works in 33% of the villages with around

20% of the families. They collaborate with the most remote and hard pressed villages and families.

There are four areas of concentration: horticulture production, poultry raising, nutrition education, and infrastructure. They are also involved in community organization and development, community irrigation, farmer agricultural committees and cooperatives, and experimental farming in drought areas.

The Santa Elena Península has had a serious drought since 1976. This affects the problems of the Península as well as possible solutions and action plans. The Península is a victim of natural causes and long range solutions must be found in water projects, dams, small industry, use of the sea, and alternative employment opportunities. There are also urgent needs for capital investment.

B. Administrative Approval in Ecuador

Meals for Millions received authorization to work in Ecuador June 6, 1967, in accordance with Decree No. 628, published in the official registry June 8, 1967. It stipulates that MFM is to work to "combat hunger and the poor nutrition of the people." It was to work exclusively with the most needy of the country, specially in food and nutrition distribution programs. The decree reflects a food distribution and relief feeding program. Even though this thinking was in the decree, MFM has evolved to a self-help approach to development.

C. Program Evolution

This program evolved from a strict food distribution and relief feeding program to a rural integral development program. It demonstrates influences from the international development community as well as lessons learned in Ecuador. In the first place, the international development community began to realize that relief feeding programs were merely stop-gap measures and should only be used in extreme cases. It was a band-aid approach to solving more inherent problems in rural development. Secondly, MFM learned in Ecuador that feeding programs gave relief, some growth, but definitely not development. These concerned professionals began to question their basic assumptions for existence.

During this evolution there was a lot of searching for alternative objectives, strategies, and approaches. In retrospect

much time and effort was made looking for alternatives. They bounced around from opportunity to opportunity, searching for a solid program. It was not until they got into soybean production and made the physical move to the Santa Elena Península that there appears some solid programming.

While today the central thrust of programming is rural integral development, MFM/Ecuador is still evolutionary in its approaches and programming. It has learned to adapt to different circumstances and new realities of working in rural areas of Ecuador. It has searched for meaningful answers to the multitude of problems facing the Península. They have not shied away from this challenge, but have rather met the challenges head on.

D. Study Methodology

This assessment was requested by MFM at a time when some new MFM/Ecuador programs are just beginning to take off. It is also a time when international economic situations make money tighter for international aid programs and where yields on investment are considered paramount. International development experts are questioning their conventional wisdoms and are simply not as sure as they once were about their assumptions and validity of approaches. It is thought that the MFM/Ecuador program might offer some answers to the inevitable questions of how best carry out rural integral development.

This assessment determines the lessons that MFM has learned in Ecuador and to share those experiences with other development agencies. Meals for Millions is serious in its desire to learn from this assessment so that it can make changes in its program. It believes that the process of this diagnosis is just as important as the final product. In this sense it is an assessment of its work rather than a full fledged outside evaluation. The case study approach expects to shed light on the roots of implementation problems and how the organization went about resolving whatever situation it faced.

In a "lessons learned" assessment, studied systematically, there is always much room for searching for causes and effects that led to positive and negative factors of project development. The assessment covered the following issues:

1. Project Setting. A description of Santa Elena Península.

2. Project Descriptions. We assessed each project component and element as follows:

   - Project design
   - Major problems encountered and solutions to these problems
   - Project benefits for community and families
   - Assessment of success and failure and lessons learned

3. Administrative Issues

4. Project Planning. Strategies, integration and community participation.

5. Impact and Lessons Learned. The real effect of any program is its progress and impact on the community. We looked into evidence and indicators of impact on families and communities, especially those variables demonstrating economic improvement. An assessment was made of major problems encountered and ways they were attempted to be solved. We assessed principal causes for success and failure and lessons for others. We detected unplanned results, both positive and negative.

6. Positive Factors, Barriers, and Recommendations. A Force Field Analysis was made of positive and negative factors affecting the project. Recommendations emerged from this assessment.

We used a simple participant observation approach, field observations, staff discussions, and participant discussions to get at the research questions. We compared these observations and dicussions with other projects to make assessments.

II. PROJECT SETTING

Meals for Millions works in coastal Ecuador in the Guayas Basin. Since the project area is now Santa Elena Península, we will only discuss this region. At one time, MFM worked in Daule in Guayaquil.

A. Santa Elena Península

1. Location

Santa Elena Península is located in Guayas Province along the Pacific Ocean. An area of 5,440 square kilometers, it is bounded on the north by the Ayambe River, on the east by the Changón and Colonche mountain ranges, on the south by the Estero Salado, and the west by the Pacific Ocean. The Península has rolling hills and long, flat plateaus. It is well known for its limited rain resources, persistant erosion of soil, low population density, and moderate agricultural activities.

The Península's major towns are Santa Elena, La Libertad, Ancón, and Salinas. Salinas has become a major tourist town and weekend beach resort. There are over 48 small towns, 15 of which are project towns.

The Península is similar to Southern California before the water rush in the 1930's. Small isolated towns scatter the Península. Their major concern above all is water - the source of life. A pipeline runs from Guayaquil with potable water, but it serves only the larger towns of Santa Elena, La Libertad, and Salinas. Rural towns rely on water trucks, towns wells, or in some cases individual local wells built by farm families.

The national government is interested and concerned to resolve the water situation. INERHI has built a new dam in San Vicente on the Jativa River that would service about ten rural towns in the Península. Other smaller water reservoirs also have been constructed. They must wait for the six year drought to end to become effective. Meanwhile, small scale farmer families resort to building their own wells 10 - 20 meters deep, and pump with 200 - 300 meter hoses to their agricultural plots.

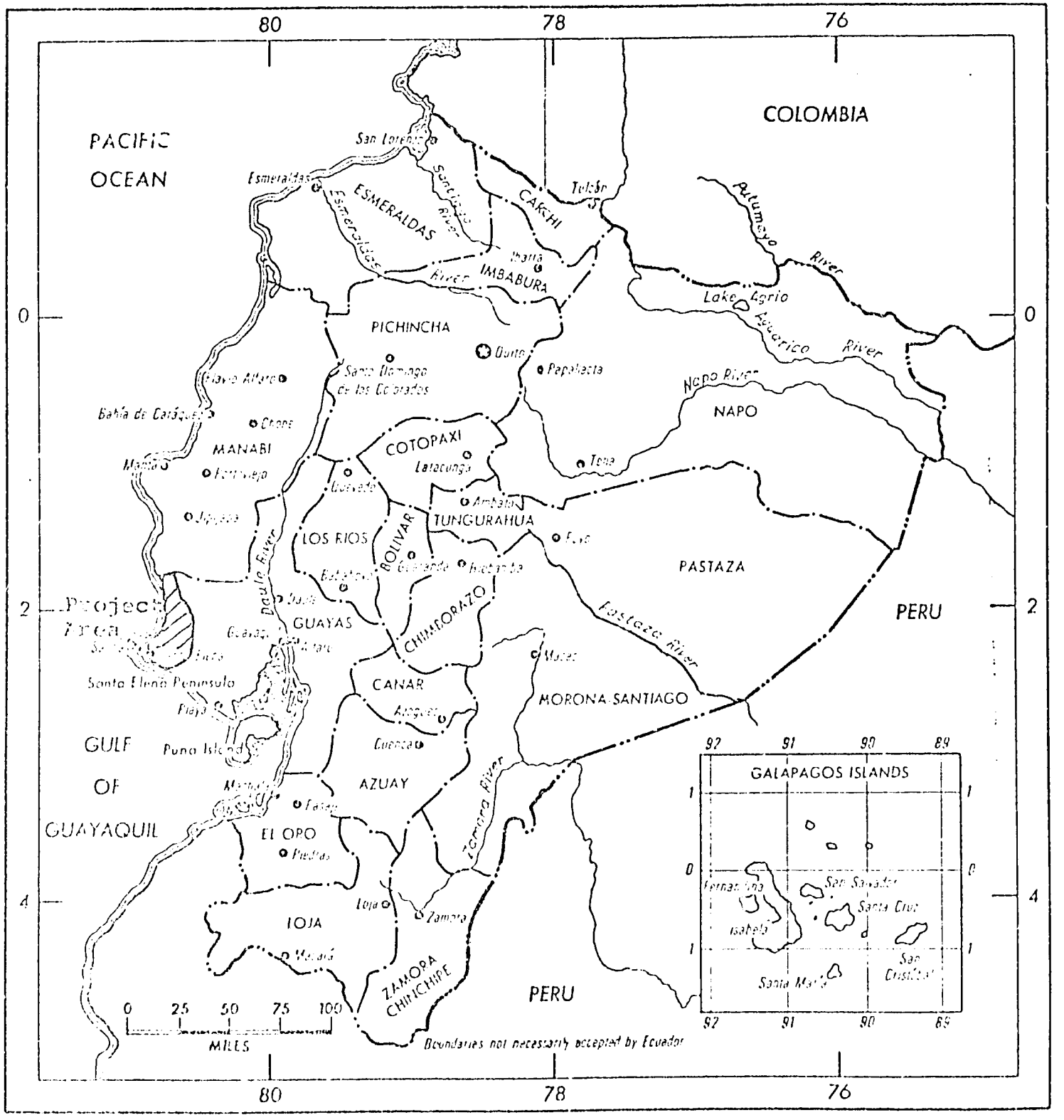
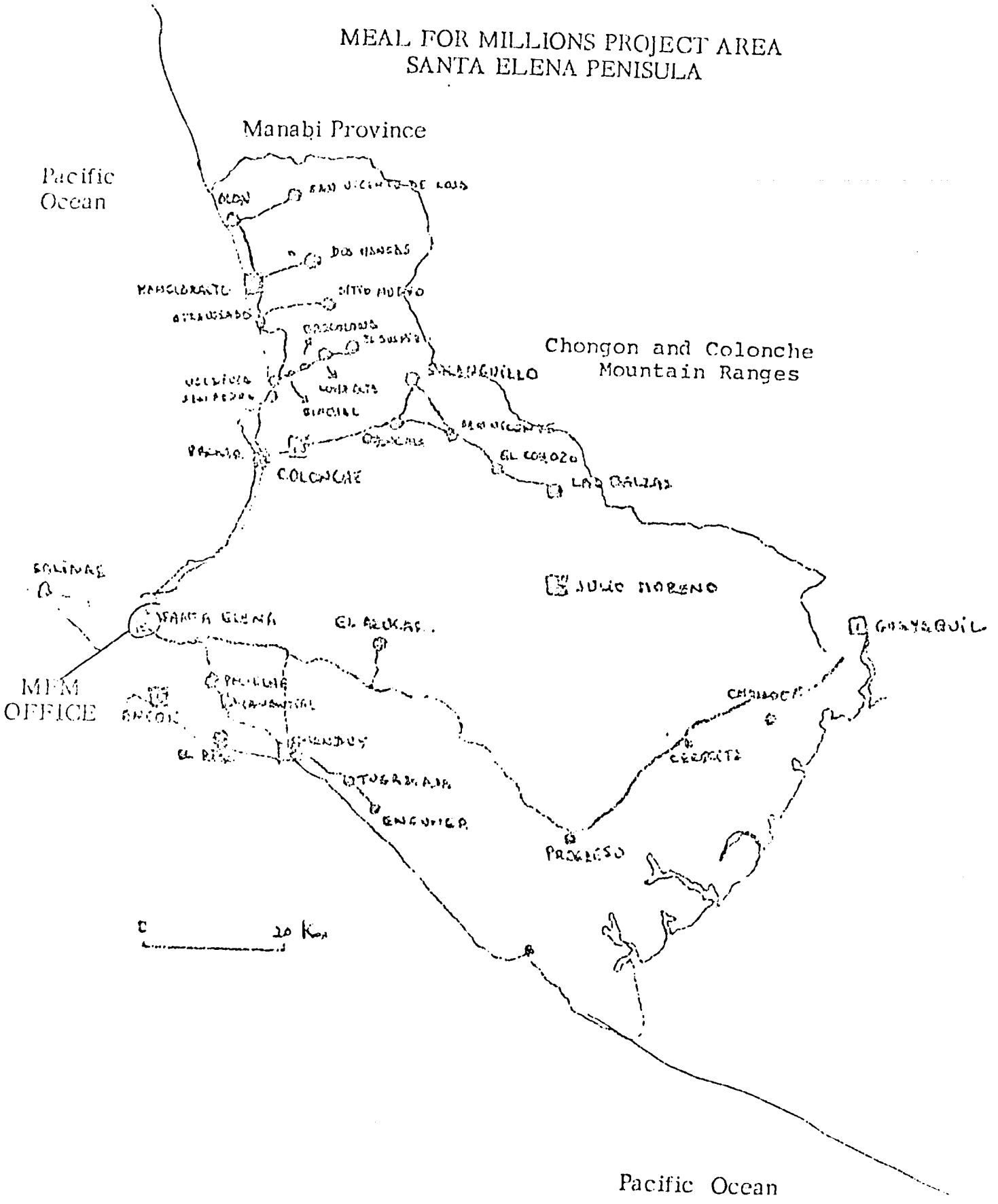


Figure 1. Ecuador

MEAL FOR MILLIONS PROJECT AREA
SANTA ELENA PENISULA



Unlike Sierra farmers or other coastal farmers, Península farmers raise cash crops. There is very little subsistence farming, meaning that they sell their goods on the market and also must purchase other goods for consumption. Almost all the tomatoes, peppers, cucumbers, onions, cabbage, lettuce, carrots, and citrus fruits grown are sold.

3. Supporting Institutions in Region

Other public and private institutions, besides MFM/FFH, work in the Santa Elena Península, as follows:

A. Ministerio de Agricultura, (MAG). (Ministry of Agriculture)

MAG maintains extension programs and forestry reserves. It also coordinates with IERAC (Agrarian Reform) concerning land reform issues. The Forestry Division has a small nursery in Loma Alta for reforestation programs.

B. Banco Nacional de Fomento (National Development Bank)

BNF has been in the Santa Elena península for eight years, providing agricultural credit to farmers, fishermen, and community groups for farm equipment. Unfortunately almost all project farmers are excluded from credit.

C. Instituto Ecuatoriano de Seguridad Social (Social Security Institute)

Since 1969, IESS has established health dispensaries for workers. The newly founded Seguro Social Campesino (Small Farmers Social Security) is part of IESS. MFH/FFH works closely with Seguro Social Campesino in applied nutrition programs.

D. Banco Ecuatoriano de la Vivienda - Junta Nacional de la Vivienda. (Ecuadorian Housing Bank - National Housing Board).

These organizations provide rural housing through an agreement with Cantón Santa Elena. No farmers participate in this program as it is almost exclusively urban.

E. Ministerio de Educación Pública (Ministry of Education)

MOE has primary schools throughout the Península and Literary Centers for Adult Education. Nutrition education programs are held at these rural primary schools.

F. Ministerio de Salud Pública (Ministry of Public Health)

Manglaralto has a Ministry of Health hospital; Colonche a sub-health center; and towns of Santa Elena, La Libertad, and Salinas all have sub-health centers. Facilities are quite good and accesible but service is less than desireable.

G. Empresa Eléctrica Península Santa Elena (Electrical Power Santa Elena Peninsula)

Provides electrical systems for Península and most small towns on the Península. Service generally very good.

H. Comisión de Estudios para el Desarrollo de la Cuenca del rio Guayas (Studies Commission for the Development of Guayas Basin)

CEDEGE conducts studies and experimental programs in the Península. Has conducted some irrigation and dam feasibility studies that assist farmers indirectly.

I. Municipio de Santa Elena (Santa Elena Municipality)

Municipality maintains schools on Península. Services small rural towns with generator plants for electricity.

J. Instituto Ecuatoriano de Obras Sanitarias (IEOS)

(Ecuadorian Institute of Sanitary Constructions)

Provides studies and impulse for water and sewage projects. Not much assistance to small farmers.

K. Instituto Ecuatoriano de Recursos Hidraúlicos (INERHI)

(Ecuadorian Institute of Hydraulic Resources)

Develops major water systems projects such as Proyecto Guangalá and San Vicente Dam Project. Also construct small community dams.

4. Political Divisions

Santa Elena Península has two political divisions in the project areas, as follows:

Colonche	16,140	(1974)
31 towns (recintos)		
Manglaralto	13,668	(1974)
17 towns (recintos)		
TOTAL	29,808	

This represents the rural population of the Santa Elena Cantón, roughly 30,000 people in 1974. The population has remained stable since 1974.

Santa Elena Península has had migration since 1974 and specially since 1976. Rural farm families have fled to larger towns in Santa Elena Península (Santa Elena, La Libertad) and also to Guayaquil. Young people 15-20 years old have gone off to school and a majority never return. Young children stay with their parents until they become teenagers, and then a lot migrate. The principal reason is the drought and lack of jobs.

5. Ecological Conditions

Special mention is made concerning the ecological conditions of Santa Elena Península, as it dominates the socio-economic conditions of the region as well as project efforts. Many years ago the Península was a lush green tropical region with good tropical agriculture and abundant trees of all species. Today it is a barren, dry area with minimal trees or scrubs. In the 1930's there was one serious drought for about five years. This was coupled with the need for wood to fire furnaces of salt producing plants in and around Salinas. In a ten year period Península residents and commercial groups had cut down a sizeable portion of the trees on the Península. This continued into the 1940's and 1950's. Combined with serious drought conditions exponential ecological devastation took place.

B. Development Issues of Santa Elena Península

1. Commerce and Industry

The largest economy industry on the Península is fishing. There is one large fishing industry - INPFCA - that commercializes fishing. In San Pablo, San Pedro, Valdivia, Palmar, and Manglaralto there are small cooperative fishing groups. After local consumption, these fishes are hauled to Guayaquil and distributed to other parts of the country.

A oil refinery operation Anglo-CEPE exists in La Libertad. It once was the center of oil refinery in the country but is now bypassed by the large refinery in Esmeraldas.

A construction boom is taking place all along the 100 kilometer beach front of the Península. Guayaquil families are building weekend cabins and houses in existing seacoast towns as well as creating new coastal resort towns in Punta Blanca and Palmar. This creates many jobs in the Península but about 50% of the construction firms prefer to import workers from Guayaquil and the Sierra. Very few families benefit from this boom.

2. Small Business

A vast majority of Península residents eke out a living through traditional local businesses. These include fishing related businesses, restaurants, small stores, sewing shops, and crafts. It is not a lucrative business but is held by long standing residents of the Península.

3. Employment on the Península

Roughly 50% of Península residents have gone to work for companies and industry in fishing, construction and small business in Santa Elena and La Libertad. The young men for the most part have left for the cities and Guayaquil. Young women mostly work in companies or as domestic servants in Guayaquil. Another 40% engage in self-employment activities on the Península in small stores and crafts as mentioned before. Many of these workers are former farmers who have abandoned their plots temporarily or permanently because of the six year drought.

The remaining 10 percent are small scale farmers who have 1 - 3 hectares on the Península and still attempt to live on the land. A hardy brunch of men, women, and children, they struggle to deal with drought farming.

4. Agriculture and Cattle

About 20 large scale farmers (15 - 100 hectares), 30 medium - scale famers (5 - 15 hectares) and 700 small scale farmers (1 - 5 hectares) farm on the Península. Almost all farmers, regardless of size, have adopted to basic drought related vegetable farming.

This normally includes production of tomatoes, cucumbers, peppers, onions, cabbage, lettuce, carrots, and some corn. In addition, they have citrus trees, melons, water melons, some pineapples, and some beets.

In addition, farmers have horses, cattle, goats, pigs, ducks and chickens. Small scale farmers have recently begun to raise chickens as a cash crop.

Small scale farming is a high risk and low pay off business. Over 50% of the small scale farmers have abandoned their lands looking for more secure and viable jobs. Those remaining are not necessarily the most poor or desperate, but rather willing to take their risks on the land.

An important approach to examining the Santa Elena Península is to identify how its productivity might be enhanced by agriculture, alone or in combination with other activities.

Mosher, in Creating a Progressive Rural Structure, suggested the need for a type of land classification combining an estimate of inherent capacity of each area for agricultural production with an estimate of the immediacy of its potential for agricultural growth. There are three categories:

- Immediate growth potential. Region has good soil, irrigation, improved technology and good market demand.
- Future growth potential. Soil and climate are favorable in region but irrigation, high productive technology, communications, transport systems are lacking. The most urgent need is research or investment in irrigation facilities or roads to convert the region to one of immediate growth potential.

- o Low growth potential. Area is such that farming can never be a highly productive occupation without major technological changes.

The potential for development of the Península falls into a middle range of future growth and low growth potential. To bring one hectare into progressive and long standing farming requires investment in research, infrastructure, and appropriate technology. This requires such essential items as a sustained water supply, drip irrigation, better marketing procedures, and a whole host of other factors.* It also requires a concerted coordinated effort by the government and private sector entities. Farmers would have to be part of a system and feel part of that system rather than be isolated or abandoned.

Meals for Millions is making a considerable contribution to this strategy of having a coordinated effort on the Península. MFM serves as a catalyst in drawing other institutions and ministries into the development scheme of the Santa Elena Península. While its own budget is quite low, it serves and has impact way beyond its direct beneficiary activities. This is done through catalytic activities.

---

* This writer questioned if Santa Elena Península would ever be similar to the Imperial Valley or San Joaquín Valley in California, with similar climate conditions.

Everyone was asking"What do we do next" instead of visualizing down the path what should happen ultimately, then work backward to the present as well as forward from where they are now in developing their plans.

III. APPLIED NUTRITION PROGRAM

Meals for Millions has tried different approaches in its fifteen year effort in Ecuador. It has made a lot of changes but has also learned a lot about development. It has evolved as an institution, like other international private voluntary organizations, with the new trends and lessons learned through the years. Their work in Ecuador is a reflection of lessons learned in practical experiences as well as being influenced and changed as an institution.

It has also developed from a simple and at times innocent view of villages and rural development to a well - organized development institution. Looking back former directors laugh at their incredible innocence and somewhat simplistic view of the development process.

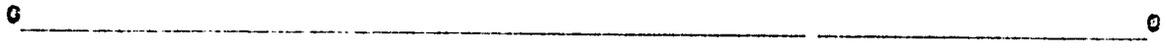
Two concepts underline the MFM applied nutrition program approach: Self-Help or Participatory Approach and the Defined-Area Agricultural Development Approach. Both concepts are elements of the Applied Nutrition Program.

A. Self-Help or Participatory Approach

Meals for Millions maintains that it supports a participatory or self-help approach to rural development. It borders on a now commonly expressed philosophy of rural integral development. That is, the stress is on providing services to rural areas in projects that augment and increase production and income for small scale farmers on the Coast. MFM goes one step beyond this approach by stressing "self-help" and "participatory" involvement by the communities in their own development. Since "self-help" and "participatory" statements are very much in vogue among development specialists today, it is important to define and stipulate the ramifications and implications of such an approach to rural integral development. At one end of a continuum the development specialist provides assistance, services, advice, but is still fairly much removed from the daily toil and vulnerability of the farmer. At the other end of the continuum the small farmer is the center of rural development and makes all major decisions concerning his livelihood. Development specialists are also involved and vulnerable to the daily existence of the small scale farmer.

In its most ideal state, self-help and participatory relationships dictate that the extension agent or development specialist is in a direct relationship with his client. He is vulnerable and responsible for actions taken by the farmer in the betterment of the farmers well-being

Every development organization implicitly or explicity takes a position concerning its vulnerability and responsibility with its clients. This involves basic decisions concerning dependency, free will, freedom to choose, opportunities, and social justice. For some development organizations it is a stand off vertical relationship while with others it is an integrated vulnerable and horizontal relationship with its clients. The graphic below shows the levels along the continuum toward an ideal self-help or participatory strategy of rural integral development.



Development Assistance
Vertical relationship
Project Design by Sponsors

Integration
Vulnerability
Horizontal
Relationship
Project design by
Participants

B. Defined - Area Agricultural Development Approach

Meals for Millions uses what is described in the development literature as a "defined - area development approach." This is a concerted effort to raise the productivity and incomes of farm families in a designated region of the country and to do so rapidly and at a low cost. This approach normally involves an integrated approach including commodity programs, input supply, credit, marketing, transport, and communications, to name a few. It is normally an integral component of material development and not an isolated project. It is an intensive, planned, concerted, forced-pace and sustained effort to increase agricultural productivity and incomes of farm families as rapidly as possible, so they can improve their diets and lives. In many ways it is similiar or even identical to the so-called "rural integral development approach."

An ideal "defined - area" approach uses a coordinated and integrated team of public and private specialists who work together toward a common good of the development of Santa Elena Península. Ideally there would be something like a Santa Elena Development Commission that had representatives of farm

families, business leaders, public sector institutions (INERHI, MAG, IEOS, IESS, Ministry of Health, Ministry of Education, Municipality) and private groups (MFM, CESA, FEPP, Catholic Church.) There would be common goods and objectives and they would normally collaborate together. Normally, a coordinated and integrated approach is more efficient and effective in creating a progressive and self-sustaining rural development program. There is not a complete well-coordinated and integrated approach of rural development or small scale farming on the Península. /Meals for Millions has taken a major role attempting to coordinate and integrate its efforts with others./ It has been unpretentious, generous, giving, and has demonstrated a genuine concern with the poor small scale farmers in the Península. It has also demonstrated time and again its interest in collaborating with all groups in a coordinated effort. Reluctance for cooperation has been the hallmark of other organizations specially those of the government. They beat their drums to a different rhythm.

C. Beginning Work in Ecuador 1965 - 1972

Meals for Millions began work in Ecuador as a feeding program. Its mandate and approval from the Government of Ecuador was to be yet another international private voluntary organization involved with relief feeding. It used its own special formula Multi-Purpose Food (MPF) as well as United States relief food (Food for Peace) donations. There was a direct feeding program for about four years.

They set-up offices in Guayaquil on the Ecuadorian coast. It is the "Principal Port" city of Ecuador and its largest population and commercial center. A lot of the direct feeding program took place right in the poor ghettoes (suburbanos) of Guayaquil.

MFM decided though that it wanted to serve in rural areas. The whole Guayas River Basin and Guayas Province was considered a good place to work. MFM also wanted to get out of direct relief food programs and into community development. Their director, a former Peace Corps Volunteer in Ecuador, believed that MFM could and should get into community development and agricultural production.

This evolution led to some experimental work in agricultural production. They chose Daule, 50 kilometers north of Guayaquil, as a site area. It is a small town of 15,000 and about 30 - 40 rural towns nearby. Most farmers were into rice production. A good majority of those farmers were members of rice cooperatives.

MFM did not want to get into cooperative formation but rather work with existing rice cooperatives with a new product. That was soybeans.

Thus MFM evolved from a relief food program into starting production of soybeans. Why soybeans? First, MFM had some experience starting soybean production in other countries and thought their expertise could be transferred to Ecuador. Second, there was an urge within the organization to try something new and to make a meaningful contribution. Third, the rice farmers diets were not good because they lacked proteins. Fourth, rice production yields were low and prices were not good for small scale farmers in early 1972. Finally, soybean appeared to represent a new and viable product for coastal small farmers. It could be marketed fairly easily and could be a good cash crop.

Soybean production was not high in Ecuador in early 1970's and the yield levels were low.* It is not a difficult crop to produce but more difficult to market. That would represent a major challenge for MFM.

Soybean Production and Marketing, 1973 - 1977

MFM's soybean project ushered in Phase II of MFM's work in Ecuador. It led to a shift from the Daule area and into the Santa Elena Península. It created a transformation in geographical as well as philosophical thinking.

MFM attempted to encourage small scale farmers to produce soybeans as a cash crop. It believed that soybeans would be good nutritionally for the farm families, but even more importantly it could be a cash crop. There would be a new manageable technology that could be handled by small scale farmers.

A strategy was devised that incorporated the production mechanisms for introducing a new crop for small scale farmers. Energetic MFM staff members wrote out project designs, strategies, proposals that included how the soybean project would function.

---

* Soybean production is centered in Quevedo, Babahoyo, and Milagro areas on the Ecuadorian coast. Production rose from 1,200 hectares in 1973 to 14,000 hectares under cultivation in 1977. Production was 19,000 tons in 1977 (on a harvested area basis.) The yield was 35 quintales (100 lb sacks) per hectare.

An invitation was extended by MAG, USAID/Ecuador and Banform to participate in the soybean project in Santa Elena Península. The soybean project was one of the major factors for moving into Santa Elena Península programatically and physically. MFM phased out its programs in Daule and moved only into Santa Elena Península.

Soybean production began in two small Península towns of Azúcar and Dos Mangas. MFM worked with 30 farmers in 1975 on about 200 hectares. The objective was to demonstrate and learn soybean production in almost complete semi - arid and semi-drought conditions. After home consumption, soybeans were to be sold. Initial trial and error was made and there was some progress. Farmers were learning how to produce soybeans. At that point MFM expanded its program and developed a plan through 1978.

In 1974 - 1975, MFM launched a soybean marketing study to determine how soybeans could be marketed in Guayaquil. It was thought that soybeans could be added to flour for a soya bread and could be sold in supermarkets. MFM began to market test soybeans in different forms. They looked to reach low-income urban families as well as middle class groups. The study was conducted in late 1975 with promising results.

The 1976 drought wiped out the efforts to continue the soybean project. Farmers were not able to produce soya at all so that all the dreams were blown away with the hot drought winds.

Deliberate or planned development of subsistence agriculture requires a lot more than theories and empirical evidence supporting them. The task is to derive useful operational approaches to bring about the more rapid development desired. In beginning a new production, or to introduce a new crop, it is vitally important to look at the whole system. It is our assessment that while MFM made a good and earnest attempt at introducing a new crop into a new area, it "learned a lesson" that this is very difficult. There are a very large number of interrelated factors and the unique importance of any one factor or series of factors in any given situation makes this production very difficult. Solutions that concentrate upon a single factor while excluding all others are rarely successful.

MFM staff members were aware of these interelated and complex issues but did not take them all into account while planning and executing the project. A few examples of "lessons learned" will make clear insights that could have affected the program differently.

1. Staff members were certainly aware of the precarious nature of weather on the Península. There had been serious droughts before so to start something new with this principal variable looming over the horizon was to take a serious risk.

2. Staff members had practically no experience in soya production. The Ecuadorian staff was energetic yet not experienced in small scale farming. The American staff members had some soya experience and some Ecuador agricultural production experience.

3. The farmers had little experience in soybean production and were not high risk takers nor progressive farmers.

4. The soya marketing study was expansive and represented productions levels beyond what could have been expected initially. Marketing functions did not coincide with production functions.

5. MFM staff and the farmers did take into account some of the interrelated factors for marketing decisions. A detailed marketing study was prepared and incorporated into the plan. Unfortunately, all of the exogeneous factors were not considered.

The following chart outlines the planned objectives through 1978, actual accomplishments achieved through 1978, and the reason for outcome.

The closing of the Soybean Project, terminating Phase II of the MFM effort in Ecuador, is seen basically as external forces inhibiting and then busting up that program. While for the most part true, it should be emphasized that internal factors also affected the program. At any rate, MFM now had to begin to focus on where it was going next. That let gradually into Phase III, the applied nutrition program.

E. Applied Nutrition Program 1978 - Present

The Applied Nutrition Program phase started in 1978, and is a comprehensive integrated program aimed at affecting the lives of some 700 rural farm family members on the Santa Elena Península through income - generating projects and by improving the nutritional and health status of these families.

SOYBEAN PROJECT 1972 - 1978

PLANNED OBJECTIVES*	ACTUAL ACCOMPLISHMENTS	REASON FOR OUTCOMES
1. Have 180 farmers working with 600 hectares of land	1. 52 farmers cultivating about 150 hectares	1. Interest was not as high as expected; weather impeded expansion as planned; other inputs failed to materialize as planned
2. Train 180 farmers in improved farming practices	2. Trained 52 farmers in modern soybean production	2. Excellent training to those receiving; less numbers due to factors elaborated above
3. Expand the number of organized groups to 7	3. Expanded groups to 2	3. Unrealistic to expect seven groups; groups organized are good and exist informally today
4. Train 50 farmers in equipment maintenance and operation	4. Trained 30 farmers in equipment maintenance and operation	4. Training not complete as farmers could not handle tractor as professionals; number trained down graded due to factors above
5. Form a soybean growers association of Santa Elena which will have the option to purchase stock in the Don Pito Company in Guayaquil	5. No soybean growers association was founded though about 30 farmers and five communities were interested in doing so.	5. Soybean never got off to start to enable them to develop full scale marketing issues; unrealistic to start full-scale marketing plan
6. Gradually turn over all phases of involvement to local farmer oriented control	6. No soybean production ever really got off ground to turn over control	6. Project never reached this stage to turn over control
7. Increase individual income derived by farmer soybeans to US $ 1,250	7. No massive soybean production and thus no perceivable increased income by soybean farmers	7. Drought is primary reason for failure of soybean project; secondary issues relate to need for more study of whole system

* Taken from MEM Proposal in 1975.

The project is following a four - phase approach to development:

Phase I Feasibility Survey and preliminary planning; 1978

Phase II Collection of baseline data and detailed planning; 1978-79

Phase III Program operations in pilot zone or zones; 1979 - 1982

Phase IV Expansions to new zones; 1982

The Applied Nutrition program looks graphically as follows:

Applied Nutrition Program

Horticulture Development Project Credit and Grants	Poultry Raising Project Credit	Nutrition Education Project	Rural Infrastructure Project Credit
Vegetable Technical	Farming Service	Technical Service	Courses Clinical Services Community Gardens	Cottage Industries Community Projects

Each of these projects is supported by two principal elements: 1) credit and 2) technical assistance. There are some general principles underlying the Applied Nutrition program as follows:

1. Farm families themselves must demonstrate interest in receiving technical assistance and to be a part of the program.

2. A visit is made by the MFM staff to the community to assess their needs. An evaluation of resources is made with the community.

3. A decision is made by MFM to provide technical assistance.

4. Agreements are made with the small-scale farmer.

5. Community programming is made between MFM and the community. This process is done informally. Plans are discussed with the community and approved verbally with the community.

6. Implementation commences with a combination of credit and technical assistance. Both of these components go hand in hand. Technical assistance includes production and marketing or commercialization.

Agricultural development normally considers three interrelated areas:

1. Planning

2. Production

3. Marketing

An integral program normally provides services or at least be concerned with all three elements. MFM service relates to all three of these areas.

MEALS FOR MILLIONS PROGRAM IN ECUADOR

MAP OF PROGRAMS AND ACTIVITIES BY RURAL COMMUNITIES

RURAL COMMUNITY	HORTICULTURE	POULTRY RAISING	NUTRITION EDUCATION	RURAL INFRASTRUCTURE	SMALL GRANTS
DOS MANGAS	Vegetable farming 6 families	10 families; 2,500 poultry per cycle; 12,500 poultry per year	17 children in weight-size control program; 37 mothers in nutrition education talks	One low-income housing project	To one farmer; 10 poultry raisers; one housing recipient
AZUCAR	Two farmers in vegetable farming	7 families; 10,500 poultry per year			
LOMA ALTA	16 farmers in vegetable farming	Two families; 3,000 poultry per year	20 women meet for nutrition talks 9 women with community vegetable garden	Center of farmers association; heavy tractor use	2 poultry; Vegetable garden
SAN VICENTE DE LOJA	5 families in vegetable farming	One family; 1,500 poultry per year	9 children clinic 9 women nutrition talks		Vegetable garden
OLON	4 families vegetable farming	One family; 1,500 poultry per year		Water pump for school	Water pump; poultry
MANGLARALTO		One family; 1,500 poultry			Poultry
SINCHAL	3 families Vegetable farming	One family 1,500 poultry		Bakery oven	Bakery oven; poultry

SALANGUILLO (El Salado)	14 families vegetable farming				Horticulture
SITIO NUEVO	4 families vegetable farming		36 women in nutrition talks		Horticulture
GUANGALA	One farmer (experimental water menlon)				Horticulture
VALDIVIA	Two farmers in vegetable farming				Horticulture
BARCELONA	Four families		18 children, 25 women		Horticulture
PALMAR			45 children 27 women		
PECHICHE			25 children 44 women		
TOTALS 15 Communities Corrected/cons	61 Farmers	23 Families	114 Children 168 Women	3 Projects	55 Farmers 23 Poultry Families 3 Projects

As A. T. Mosher indicated in Getting Agriculture Moving (1966) there are five essentials and five accelerators that are universal for agricultural development. The five essentials are:

1. Markets for farm products
2. Constantly changing technology
3. Local availability for supplies and equipment
4. Production incentives for farmers
5. Transportation

The accelerators are those factors that, while not absolutely essential for agricultural growth, can make a contribution to speeding up the rate of growth once the essentials are met. The five accelerators are:

1. Education for development
2. Production credit
3. Group actions by farmers
4. Improving and expanding agricultural land
5. National planning

In overall planning there is alot of integration of their diverse projects but it could be enhanced even more. For example, the nutrition education project is coordinated in planning and execution with horticultural development. They operate together and normally do complement each other.

Keeping in mind that these programs are to be integrated, we separate out these sub-projects for description and analysis.

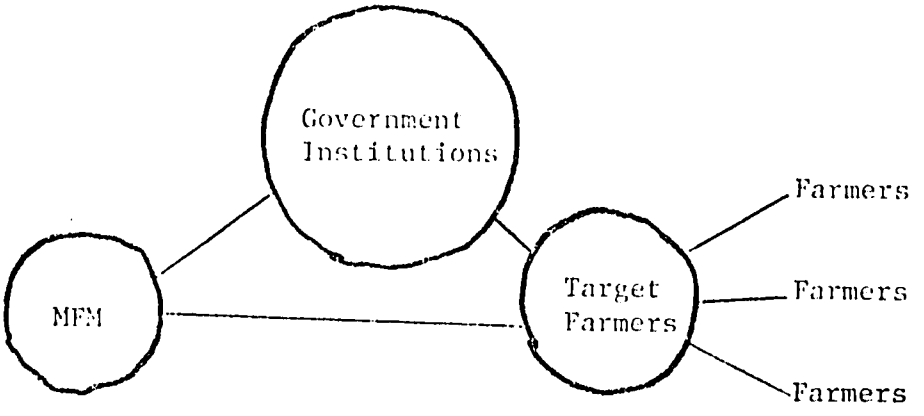
1. Horticulture Project

The Horticulture Project is the backbone of the rural integral development program. Starting in 1977, MFM began to develop gradually a vegetable production program. This was in response to the failure of the soybean and the serious drought.

By 1982, MFM concentrated its work with about 70 farm families in 10 rural communities. Those are Dos Mangas, Loma Alta, San Vicente de Loja, Olón, Sinchal, Salanguillo, El Salado, Sitio Nuevo, Valdivia, and Barcelona. These are among the poorest villages of the Península and these farmers are those rugged individuals who have decided to continue in agriculture. MFM's influence in these communities has been considerable, as is seen in the impact chart on page 60. These farm families are growing tomatoes, peppers, cucumbers, onions, melons, watermelons, cabbage, lettuce, and some pineapple, carrots, and beets. It is quite remarkable to see these products in a desert-like drought situation. There are about 105 hectares under production.

MFM direct assistance reaches about 20% of the roughly 700 small scale vegetable farmers on the Península. Other farmers are being assisted by the Ministry of Agriculture or the other private groups CESA - FEPP. About 50% of all farmers do not receive technical or financial assistance. There appears to be minimal overlap or duplication in the technical assistance effort by the development organizations.

MFM follows a somewhat moderately progressive technical assistance model in agriculture. A model of operation, described by MFM itself, is as follows:



MFM ACTIVITIES	MFM TECHNICAL ASSISTANCE	FARMER PRODUCTION	IMPACT
o Administration	o Resource Assessment	o Use of credit	o Increased production
o Resources	o Technical Assistance	o New skills	o Multiplier effect with other farmers
o Contacts	o Credits	o Agric. production	o Better nutrition
o Experience	o Visits		o Self-worth concepts
o Seeds	o Inputs		o Modernization of farmer
o Credit Funds	o Mechanization		o Increased income
o Trained Specialists	o Non-Formal Education		

In the first component, MFM is recognized on the Península as a serious and well-dedicated institution. Everyone knows that it is American-based; all know it is a development organization; and it is well-respected*. It has a certain mystique about it for integrity, faithful service, fulfilling promises, and being low key. Farmers and other change agent institutions recognize the institution as having good technical information, experience, and financial and technical resources.

In the second area, MFM provides support through direct technical assistance. This is through resource assessment or community studies, credit, visits, seeds, farm equipment, and any other input it can make to assist small scale farmers.

The farmers themselves are attempting to grow new crops on drought lands to increase production for better income. They know that vegetable farming is difficult but preferable to other kinds of economic activities. They believe strongly that living on the farm is important economically and socially.

---

* An idea occurred to this writer at the beginning that Meals for Millions ought to change its name. Yet, almost everyone can pronounce the same correctly, identify with the name, and haven't the foggiest notion of what it means. Those who fail to pronounce Meals for Millions simply say "la fundación". It would be a mistake to change the name and the prestige that goes behind the institution.

The expected impact is increased production, better nutrition, increased incomes to do other things. From MFM's point of view, these "new progressive farmers" will have a multiplier effect on other farmers; will have better self-worth concepts; and will become more modern farmers.

MFM is a principal force for vegetable farming on the Península. Starting four years ago, they have been able to influence up to 105 hectares of vegetable production. This production, under drought circumstances, is respectable, as follows:

HORTICULTURE PRODUCTION

MFM PROJECT FARMERS, 1982

Product	Price per Unit	Hectares	Production per Hectare
Tomatoes	S/. 180/carton	63	1,500 cartons per hectare
Peppers	S/. 400/sack	26	400 sacks per hectare
Cucumbers	S/. 15/dozen	5	3,000 dozen per hectare
Melons	S/. 12/each	4	30,000 per hectare
Watermelons	S/. 40/each	5	4,000 per hectare
Onions	S/. 300/100 lb sack	2	300 100 lb per hectare

Source: MFM records, 1982.

In addition, there is also production of some citrus trees, mainly lemons, as well as some cabbage, lettuce, pineapples, and papayas. The bulk of production is tomatoes, peppers, cucumbers, melons, watermelons, and onions.

Most likely at least 50% of these farm families would not be in vegetable farming without MFM encouragement and support. MFM's encouragement is with seeds, technical information, credit, and weekly visits. Farmers feel that support substantially.

As we have discussed the horticulture project is an intensive, direct technical assistance effort, with 70 farmers in 10 rural towns. Technical assistance is provided by both the Project Director andthe agronomist. In the last year the Project Director has been relinquishing his work in horticulture to concentrate more on the poultry raising and rural infrastructure projects.

Extension consists of making bi-weekly visits to the 70 farmers in the ten villages. The agronomist spends roughly 20-30 minutes with each farmer. He walks in the fields with the farmers and inspects the crops, insects, land, and makes recommendations. For those with serious plague problems, he takes out his notebook and writes out a "prescription" for an insecticide. He will also recommend fertizers, seeds, or new planting and irrigation techniques. The farmer takes that "prescription" into Santa Elena and can get credit and input from one of four feed stores associated with the MFM program.

All this extension is done informally. There are few records kept of visits and a carbon copy of his"prescription." For farmers who have had no assistance before, they are grateful and respectful. They feel the genuine support of the agronomist. A young man who grew up in the Península in one of the small villages, he speaks their language.

The horticulture project works well.
It is an incomplete extension system by definition and practice and there are recommended ways for enhancing its performance. Yet, the essential ingredients are in place and it works smoothly.

2. Poultry Raising Project

The poultry raising project began in 1981 as a direct response to farmers needs to diversify. Initially a pilot project, there are now 23 families raising roughly 200-300 chickens each in eight week cycles. This program continues to expand with the new farmers enrolled in the program.

Almost all 23 families are small scale farmers who live in rural towns and have plots outside town or up in the hills. While they continue to want to be farmers, for all practicable purposes they have abandoned agriculture for the moment. The idea for poultry raising came from farmers and MFM almost simultaneously.

To begin poultry raising a farmer must build a poultry pen. This is a prerequisite for receiving assistance from MFM. The MAG Veterinarian inspects and approves the pen as suitable for chicken production. At that point, MFM provides S/, 17,000 (roughly $ 320) credit to the farmers at no interest rate for a period of eight to twelve weeks. That money is not received directly by the farmer but rather is a coupon or receipt for purchasing supplies at four distributors in Santa Elena. MFM writes out a "prescription" and the farmer can purchase feed troughs, water troughs, balanced meals, vitamins, vaccines, and the baby chicks themselves.

Poultry raising is not complex and is something farmers can do quite well with minimal guidance. Certain practices such as pen sizes and structure must be followed; vaccines; vitamins; medicines for breathing disorders; space for chicken growth; and fumigation after each eight week cycle. The pens can be built for about US $ 100 supplies and 70 hours labor. Once functioning, care for chickens can be made by all members of the family.

One immediate advantage of poultry raising is an increase of poultry consumption in the family and neighbors. Families take care of their own needs and the community before selling in the market. This adds good protein over roughly 30-40% of the year almost directly for these farm families.

The 23 farm families sell roughly 4,000 chickens every 2.5 months, or five cycles a year, for a total of 20,000 chickens sold in 1982. (This is not an overwhelming amount of chickens compared with some producers who produce 30,000 chickens on only one farm.) There is a certain risk in chicken farming because of some instability in chicken prices and increasing costs of food and medicines. Most likely farmers will have to raise prices per pound sold to distributors. Another risk is that initial start-up costs (pen, troughs, etc.) may require no profit margin or even perhaps slight losses for one or two cycles. Also, farmers can expect up to 10% losses of chickens through transportation over rough roads, sick chicks, disease, and poor care. Yet, once initial investments and experiences occur, farmers can expect a 10-15% profit margin, or about US $ 800 per year profit. Over a few years

farmers can expect this to increase. The important thing is that it can be used in addition to other activities such as farming.

Farmers are learning a couple of important skills and management in the process of poultry raising. They learn market issues from a different perspective. Also, they learn alternative rural development programs in addition to farming.

There are certain doubts by this writer that poultry raising will remain a sustainable profession for farmers. It is still--something new. It is a meaningful and for many a desperate effort to remain in a drought area.

3. Nutrition Education Project

Nutrition Education is catch-all concept that can involve many and varied activities related to health and nutrition of a community. It has included direct feeding programs in one school to a nationwide campaign to improve protein consumption. Techniques range from direct one-on-one technical assistance to far removed and indirect radio campaigns. All have their validity when well-coordinated and implemented in a well-thought out and planned program.

In early 1980, MFM made a decision to begin a Nutrition Education Program. Members of MFM, Seguro Social Campesino, Ministry of Health and Ministry of Agriculture began a careful analysis of data from the socio-economic and nutrition surveys completed in 1979, in six rural communities in the parishes of Colonche and Manglaralto. Those communities were Olón, Dos Mangas, Barcelona, Loma Alta, Palmar, and Guangalá. Information gathered included nutritional status survey of children aged 0-5 years, medical facilities, latrines, number of schools and school children, and other available infrastructure in those communities. Later on three other communities Salanguillo, Sitio Nuevo, and San Vicente de Loja were added to the program, while Guangalá was dropped. Therefore, there are eight communities involved in the program.

MFM works closely with the Seguro Social Campesino doctors and Social Workers in Santa Elena and they work through the health dispensaries in four of the eight rural communities. It works out of the schools in the other four communities. In addition there are three community vegetable farms that are also part of this integrated program.

The Nutrition Education Program has the following components:

- Weight and height control of children 0-5 years old
- Nutrition education talks
- Pre-natal control for pregnant women
- Family planning talks and discussion
- Young Women's Club
- Nutrition and health talks at primary schools
- Community vegetable gardens

This Nutrition Education Program is a little over 18 months old and is really only getting off the ground. The seven components are at different stages of development themselves and also in each community. Only two components (weight and height control of children and the community vegetable gardens) involve action or physical activity while the other five are cognitive talks and discussions. They are pre-activity interventions with expected cognitive, attitude, and behavioral changes to take place as a result of talks and discussions.

The following charts are "maps" of the different activities taking place in each community. It shows clearly the varied activities in each community and how only a reduced number of the full range of activities is available in each community. In each case it is necessary to concentrate in these communities to "fill out" the map so that more intense and concerted efforts are available in these communities. About 150 children are attended; 120 women participants in the nutrition education programs; 59 young woman and teenagers are in the Young Women/s Club; and 40 primary school children receive nutrition talks.

NUTRITION EDUCATION COMPONENT

TOWN / ACTIVITY	WEIGHT CONTROL CHILDREN	NUTRITION EDUCATION	PRE-NATAL CONTROL	FAMILY PLANNING	YOUNG WOMEN'S CLUB	PRIMARY SCHOOL TALKS	COMMUNITY GARDENS
DOS MANGAS	Social Security dispensary control two groups of 0-2 years and 2-5 yrs. Monthly control of weight and height. 15-17 children	Talks based on nutritional status of children to 30-37 women. Various topics. Represents 60% of available women in the area					Eleven women have community gardens.
BARCELONA	Social Security dispensary 12-18 children in health care	15-17 women in nutrition education talks.	Pre-natal control for 15-17 women.				
PALMAR	Social Security dispensary 40-45 children				27 young women in classes		
PECHICHE (El Real Manantial)	Social Security dispensary 20-25 children		12 women attend	10 women attend meetings	32 women attend		
LOMA ALTA	35 children	Meet at school. 20 mothers and young women					9 women with community gardens
SAN VICENTE DE LOJA	Some control of children 8-10	Meet at school. 9 women					5 women with community gardens
SITIO NUEVO		Meet at school. 35 women					
SALANGUILLO		Visit at homes				Meet at school. Class with 30-40 primary school children	
	150 children	120 women attended			59 young women	40 children	

See further explanation p. 35

NUTRITION EDUCATION PROJECT

COMMUNITY	PROGRAM AND ACTIVITIES
Dos Mangas	Program held at Seguro Social Dispensary. 17 children receive weight and height control. First group is 0-2 years old and second group 2 - 5 years old. Recommendations are made to parents according to nutritional status of children 37 women receive general nutrition education talks monthly.
Barcelona	Meetings held at Seguro Social Dispensary 18 children receive weight and height control 17 women receive pre-natal care 18 children receive healthy children control 25 women receive family planning lectures and discussions
Palmar	Meetings held at Seguro Social Dispensary 45 children, in two groups, receive weight and height control 27 young womens club participants; talks on sex, family planning
Pechiche	Meetings held at Seguro Social Dispensary 25 children receive weight and height control 44 women attend various nutrition education programs Program started in April, 1982. Other local communities of Real and Manantial also attend in Pechiche. 10 women attend family planning sessions 12 women attend pre-natal care 32 young women in Teenager Club; discussions on family, sex, family planning.
Loma Alta	Meetings held at community school 20 adults attending nutrition education lectures and discussions
San Vicente de Loja	Meetings held at community school 9 children attend weight-height control 9 women receive nutrition education discussions
Sitio Nuevo	Meetings held at school 36 women receive nutrition education talks. Program started in June, 1982.
Salanguillo	Meetings held at community school Program just starting July or August, 1982. Initial talk. Some interest.

The positive aspect of this program is that for the first time in most of these communities there is a weight and height control program for young children. MFM is finding some severe cases of third level malnutrition, and many cases of second level malnutrition. If detected early enough they can be corrected before causing long term harm for those children. There is good data base to make professional recommendations.

On the other hand, MFM needs a conceptual framework for this program that uses applied nutrition education for the region. Because of this overall view, there is only some sequential programming that uses communication strategy and nutrition curriculum effectively. There is a requirement for more energetic pursuit of goals, looking for openings, integration and initiatives. There must be a search for more wide vision of nutrition education.

There is almost complete absence of sound education techniques. There is a need for a reworking of the curriculum so that it is in line with community needs. Teaching follows more traditional formal education techniques rather than non-formal adult education methodologies. MFM needs to explore pragmatic learning which would include demonstration, on-the-job training, cooking, practice of new techniques, and relating more directly the community vegetable gardens with the educational programs.

It is not possible to discern impact yet, though there appears to be cognitive (knowledge) and perception (attitude) changes by many of the women. However there still are minimal behavior (practice) changes resulting in any noticeable nutritional changes yet.

4. Rural Infrastructure Project

This project provides alternative employment generation opportunities for small scale farmers. It is an exciting prospect for this semi-arid Península. MFM began to assist in rural infrastructure at least four years ago with the provision of a small farm tractor for clearing land and cultivating. Another opportunity arose in 1981 with the donation of water pump for a school in Olón. Last year they provided credit for a family-owned stove to produce bread for the community of Sinchal. This year they assisted the Santa Elena office of the Ministry of Education to build a solar stove that could be introduced into rural communities

through the schools. These direct physical interventions are examples of ways that MFM has begun to work in rural infrastructure.

MFM's involvement in rural infrastructure in not structured. The overriding objectives are as follows:

1. Provide support for job opportunities and employment opportunities

2. Support cottage industries in rural towns

3. Assist community -level water systems with pumps and credit.

4. Support government-sponsored rural infrastructure projects in the Península.

The following chart shows that MFM works directly and indirectly, as well as in physical and social activities to support rural infrastructure.

RURAL INFRASTRUCTURE PROJECT

Direct Physical	Direct Social
1. Dug wells and pumps	1. Santa Elena Península Farmers Association
2. Farm equipment	2. Assist in community legal issues
3. Barbed wire, seeds, fertilizers, insecticides for community vegetable gardens	
4. Reforestation program	
5. Soil conservation program	
6. Solar oven	
7. Baking cottage industry in Sinchal	
8. Rural housing in one community	

Indirect physical	Indirect Social
1. Rural roads	1. Organizational development of communities
2. Rural electrification	2. Inter-Institutional Coordination Committee
3. Dispensary construction by community	3. Liaison with Banco de Fomento for credit
4. School construction by community	4. Assist Ministry of Education literacy program
5. Olón water supply system	5. Technical assistance to other communities not in program
6. Small dams and San Vicente dams	6. Coordinate ministerial contributions to the region

As can be seen by the matrix, rural infrastructure is an exciting part of MFM's program. The institution has made a small yet meaningful contribution to the Santa Elena Península. The direct physical program (wells, pumps, bakeries) have been supported with the small grants program.

A. Direct Physical Infrastructure

This category includes the major activities sponsored or provided by MFM, as follows:

- Dug wells and pumps. MFM has provided technical assistance and credit to dig wells and has donated pumps for community vegetable gardens in three communities. These have enabled the communities to start gardens as well as pump water in drought-stricken communities.

- Farm equipment. MFM has two tractors and other small equipment. It is used for community members plowing. Starting in 1978, the tractor has been loaned to farmers. Farmers are responsible for operation, upkeep, maintenance, repairs, and scheduling. By 1979, 112 hectares had been plowed, disked, planted, rotated in eight communities. Once the farmers association receives legal status these farm equipment will be turned over to them.

- Community Vegetable Garden Inputs. MFM has provided barbed wire, seeds, credit, fertilizers, pumps for community vegetable gardens. Once the community decides and organizes to produce a vegetable garden, MFM can provide services and credit.

- Reforestation Programs. MFM assists sporatically with MAG, the schools, Ministry of Education, and the MAG nursery in the vast task of reforesting Santa Elena Península.

- Soil Conservation Programs. MFM collaborates with MAG in testing new pasture seeds provided by FAO. New drought resistant seeds may be helpful in stemming desertification of the Península.

- Solar Oven. In collaboration with Ministry of Education a model solar oven was built and is to be introduced into schools. Seven teachers on the Península volunteered to learn about the construction of the oven and to teach their colleagues.

- Baking Cottage Industry. In Sinchal, MFM provided credit to build a bread oven and thus start a cottage bakery industry. Now five other ovens have been built in Sinchal with no credit; a good example of a multiplier effect. If the low income housing project is a successful activity, MFM plans to provide further credit to the communities.
- Low income housing. Credit to build a house in Dos Mangas.

B. Indirect Physical Infrastructure

MFM's influence and presence as a private development organization has encouraged some of the physical infrastructure in the Península. Although not directly involved in these projects, it ismost probable that they have encouraged new projects.

- Rural Electrification. All rural communities of project area now have electrification, except two.
- Dispensaries. Three dispensaries built by communities, with coordination by MFM.
- Schools. Two schools built by project communities, with MFM direct assistance.
- Olón Water Supply System. MFM provided a water pump to the school. While inadequate for whole community it most likely influenced IEOS to produce a community water system.
- Small Dams and San Vicente Dam. Several dams on Península as well as large uncompleted San Vicente Dam.

C. Direct Social Programs

MFM works directly in several social and community organization programs, as follows:

- Farmers Association. With MFM direct support, a farmers Association -AGRUPENSE- began to form in 1979. By 1982 it has 60 small-scale farmer members and will get legal status most likely by the end of 1982.
- Community Legal Issues. MFM provides direct legal assistance for the 15 rural communities in the Península.

D. Direct Social Programs

Indirectly, MFM supports varied social and community organization programs:

- Community Development. MFM lends support to community development programs by the communities.

- Inter-Institutional Coordination Committee. MFM is a founder of a committee of 10-15 government and non-government organizations that attempt to coordinate this work in the Península. It has only been moderately successful, yet couldbe instrumental for integration of outside sources for the communities.

- Banco Nacional de Fomento Credit. MFM supports communities in soliciting credit funds from the Banco Nacional de Fomento.

- Ministry of Education Literacy Program. MFM assists morally and in coordination the Government's literacy program on the Península.

- Community Technical Assistance. When possible, MFM provides technical assistance to other communities in addition to project communities.

- Collaboration with Government Programs. Over the past 10 years MFM has inspired and supported government programs in the Península. Over 18 government groups now work in Península through the persuassion of MFM.

Meals for Millions makes a positive contribution to rural infrastructure and thus to rural integral development. It is offering alternatives to farming and necessary rural infrastructure such as dug wells, pumps, small farm equipment, soil conservation, and reforestation. It engages farmers in social organization, so necessary as an integral part of development. For better and for worse, its investments in rural infrastructure are small-scale and can really only make a difference in the short range. They are not making investments or involved in large scale rural infrastructure that could make a difference over the long term. For example, the long term solution for the Península is an enormous investment in water. That calls for water systems, sewage systems, dams, diversion of rivers, water pipes from water sources, and huge infra structure. MFM meanwhile invest in shorterm and

not sustainable small water wells and pumps.

The rural infrastructure program is needed and they do it well. The US Peace Corps has promised a volunteer to work in rural infrastructure, partially based on the incipient results of MFM. Another volunteer has been requested for nutrition education. Together they will be able to provide assistance to bolster this program. MFM could spend much more time and effort in this sector with promising results.

5. Small Grants Program

The Small Grants Program was initiated in 1981 with US $ 10,000 funds in a credit rotation program. In 1982 this was increased to US $ 12,000, of which 90% is credit rotation and 10% grant. The purpose is to provide easy and fast credit to support self-help projects. There is nothing fancy about the program and nothing new; except that it works well. Ninety nine percent of all credit is repaid-an outsanding record.

Twenty farmers and 23 poultry raisers receive credit. Credit or donations have also gone to the three community vegetable garden plots, one house project one irrigation pump for a school, the cottage bakery, a proposed marketing project, an experimental watermelon plot, and the solar oven. It is a fund also for contingencies that come up with private development program.

The Small Grants Program (credit rotation) services the MFM other programs (agriculture, poultry raising, rural infrastructure) and like technical assistance is a service instrument to facilitate those programs. As a service instrument it works exceedingly well. MFM staff members write so-called "prescriptions" for balanced foods, medicines, seeds, pesticides, fertilizers, and farmers receive these items on credit from four distributors in Santa Elena. It runs smoothly with no problems.

The philosophical implication of the program is that it could create dependency. This is handled well because farmers must fulfill certain prerequisite requirements before receiving credit. That includes preparation of land, building a poultry pen or purchasing matching equipment for a rural infrastructure project. It is also excellent in combining well technical assistance and credit in a good package.

It is possible to extend this program easily to other farmers, specially for agricultural production and rural infrastructure programs. MFM can stimulate core farmer projects by letting people know of its service credit and setting forth the prerequisites and technical assistance requirements. The high

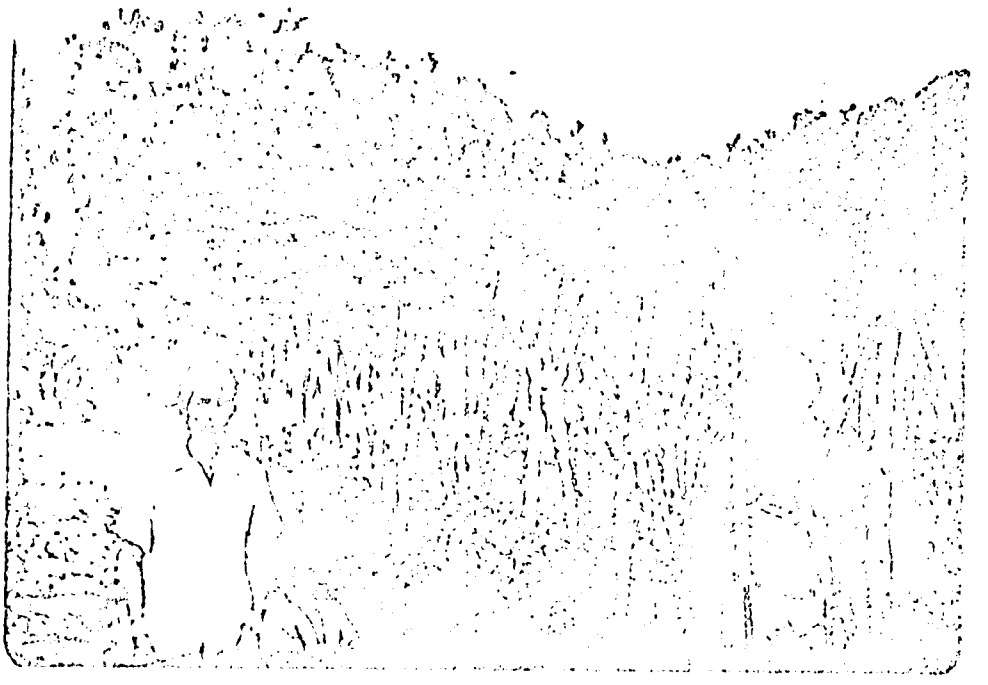
administrative costs of this program will be evened out over the years with such expansion.

MFM provides the only alternative credit line in the region to the Banco Nacional de Fomento. Therefore it tis in a good position to expert more pressure.

In this section we have reviewed and analyzed the MFM program elements.

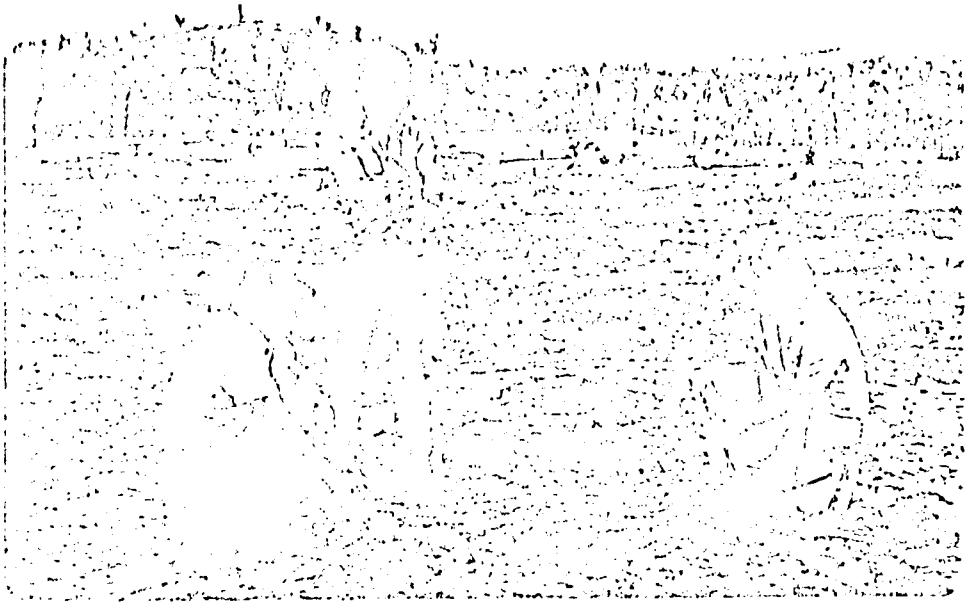
The following chart is the logical framework produced by MFM as their program planning 1982 - 1984.

GOAL	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
To reduce the incidence of malnutrition of the most vulnerable groups in the pilot project area and to strengthen the capabilities of rural communities and local health delivery systems.	-Decrease in mortality and morbidity in 0-5 year old group -Increase nutritional status among 0-5 year old group -3 new health centers constructed and functioning with government health personnel	-Weight/Height measurements -Health center records	Increased income will result in increased capability to purchase require nutritious foods
PURPOSE			
To increase yearly income of 60 families selected in the Program's area of influence from $120 per annum to $240 per annum over a four year period.	-Cost of water reduced -Increased purchases of nutritious foods -Increased sales of garden and small animal produce -Increased purchase of consumer items -Actual family income	-Records -Surveys -Reports -Store sales records	-Water is available -Populations remain stable -People continue to cooperate -Land is made available -Produce/animals are sold for profit
OUTPUTS			
Coordination of development activities with the InterInstitutional Committee To implement self-help/income generating projects Provide technical assistance to agricultural activities Provide nutrition education to mothers in six communities of the pilot area Development of water resource program Design of marketing plan Clinic control of 0-5 year old children to include at least 50% of target group	-Periodic meetings with committee members -Respective field staff are implementing work plans -60 families are implementing income generating projects in vegetable gardening and/or animal projects -120-150 mothers have participated in nutrition/ health education classes -Marketing plan is implemented -One well is dug in each of 9 communities and supply sufficient water for drinking and some irrigation -Families involved in income generating projects are using fertilizers, improved seeds, and improved agricultural methods -Control of X children every 2 months	-Records -Surveys -Observations -Questionnaires -Reporting forms -Data collection -Project management system	-Committee remains active -Technical personnel are available -Community groups work together -Parties to the project carry out their responsibilities -Political stability -Materials and equipment arrive on time
INPUTS			
Personnel (4 MPH/FFH Staff) -Community Inputs (Labor, local materials) Materials/Equipment (Seeds, fertilizers, insecticides, tools, etc. Vehicles (2) GOE Inputs - Personnel -Veterinarian - MOA -Agriculturist - MOA -Home Economist - MOA -Medical Personnel - [illegible]	1982: $ 91,000 1983: $101,010 1984: $113,131	-Records -Reporting forms -Observations -Data collection -Financial reports	-Funds are available as required -M/E at the project site when needed -GOE continues to provide personnel -Land and water are available as needed -Unanticipated expenditures



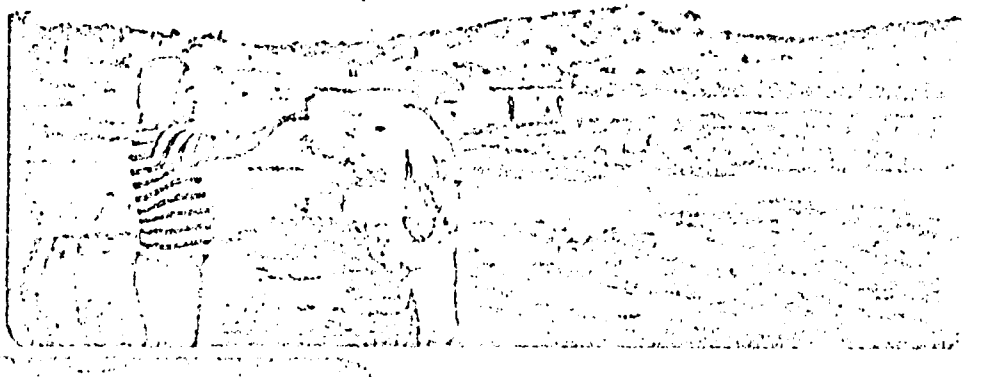
MFM agronomist taking notes on tomatoe crop
after discussing with farmer in Salanguillo

Agronomist, Project Director, and farmer
discussing correct way to cultivate tomatoes in Azucar.



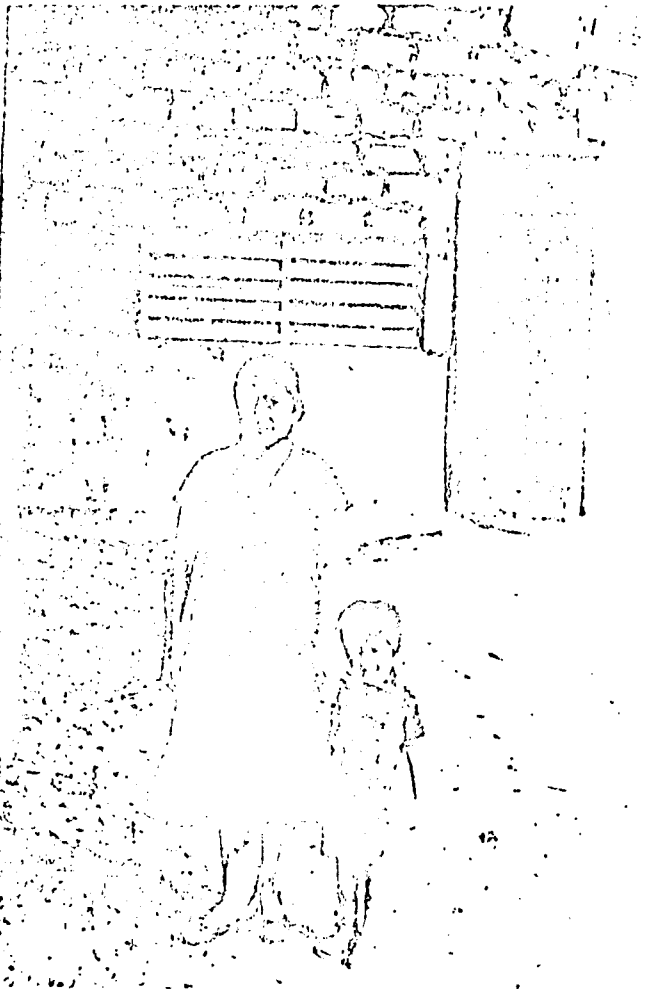
Farmer explains to MFM technicians his rationale for starting farming again after a two year separation. On previously unused semi-arid land in Azucar, they discuss planting of tomatoes.

MFM technicians inspect watermelon plants in semi-arid lands near old salt mining plant, near Palmar.



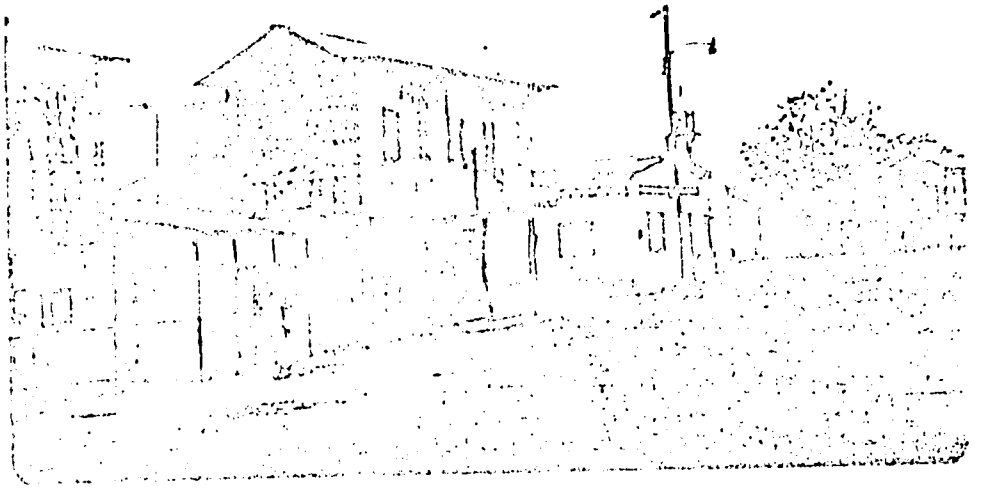
Farm family in Dos Mangas stand proudly in front of their new poultry raising project.

Nutritionist conducting height and weight control of children inside community primary school in Loma Alta.



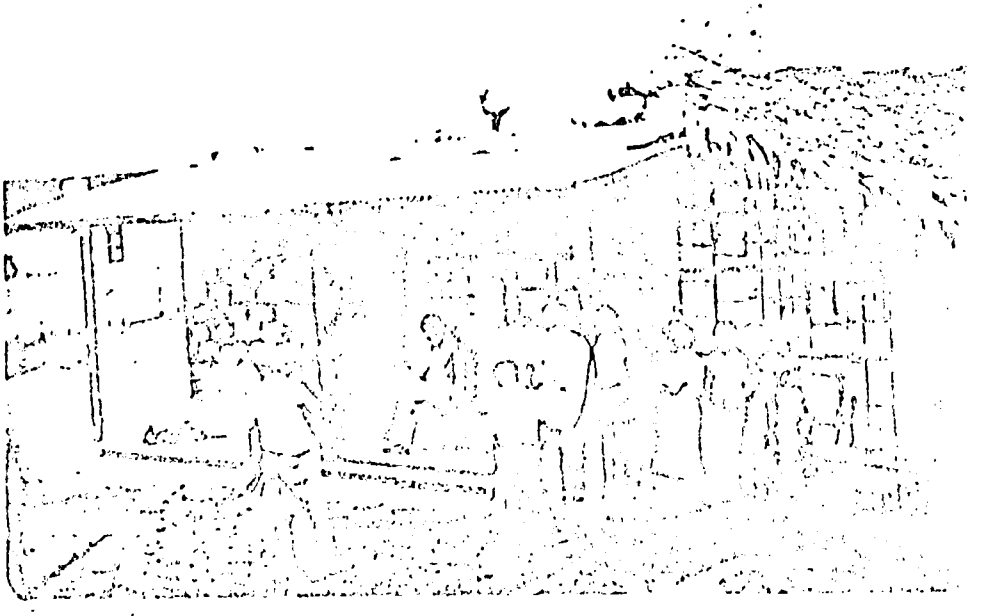
Loma Alta mother leaving school with child after weight and height control and after nutrition education discussion.

San Vicente de Loja boy who listened carefully to MFM discussions of health.



Typical Santa Elena Península town with bamboo houses, small store, church, rural electrification. In these towns MFM support well projects, bakeries, and other potential rural infrastructure projects.

Farmer meeting with MFM Director in San Vicente de Loja to discuss water wells and need for water drill to expand dug wells in Península.



President of Agrupense-Farmers Association-discusses with MFM technician ways to reforest the Península. They stand in front of Ministry of Agriculture nursery in Loma Alta.

IV. ADMINISTRATION OF MFM

Program administration of rural development programs must always have flexibility. MFM has demonstrated that flexibility well.

A. MFM Headquarters

The MFM Headquarters in Santa Monica, California is a leader in directing the goals and purposes of project implementation in Ecuador. It is capable, experienced, and concerned with rural development to provide that leadership. Its experience in applied nutrition programs is also passed on quite well.

MFM Headquarters conducts four inspection visits per year in Ecuador. These are certainly adequate and may be even too many per year. Sometimes more intense and training sessions every six months might be more effective. This also might for a staff to do more local reporting to headquarters.

Untike an indigeneous voluntary or development organization, the MFM program is an international private voluntary organization. This influences the funding and project activities at the field level. There is no need for the field staff to raise funds, write proposals, look for funding sources, or become concerned with self-sufficiency. The program is supported completely from the headquarters. However, the Ecuador office provides all information so that headquarters can write its budget and get funding.

B. Field Staff and Set-Up

MFM/Ecuador functions out of a 5 x 10 meter 50 sqaure meter open office in downtown Santa Elena. It is simple by American office standards and ideal for its clients and relationship in the community. Right off the Santa Elena Plaza, it is ideal for the farmers who go there from the villages. It reminds one of the Snoopy cartoons in which the "psychiatrist" puts out the sign for business and the clients come off the street.

Starting at 8:00 a.m. every morning Monday-Saturday, the staff arrives and rolls up the metal shutter and opens for business. Inevitably two or three farmers will come in during the first 15 minutes and begin to discuss with the

MFM technicians their problems and requests. A "new farmer" may also arrive shortly thereafter to find out how he can get enrolled in the program, get some advice, or simply find out what the "Fundación" is all about. These "in-office" discussions take 20-30 minutes. Farmers leave with their "prescriptions" for seeds, fertilizers, insecticides, or poultry needs. Then the staff prepares to leave for the field for the day.

The staff spends roughly 50% of the time in the 15 communities. The nearest villages are 20 minutes away by vehicle and the farthest are 45 minutes. They get to the sites by 9:30. After staying out in the field most of the day they are back in the office by 4:00 p.m. Some time there are meetings at night and on weekends. Yet, the office is much more structured than one would expect in this type of work.

In mid-1982 there were four staff members: the Project Director, an agronomist, a nutritionist, and the secretary. They are all Ecuadorians from the Santa Elena Península area. Three live in Santa Elena itself and one in nearby Salinas. All are well-meaning and well-qualified to carry out this program. The Project Director has worked his way up the ranks with MFM from a volunteer in 1966, to an extension/social worker, to director. He understands all facets of the program well and has suffered with the failures and enjoyed the positive results made.

The staff has gone through several changes during the years. There were three American directors during the period 1964-1976. Also there was one American soybean expert contracted to assist with the soybean project. In 1977-1978, MFM had its first Ecuadorian Director. The present Director has been in that position since 1978, though with the program since 1966. There never have been many staff members. It is interesting that they follow a zero-based administrative procedure, only contracting people when there are needs.

There have been five directors in Ecuador with MFM since 1964. All directors appear to have been fairly solid in their work and their approaches. In 1977 MFM began having Ecuadorians as country directors. This has been viewed positively by Ecuadorians because of their closeness and intimate knowledge of Ecuador. Leadership at present appears to be excellent under Mr. Lautaro Andrade.

C. Administrative Issues

MFM/Ecuador administrative style in development on Península is basically non-directed in making decisions and implementing programs. It is patient at the seemingly slow progress or decline

of the Península. This is a major lessons learned over the period of this project. A potentially volatile situation of an American private voluntary organization has simply not occurred because of this patience.

The administrative staff has some program to train others or use other people who might become para-professionals or community facilitators. There have been training workshops for local farmers, coordinated and sponsored by the Ministry of Agriculture and MFM. MFM has also worked closely to form a Península farmers association called AGRUPENSE. It ran a workshop with the seven teachers in solar dryer activities. In this way they have made a solid effort to train people in self-reliance and to carry out their work in the future.

D. Budget

The budget for 1982 is US $ 91,000; expanding to US $ 101,000 in 1983 and US $ 131,000 in 1984. It is lean and MFM uses it money quite well. There is US $ 12,000 available for the rotating credit small grants program.

Program costs go directly into four sub projects and services that have been outlined above. Much of this cost is for MFM staff for direct technical assistance. Related expenses are with travel and transportation. The remaining costs are for support services.

E. Office Operation

The major office operation is handling of the small grant program. A very practical system has been set-up with the four Santa Elena feed distributors in which monthly bills are sent to MFM for payment. Farmers have accounts with MFM and are repaid after harvest or after poultry are sold. As noted above 99% of all credits are repaid and on time.

The office itself is quite bare and unattractive and could demonstrate more to the farmers a lesson that "The medium is the message." A dynamic office setting could consist of bulletin boards, agricultural information, posters, reminder materials, and other audio-visuals that take advantage of farmer visits to the office. Otherwise, the administration of MFM is excellent and runs smoothly.

V. PROJECT PLANNING, STRATEGIES, INTEGRATION, AND COMMUNITY PARTICIPATION

Meals for Millions normally proceeds with project planning and strategies in accordance with its stated goals and objectives. The organization supports self-help and participatory philosophies to accelerate rural development. We want to explore their planning and strategies used, as well as how they integrate their program and involve the community in participation.

A. Project Planning

It is debateable today about how much involvement of communities and community leaders there can be in the planning process. A few years back most organizations stated that the community should be involved in all stages of project planning. The pendulum has now swung to another position that communities should assist in program planning but that the development organization should have final responsibility for project design. MFM falls into this latter category.

1. How Projects are Planned

MFM/Ecuador and MFM/Headquarters work jointly to plan their projects. They receive input from the rural communities through their experiences and relationships with MFM. MFM/Headquarters provide general guidelines to determine how the project will function during a given year. The project itself is drafted by the MFM office in Ecuador. It is submitted to Headquarters for review and final presentation for approval.

MFM/Ecuador has considerable input into program strategies. This is viewed positively because it receives alot input from the communities. It influences headquarters into the areas it wants to be involved.

2. Original Objectives and Changes

Meals for Millions has steadfastly maintained its target groups is the poorest rural small-scale farmers. These people represent the poorest in the region and the last remaining families to stay in agriculture.

MFM's program is described as an Applied Nutrition Program. The guidelines for their programming come partially from a document prepared by Dr. Michael C. Latham. Appendix A contains portions of that framework by Dr. Latham. As described in that document, Applied Nutrition Programs consist of a wide variety of promotional and educational

activities whose purpose is to improve the nutritional status of the target population.

MFM has made many different shifts in programming since 1967. However, all of these shifts have remained within the context of an Applied Nutrition Program.

3. Participation by Groups in Planning

Both MFM and the communities feel united in a common effort. This has developed over ten years work in Loma Alta, Azúcar, Dos Mangas, San Vicente de Loja, and is starting to take place, in areas of work such as Sitio Nuevo and Salanguillo. Communities are reaching a new plateau of development whereby they play one development organization off another. They are becoming sophisticated at soliciting credit and assistance where needed. All are members of the Federación de Comunas Provincia del Guayas and have established themselves as bonafide comunas with legal status. Groups are united through the peculiar Comuna Law that governs land on the Santa Elena Península. That law requires that all land be held common to the comuna and that individuals cannot have individual land titles. The comuna divides up the land for use but not individual titles. The project cannot take advantage of this structure because they do not work with all farm families in the comuna. Also, other organizations work with the same comunas.

B. Extension Stategy

MFM's extension strategy is its principal mechanism for accelerating rural development. The normal procedure is to discuss directly with farmers in the communities or in the Santa Elena office. In the communities they spend their time visiting each farmers field. They visit each farmer roughly 30 minutes every two weeks.

MFM has evolved into this strategy primarily because of the level of education of the farmers. They can take better advantage of talking directly with farmers rather than indirect methods. While this direct extension method is very effective, it is our assessment that they could be even more effective by implementing a more comprehensive program.

There is considerable literature on extension and specially how an institution can take advantage of using several different strategies together. While MFM's strategy works well as far as it goes, it does not take advantage of these well-tested strategies. It uses direct technical assistance alone. The result though is that some impact may be lost because of less than systematic strategies of follow-up and practical demonstrations.

The strategy for both the horticulture and poultry raising projects is that farmers must first request technical assistance. MFM technicians visit farmers and then enroll them in the program. In horticulture, only 20 of the 70 farmers receive credit so that direct technical assistance is the only strategy used for extension. Poultry raisers receive credit and technical assistance together. The same is true for rural infrastructure. There is no direct technical assistance with the nutrition education program at the home level.

The extension strategy in comparison with government systems is well-organized and competent. But there are other elements that can be integrated into their extension strategy. If MFM intends to expand to other rural communities it should begin to establish a more organized system.

C. Communication Strategies

A communication strategy combines different elements to reach rural families to accelerate their development based on their basic needs and their problems that they want to resolve. There is considerable evidence that a well-coordinated communication strategy can enhance learning (knowledge), attitude, and practice changes by rural families. There is also good evidence that by working without such a strategy much effort becomes less efficient, less effective, more costly, and the results are not as good.

MFM's communication strategy corresponds almost directly with its extension strategy. That is, it combines two elements of direct one-on-one discussion and demonstration with credit. MFM technicians make assessments on the spot as to the knowledge, attitude, and practice levels of each farmer and adjust their discussion and demonstration for each individual farmer. Since they have only basic preconceived notions as to what farmers need they are able to listen carefully to their problems, observe their situation at that moment, and shift discussion and recommendations to their immediate needs.

In the rural infrastructure program this communication strategy is even more concerned with getting at the farmers' interest. MFM technicians spend days learning about new employment opportunities farmers would want to get involved in as an alternative to farming. They follow almost completely the direction given by the farmers. Once a farmer comes up with an alternative, MFM will continue discussion until a consensus is reached. Then MFM provides credit and back-up. It is a slow but necessary process so that farmers realize that MFM is not pushing a certain kind of employment activity.

The nutrition education program uses a combination of discussion, charts, weighing scale, to present its message. This communication strategy assumes that by using discussion there will be knowledge attitude, and practice changes. In three communities there is the encouragement of community vegetable gardens so that recommended foods to change diets may be available at no additional cost.

In all four areas of concentration their communication strategies are less than complete systems. Well-tested result oriented communication strategies are almost completely absent from the MFM program. Yet communication research demonstrates that combined and integrative communication strategies are much more effective in changing knowledge, attitudes, and behavior of its participants.

In order to get at farmers communication needs it is necessary that MFM conduct preliminary research with the rural communities. They could not change their present system until this is done, nor should they start a new system simply because its new or because it represents more technology. The problems and basic needs come first and then the communication strategy to apply to those basic needs.

D. Education and Teaching Techniques

Development of human resources is normally an accelerator for rural development and is usually taking place outside the formal educational system and the classroom. It involves both skill training and "learning to learn" or education for self-reliance. An educational strategy ought to support other extension activities and assist in promoting sub projects.

The nutrition education project uses teaching as a major instrument for getting across its program objectives. A fairly good curriculum has been devised that is sequential through different nutrition and health themes. It is geared to the

different audiences of young and older mothers. There is also a good monthly schedule used for having regular classes. These classes are held at the social security dispensary and the primary schools in those eight communities where the program operates. Techniques used are quite traditional and follow similiar teaching methods used in primary education. This includes a structured lecture, classroom type questioning, and treating the learners as recipients of information. There could be more discussion, participation, group work, searching for answers themselves, or combining learning with action.

In the other three sub-projects (horticulture, poultry raising, rural infrastructure) the emphasis is on immediate skills needed to get a certain task performed. Teaching is one-on-one with a combination of discussion, questions, problem solving, and geared to participant needs. It is actually more relevant and effective than nutrition education.

MFM could begin to explore other techniques for education and teaching. They could begin to provide education for self-reliance and broad self-help training.

E. Program Integration

Integration, defined by Coombs*, is "combining naturally related parts into a more cohesive and unified whole in order to enhance their collective cost-effectiveness." It requires that there is a "system" of related components: functions are well-organized; and that all components are present so that there is not an incomplete system. Integration is not an all-or-none affair. It is a matter of degree. It involves a step by step evolutionary process. Integration starts small and then broadens wider to other areas of activities. It is highly pragmatic and responds to opportunities.

Obstacles to integration normally do not take place at the village level. Rather the failure to integrate is within the organization itself and with the bureaucracies and specialists. Another obstacle is centralization whereby power and decisions are made at a central level. Generally there is much more integration by different institutions at local levels than at the central level.

There are five general areas of integration. After defining these concepts, MFM's levels of integration is assessed.

* See Phillip Coombs, Meeting the Basic Needs of the Rural Poor, Pergamon Press, 1980.

1. Integrated National Planning for Rural Development

This concept relates to national level planning and integration. MFM normally is not at this level but certainly feels the impact of any governmental decisions and the general milieu of the country.

Starting in 1954 the Junta Nacional de Planificación (Junapla) established its first integrated plan for rural development. It was an effort to coordinate and integrate the work of agrarian reform, colonization, extension, and health services. Regional development organizations were also created. Its problem was that it was an incomplete system. The plan stressed a "unified nation" approach in a so-called "social pact" in which rural and urban society would be unified symbolically, at the expense of cultural and social values held by rural families and indigenous groups. There was much more concern with pacification and socialization than with rural integral development.

Through the 1960's and 1970's JUNAPLA pretty much followed this same philosophy and approach. Services to rural areas expanded and increased in roads, health centers, schools, rural electrification, land reform, but there never was any integration to any great degree.

In 1980, with the new Roldós-Hurtado administration, a new institution SEDRI (Secretaría de Desarrollo Rural Integral) Secretary for Rural Integral Development, was created under the Presidency. Seventeen rural development projects have been planned in different regions of the country; eight have already started. One of these rural integral development projects in an area around Daule, with 50,000 target population, only 50 kilometers across the Chongón and Colonche mountain ranges from the Santa Elena Península. While still too early to assess SEDRI's new strategies, they look promising.

2. Integration of Essential Components of a Particular Program

This integration relates to internal integration within a given area of concentration. While MFM attempts to integrate each sub-program it could do more.
First, in its concentration areas are missing components so that the system does not function completely in order. In the horticulture project, for example, it lacks essential components of education, information diffusion, communication strategy and specific objectives.* The same is true for

*A good education strategy would contain sequential learning schemes, defined curriculums, workshops, seminars, courses, A-V materials, and practice. These would all be combined and related together in a cohesive training program.

the nutrition program. Poultry raising and rural infrastructure projects have much better internal integration.

3. Integration of Related Activities of Separate Program

This integration relates to integrating agriculture, nutrition education, poultry raising, and rural infrastructure. This functions moderately well but requires much more attention to be effective. A major obstacle here is vacillating back and forth between emphasis on the individual and the family. MFM should be concerned with the development of the entire family. Sometimes the technicians forgot their level of action.

A second problem area is the lack of support that each sub component can give to each other. At times each sub-project appears to be separate. Even villagers, taking their cues from MFM technicians, emphasize "that program" and "this program" while all are MFM integral development programs.

4. Horizontal and Vertical Integration

Horizontal integration ties together people at the individual community level certain closely related activities that deal with basic family needs and interests. Vertical integration relates to the development organization relationship to the community in its efforts to provide selective help from outside the village.

MFM provides excellent "self-help" and "participatory" approaches that assure excellent vertical integration relationship with 15 communities. When possible, they motivate villagers to maintain good horizontal integration also.

5. Integration of Efforts by Separate Organizations

This is integration and close collaboration between separate public and private organizations that are normally working independently. MFM has been a leader in attempting to get public and private organizations to integrate their work on the Península. They helped establish the slow moving inter-institutional organization committee. They collaborate well with the Ministry of Agriculture, IEOS, INERHI, Ministry of Education, and CESA.

F. Community Participation

MFM states that "self-help" and "participation" are indispensable to the long sustained transformation of a rural society. This task is much more difficult to achieve than normally stated. If this is a central goal there ought to be some plan to assure that it takes place. MFM has done a relatively good job of avoiding most pitfalls made by an outside organization working with rural communities.

There are different forms of community participation. We have already analyzed that MFM does not get communities involved in final steps of program planning. Yet there are other forms of participation. Across a wide spectrum communities could be negative to project initiatives or on the other side is the village that has organized itself, mobilized resources, made decisions and plans, and sought outside help on its own. Almost all of the 15 communities fall within the 75-85% percentile on the positive side of the spectrum. Much of this has been at the inspiration and assistance of MFM.

There are different types and forms of community participation found in the project area.

1. Local Catalysts and Advisors

Several "graduates" and "progressive" small scale farmers assist their neighbors with some backstopping from MFM. The concept of the "multiplier effect" is taking place slowly.

2. Community contributions of money and labor and materials

All communities support their projects well with all three inputs of money, labor and materials. Four schools, one dispensary, water wells, community gardens have all been made through their self-help. MFM requires, and communities accept, strict prerequisite requirements to receive credit.

3. Community organization

All communities have some kind of community organizations. Some are more advanced than others.

Over 10 years on the Peninsula MFM has gotten excellent support and participation by the communities. Unlike other groups, they have met relatively minor resistence. It is through their patience, understanding the people's needs, concern, and taking positive use of the communities assets

that they have done so well. They have never tried to get all the community involved but rather only those who demonstrate interest.

VI. IMPACT AND LESSONS LEARNED

MFM activities are geared to have impact-positive results, changes, increased income, and better lives. While process is important and is in itself impact, the normal goal is to achieve some kind of social and economic advantage for the poor people of the region.

At the same time MFM has learned many lessons and has had many unplanned effects. Some are positive and others are negative. Yet they provide valuable lessons as to what one might expect from a rural integral development program

A. Project Impact

A review of each project is made in the following categories:

Activities. These are the project activities that are to create or produce certain results, practices, or impacts. MFM has its overall program and four sub-projects.

Economic Benefits. MFM has projects that are to produce economic benefits for small scale farmers. We have identified these benefits in the following charts.

Noneconomic Benefits. Not all benefits are economic. There are so-called 'social indicators' that may be as important or more important than economic benefits.

Lessons Learned/Unplanned Effects. Each project has lessons it has learned as well as unplanned effects (positive and negative) that have occurred.

The following charts can be viewed as the results accomplished as of mid-1982.*

---

* This section and Section VII had input from the farm families and the communities themselves. This writer visited all 15 communities and held discussions with over 50 farmers, at least 15 poultry raisers, and 30-40 women in nutrition education programs. They provided a lot of the information about impact and lessons learned. They also made a lot of recommendations for their friends of MFM about how they could better the program. It is interesting to note that the families' frankness and openness to discuss and recommend is in itself and indicator of MFM's overall impact in those communities. Their specific recommendations should be taken to heart as they represent some "basic needs" that these communities have identified.

OVERALL INSTITUTION IMPACT

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED/UNPLANN EFFECTS
• Assists rural communities organize projects and assess the help needed from government sources.	• 10-20% increase income for 23 poultry raising farmers in 1982, above 1981.	• Social organization of 15 rural communities including some 'graduates' so that they can plan community development.	• Institutions must be willing change at the same time tha produces change.
• Conducts innovative small-scale experiments from which large organizations can learn.	• 20-25% increase income for 53 horticulture farmers in 1982, above 1981, under serious drought conditions since 1976.	• Learning to learn concept prevalent in most of 60 farmers so that can continue to grow on own.	• Failure of one project or on director does not mean failure of the whole program
• Serves as liasion between the community and various government agencies.	• 30% increase by cottage baking owners	• Widespread use of recommended fertilizers, seeds, insecticides by 90% of farmers reached in program.	• Low key operation with reliable support to its clients is superior to flashy and high publicity programs.
• Provides technical services in horticultural to 70 farmers in ten communities: 23 poultry raisers in 7 towns; nutrition education programs in 7 comminuties.	• Construction of schools and dispensaries built by the communities.	• Good business and management practices by poultry farmers.	• Important for small PVO programs to have well-estab methodologies before expand ing. Expansion must be slow so as not to lose high standa of excellence.
• Provides credit rotation program to 43 farmers and 3 communities.	• Increase consumption of nutritious foods, though not necessarily purchased.	• Positive and progressive attitude by 70% of farmers in program toward modern agriculture.	• MFM provides excellent alternative and pressure on MAG to change. MFM about 30% more effect than MAG.
	• Increase of expenditures on home improvements that result in capital goods.		• Credit is sin gle most farme need from outside. Handled responsibly, it is a celerator for development.
			• Alternative rural economic projects can be beneficial to target audiences looking for income producing jobs in ru areas.

IMPACT OF HORTICULTURE PROJECT

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED/UNPLANNED EFFECTS
• TA to 70 rural families in ten communities. • Three community gardens established in three communities with 25 women. • 150 visits to rural villages about 25 average each village per year. • On the spot direct technical assistance to these 70 farmers in the field. • Liaison with 4 commercial distributers in Santa Elena to provide seeds, fertilizers, and insecticides. • Meetings with MAG to start collaboration in soil conservation and foresty programs.	• 105 hectares under production with tomatoes, onions, peppers, cucumbers melons and watermelons. Tomatoes: 63 hectares X S/. 180 per carton per 1,500 cartons = S/.1,701,000 Peppers: 26 hectares X S/. 400 per sack x 400 sacks per hectare = S/. 4,160,000 Cucumbers: 5 hectares x S/. 15 per dozen x 3,000 dozens per hectare = S/. 225,000 Melons: 4 hectares x S/. 12 per melon x 30,000 per hectare = S/. 1,440,000 Watermelons: 5 hectares x S/. 40 per watermelon x 4,000 watermelons per hectare = S/. 800,000 Onions: 2 hectares x S/. 300 per quintal x 300 quintales per hectare = S/. 180.000 S/. 8,506,000 • Each farmer earns roughly S/. 56,00 yearly from agriculture plus vegetables consumed at home; a value of another S/. 10,000 per year.	• Increase roughly 10% consumption of vegetables grown before selling to market. • Increase use of fertilizers, insecticides, better seeds to assist in take off as progressive farmers. • Established farmers association of 60 farmers in rural communities.	• 10% farmers are "graduate of program and no longer require technical assistanc • 8 - 10 farmers are catalys and contact other new farmers. • Farmers association must be watched closely at begin ning to assure that all agre on goals and objectives. • MAG got interested in soil conservation with MFM • Reforestation of Peninsula received push from MFM • Progressive farmers most likely will take advantage of services first and will assist laggard and poor farmers to follow suit after demonstrated positive resu

IMPACT POULTRY RAISING PROJECT

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED /UNPLANNED EFFECTS
• 23 farm families raise 4,000 poultry per cycle or estimated 20,000 poultry per year. • Families receive bi-weekly visits, inspection from MFM extension worker. • Veterinarian visits each family at least once each cycle to check on poultry health and demonstrate vaccinces. • MFM provides credit for purchase of troughs, chicks, balanced food, medicines, vaccinations. Paid back after sale of poultry after 8 weeks. • MFM liasion with commercial markets to purchase chicks and sell mature poultry for sale in open market.	• 23 families earn S/ 65,525 yearly each average from poultry production. • 23 families consume 100 lbs of chickens per year each in addition to sales. • 23 families have capital investments worth S/ 15,000 as result of project. • Four distributors in Santa Elena sell S/ 391,000 average goods each two months cycle. • Commercial agents purchase S/ 21,600,000 worth poultry 20,000 chickens per year, from farmers, and in town sell at 10-15% profit. • Consumer purchases 20,000 poultry per year containing good nutrition.	• Farmers learn new rural employment activity not known in rural areas. • Farmers learn management skills, business know-how, marketing. • Farmers learn organization and discipline. Learn new skills of vaccines, medicines, balanced food, etc. that will transfer to other products. • New commercial distribution in Santa Elena because of program for both horticulture and poultry program.	• Idea for poultry farming started by farmers and MFM together. Both had to learn together. Demonstrated that development organization vulnerable to farmers in learning and also could start something new. • Poultry raising is viable if a economy of scale is used. Need minimum of 300 chicks to made it work. • Poultry raising has brought MFM and farmers together to try some new and alternative rural economic project.

NUTRITION EDUCATION PROJECT

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED/UNPLANNED EFFECTS
• 168 adults (parents and teenage girls enrolled in applied nutrition classes including nutrition education, pre-natal assistance, post natal control, family planning, health in 7 communities. • 114 children 0-5 years old in size and weight control at 5 communities in 4 seguro social campesino dispensaries. • Roughly 120 applied nutrition talks given at 7 communities per year. • Three community vegetable gardens established with 25 women participating.	• No measurable economic benefits because program at various stages of development in each community. Recent surge enrollments only since Feb. 1982 • Doubtful economic results of talks as most likely not leading to knowledge, attitude, and practice changes in any significant number. • Children weights and sizes results show considerable levels of I and II malnutrition, but no evidence that changes are being made by families to assist their children. • Community gardens producing some vegetables to date though this will most likely improve in 1982-83.	• Respectability of parent to get medical attention for children. • Positive attitude rural communities to receive applied nutrition program from private institution. • Excellent collaboration and support MAG and SSC in this program. • Heightened awareness though no necessary actions, about their ignorance of health and nutrition matters. • Apparent awareness relationship of health, nutrition, child care, to prevent illness and death. • Social relationships among rural women heightened by this program. • Confidence with housewives and farmers concerning discussions of their health situation.	• Eagerness of parents to weig children demonstrated by ease to get enrollments. • Need to get community leade ship support for ANP before beginning to assure that community understands program well. • Discussions not enough in themselves, but rather must be coordinated with demonstr tions, follow-ups, and action programs. • Nutrition education programs must be planned, coordinated practical, action oriented, and combine pedagogical procedures in order to be effective.

RURAL INFRASTRUCTURE PROJECT

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED/UNPLANNED EFFECTS
• Provide line of credit to rural people or groups starting rural infrastructure projects. • Provide on site inspection of needs for project and credit. • Provide technical assistance to rural families working to start rural infrastructure projects. • Outputs 1. Bakery project in Sinchal 2. Community water pumps in Olón 3. Solar stove for Ministry of Education in Santa Elena 4. Tractor and farm implements for farmers association and about 30 farmers.	• Tractor has cultivated over 200 hectares in the 15 communities. • Bakery supports 2 families incomes in Sinchal. 5 other families have started bakeries. • Water pump used initially to support small cottage industry in small towns. • Economic benefits to individual projects.	• Positive perception created that with rotating credit rural families can begin new rural infrastructure projects. • Positive attitudes toward staying on farm and looking for solutions in addition to farming.	• Credit is a key factor in rural development. Families do not require donation: simply credit. • Farmers will definitely repay credit on time as required by private development organization. • System of request, inspection, credit follow-up, repayment works very well in rural community development program. • Alternative rural economic projects can be beneficial to target audiences looking for income-producing jobs in rural areas.

SMALL GRANT /CREDIT ROTATION

ACTIVITIES	ECONOMIC BENEFITS	NONECONOMIC BENEFITS	LESSONS LEARNED/UNPLAN EFFECTS
• Lines of credit of about US$ 12,000 alloted to MFM. In 1981, rotating credit S/ 560,000, and to June, 1982 460,000. All money on credit and bought capital goods. • Credit provided to 20 horticulture farmers and 23 poultry raising farmers. • 5 rural infrastructure projects sponsored with lines of credit.	• 20 horticulture farms with credit line assistance produced roughly S/ 2,285,740 profit of vegetables in 1982. • 23 poultry raisers earned S/ 65,000 income for family in new economic activity. • 5 new project in rural infrastructure.	• Credit gives courage, inspiration, willingness to keep working. Helps farmers move into becoming progressive farmers. • Credit opens up vision and opportunities for farmers to engage in non-agricultural activities. • Credit provides opportunity to use modern fertilizers, pesticides to get better yields per hectare.	• Credit is major accelerato development and desperate needed by farmers. • Credit opened up MFM as d ferent kind of private devel ment organization that not only provides technical assistance. • System of request for servi and credit, inspection, cred follow-up, and repayment o line of credit works well in community rural developme programs.

Horticulture Economic Sheet

Gross Earnings

Product	No. Hectares	Price per Product	Yield	Earnings
Tomatoes	63	S/ 180 per carton	1,500 per hectare	S/ 1,701,000
Peppers	26	S/1,400 per sack	400 sacks/hectare	4,160,000
Cucumbers	5	S/ 15 per dozen	3,000 doz/hectare	225,000
Melons	4	S/ 12 each	30,000 per/hectare	1,440,000
Watermelons	5	S/ 40 each	4,000 per/hectare	800,000
Onions	2	3,000 per 100 lb sack		180,000
				S/ 8,506,000

Costs

Total seeds, water, fertilizers, pesticides, land clearing, day labors, transportation estimated by MFM to be S/ 50,000 per hectare.

Excludes labor of project families S/ 50,000 x 105 hectares S/ 5,250,000

(90%)

NET EARNING S/ 3,256,000

70 rural families in project

Net earning per family per year S/46,514.00

Estimated home consumption is S/ 10,000 per year S/ 10,000.00

Total real earning per family S/ 56,514.00

POULTRY RAISING ECONOMIC SHEET

Cost

300 chicks at S/ 12	S/	3,600
20 sacks of balanced food at S/ 470 per sack		9,400
Medications per 300 chicks		2,000
Miscellaneous		1,000
Pen, feed troughs mortgaged out over 5 year period		1,000
	S/	17,000
300 chicks bought		300
10% chicks lost by death and home consumption		30
		270

Earnings

270 chickens sold at S/ 25 per Lb. x 4.3 Lbs average	S/	29,035
Costs		17,000
	S/	12,025

Gestation period is eight weeks

Farmers have 5 cycles of chickens

per year S/ 12,025 x 5 = S/ 60,125 per year

Home consumption of 25 chickens at S/ 108		2,700
Neighborhood sales or contribution 25 chickens at S/ 108		2,700
Real earnings per year	S/	65,525

MFM ACTIVITIES

MFM activities are essential to make some impact. While not impact or results in themselves, as is sometimes commonly assumed, these activities lead to possible results. Yet the magnitude of these activities is quite impressive. Taken as a whole, MFM/Ecuador is carrying on a regular visitation program, nutrition education, and a regular rotating credit program.

Economic Benefits

Under the circumstances of 1982 with a drought condition and low prices for agricultural products, the economic benefits for farmers is quite good. There was considerable increase of agricultural production, despite low prices, with resulting good levels of disposable income. By all accounts farmers state that 1982 is much better than 1981, and they are optimistic that 1983 will be better than 1982. This general optimism is remarkable because Ecuador is in an economic recession in mid-1982.

Change is constantly taking place in every society and community. We have to question to what extent these economic benefits resulted from the MFM program from those that would have occurred anyway. Lacking baseline data or a control group it is difficult to reach logical conclusions on the results of the program. The best alternative was to interview project participants and other comparable farmers next door. This was easy to do because MFM only works with about 25% of the target population and they farm and live next to each other. Our rough comparisons of economic benefits had the following conclusions:

- Project farmers have 10-20% higher yields of crops per hectare than non-participants.
- Project farmers and poultry raisers have about 20% higher disposable incomes than non-participants.
- Project farmers and families had make considerable more investments in their homes and capital goods (floors, roofs, television, latrines, etc.) demonstrating an increase in overall economic betterment than their non-participating farmers.

These conclusions suggest that MFM does assist in creating economic benefits. It is interesting to note that about one-half of the so-called 'control' farmers receive technical assistance from the Ministry of Agriculture and another private development organization.

Another type of analysis is to determine the relative contribution of different activities to the results obtained. It is difficult to get a precise measurement of this but the following statements reflect from our discussions in the region:

- MFM technical assistance is roughly 20-30% more consistant, reliable , honest, humanistic, and available than other technical assistance organizations;

- MFM line of credit, however minimal, is a major factor in farmers willingness to take risks. It must be considered a major factor in affecting change in production.

Noneconomic Benefits

Noneconomic benefits relate to other than economic benefits that can be attributed to the projects. As the charts indicate there are considerable social, cultural, education benefits that have occurred. Some of these may be related to economic benefits at a later date. Using the same methodology described above, it is possible to determine noneconomic benefits, as follows:

- Project participants tend to look more for their own solutions to problems and become more self-reliant.

- Project participants have more desire to "learn to learn" than non-participants.

- Project participants look for opportunities and have more access to outside sources than non-participants.

- Project participants have more positive and progressive attitudes toward modern agriculture than non-participants.

- Over 90% of project participants use recommended fertilizers, seeds, insecticides, land management compared to only about 40% of non-participants.

Overall, most impacts can be seen and measured in the horticulture program and poultry raising program, while less in the nutrition education program. The rural infrastructure program appears to be promising and we would expect benefits in the next 2 - 3 years. The Small Grant Project is an excellent vehicle for supporting these other projects.

B. Community Impact

Meals for Millions has assisted in affecting impact in the 15 communities where it operates. This is readily and openly stated by community leaders of those communities. While at times difficult to measure that impact over a long term, community leaders and farmers gave positive evidence that MFM has provided assistance that has led to certain changes. It is possible to gauge certain advantages in communities where MFM works compared to other communities. There are also testimonies that MFM communities are certainly different; not dramatically so, but different.

We have attempted to assess this impact, however secondary, by comparing the difference in project communities between 1973 and 1982, when MFM began and the present situation in those fifteen communities. While not an exact measure, it gives an indication of changes that have taken place and possibly some indication of MFM's role in affecting those changes. A composite picture is provided although there are obvious variations from community to community. After visiting the fifteen communities we believe that they are homogeneous enough to make this composite picture.

IMPACT MFM COMMUNITIES 1973 - 1982

ORGANIZATION	1973	1982
ORGANIZATION	Two of fifteen communities organized in any fashion. Most inactive and basically disorganized.	8 precooperative of farmers, committee of farmers. 12 mothers clubs Farmers Association of Santa Elena organized; all comunas are organized and have elected officials.
INFRASTRUCTURE	Three communites on major coastal road; other 12 communities basically inaccessible except through seasonal roads; 8 communities only accessibility a 4-8 km walk	All fifteen communities accessible by good road; five by paved roads and other 10 by good seasonal roads
TRANSPORTATION TO SITE	Five had regular transportation system with buses or trucks; other 10 had boat or foot, one daily charcoal vehicle, one lumber truck, or local truck	Regular bus service in each community or regular truck daily to Santa Elena or La Libertad. Excellent transportation along coastal road Olón to Santa Elena.
HOUSING	Almost 95% homes bamboo and wood combination; 5% latrines. Almost all on stilts; those on ground have ground floors	65% bamboo and 35% cement block; new structures that show positive use of environment. 15-20% latrines in fifteen villages. New bamboo structures on ground and with wooden floors
INSTITUTIONS IN REGION	Banco Nacional de Fomento with credit; Municipality of Santa Elena; INERHI in some communities. Outreach to fifteen communities minimal	Banco Nacional de Fomento; Ministry of Agriculture; CESA; FEPP; CEDEGE; IEOS; Seguro Social Campesino; INERHI; MFM all provide some kinds of services to fifteen communities. MFM has had influence on them providing services
AGRICULTURAL PRACTICES	Very traditional hoe and machete operation; no use of chemicals or fertilizers; low knowledge of modern farming practices	Trained in use of modern technical equipment. They now use fertilizers, pesticides, and credit for agricultural development. Widespread knowledge and awareness of modern agricultural practices and confidence to discuss modern agriculture.

HECTARES UNDER CULTIVATION	250 hectares under cultivation with vegetable production, corn, using water well	105 hectares under cultivation from 61 project farmers. Most likely another 200 hectares under permanent cultivation by other farmers, including medium-scale farmers. Drought conditions cut severely into number of hectares under cultivation.
ELECTRICITY	5 of fifteen communities with electricity	13 of fifteen communities with electricity
PERSONAL LUXUARY ITEMS	30% with radios; some refrigerators in communities with electricity; wood stoves	95% radios; about 15% television; electric generators; water pumps; sewing machines; record players; abundant motorscooters; a few cars
HEALTH SERVICES	Five health centers in fifteen communities, but these are largest towns on main road; doctors available sporatically; nurses available but not stationed in health centers and attended only part-time	Ten dispensaries or sub-health centers; one modern hospital in Manglaralto; three doctors permanently serve hospital and health centers: nurses full-time at health centers and hospital; still heavy absenteeism from the health centers; still little outreach into rural communities
WATER SERVICES AND IRRIGATION	90% water taken from rivers; some village water pumps	Community water pumps in each community but go dry frequently; water trucked in to community cisterns; about 50% of project families have their own water wells and pumps Still very desperate situation and perhaps even worse than in 1973 because of drought Several community dams and large regional San Vicente Dam being completed by INERHI
COMMUNITY ATTITUDE TOWARD SELF	50% basically optimistic and feel good about situation; other 50% indifferent or pessimistic about selves and community	Major transformations in the community even despite present serious drought condition; general feeling of project community members that they can control their lives

C. Lessons Learned

Many lessons have been learned (positive and negative) from this project and this case study. They ought to be shared with colleagues and other development agencies. We outlined those lessons learned in the charts above but now provide more specific detail.

The lessons learned are the following:

- Institutions must be willing to change at the same time that it produces change

  MFM started as a basic food-feeding program and also introduced a new product (soybeans) with the food feeding program in Ecuador. Both most likely were acceptable at their inception. Yet Ecuador matured and went beyond those needs. MFM changed its philosophy from a basic relief organizations to rural integral development or applied nutrition program. It learned well to adjust itself to new realities. It also learned well that if it expected farmers and rural communities to change, it also must be willing to change itself.

- Failure of one project or director does not mean failure of whole program

  The soybean project was essentially a failure; as well as the leadership of one director. A strong and creative organization accepts failure as a normal process. It learns from its mistakes and continues to grow. MFM has done this well. Rather than be defeated by mistakes, it has grown because of the mistakes.

- Low key operation is better than high publicity programs

  MFM has demonstrated, through experience, that low key operations offer more to its clients over the long run than flashy or highly publicized development programs. Some times high publicity programs get credit from acknowledged national or international groups but do not make impacts into the communities. MFM demonstrates just the opposite: not much recognition but many contributions.

- PVO programs need well-established methodologies before expanding. Expansion must be slow to maintain excellence

MFM expanded into nutrition education without the sufficient conceptual framework, methodologies, techniques, nor strategies planned. They are now suffering from not having a well-organized program. Their expansion into new towns is premature. They have to back-up, get themselves quality programs in 6-7 communities, and then expand slowly to other communities.

- PVO provides alternatives and puts some lobbying on public institutions to change

The flexible and adaptable nature of small private develpment organizations permits them to provide experimental alternatives to well-entrenched public institutions involved in rural integral development. MFM has demonstrated some new techniques that are forcing public institutions to change and also to begin to provide services in rural areas themselves.

- Rotating credit is excellent accelerator for rural development

MFM has demonstrated that, handled well, rotating credit at no interest rate has a positive effect on rural agricultural projects and other rural employment projects. While this is not new, MFM has demonstrated again the positive effects of credit for farmers and also a demonstration for public institutions who fail and fear providing this service to small scale farmers.

- Farmers can graduate from technical assistance and become catalyst and contact for other farmers

MFM has trained many farmers who have now graduated to progressive farmers. They now become catalyst and contact other farmers. This is an excellent multiplier effect for modern agricultural development.

- Private development organizations can be experimental and stimulate public institutions to get involved in new programs

MFM has interested Ministry of Agriculture to get involved with soil conservation and reforestation in the Santa Elena Peninsula. They have also helped push the Ministry of Health, INERHI, IEOS, and Seguro Social Campesino to start new projects in the Peninsula. Their experimentation with new and alternative appropriate technology has stimulated the

the Ministry of Education to try new development activities. With proper relationships they can have a positive effect in rural development.

- Private development organizations can learn along with target groups together making each vulnerable and responsible to the other

MFM has learned that they can start a new project without prior experience. They rely on common sense, responsibility, and their tested methodologies. They do not have to be the "expert", but rather explain to their groups what they know and their willingness to help. Target groups normally accept this relationship and it can be positive for both parties.

- Alternative rural economic projects can be beneficial to target audiences looking for income-producing jobs in rural areas

MFM has learned that they can and should be interested in helping to develop alternatives to agriculture in rural areas. This does not necessarily detract from their main purpose of applied nutrition and also is a moral necessity in drought areas.

- Well-coordinated and modern extension and visitation systems as well as communication strategies are required to provide the most effective and efficient technical assistance to small-scale farmers

MFM does not provide these practices but is learning that they can be much more effective by applying modern practices of extension and communication strategies. Haphazard extension techniques are not viable for rural integral development project. Private development organizations must go beyond the tradition "do-good" approach as if that were sufficient enough to create changes.

- System of request for services and credit, inspection, credit follow-up, and repayment of line of credit works very well in community rural development programs

MFM has developed an excellent rotating credit system. The model works very well and can be emulated elsewhere. By placing minimal requirements on the farmers there is the initial commitment by the rural farmer. Then MFM inspects

the initial work and prescribes credit. Follow-up inspections and technical assistance are made. Finally, credit is repaid on time; mostly because of mutual trust between MFM and the farmer.

- Nutrition education programs must be planned, coordinated, sequential, practical, action-oriented, and combine several pedagogical procedures in order to be effective

MFM realizes its inefficiencies in presenting a viable nutrition education program. It jumped into nutrition education without a solid base of understanding or planning and must start again from scratch to design a viable program. By learning from its mistakes it can now begin to fill in the gaps that are missing.

- Integration is hard to achieve and requires constant effort to assure that all sub-programs are well-coordinated and support each other

MFM does not have full integration of its sub-programs as they are dispersed and not coordinated.

They realize that integration requires a well-balanced approach to rural integral development that focuses on common specific objectives.

- Community participation means community involvement but not necessarily their involvement in every step of planning and execution. The private development organization can and should make supportive decisions for the community

MFM has learned through experimentation and practice that a full-fledged community participation takes on different forms. First, it does not require necessarily that the community be organized into cooperatives, community-based organizations, or production systems. Second, their participation with the community does not have to include the whole community. Some community members simply choose not to participate. Others have personal, social, and even political antagonisms with other members of the community. Third, the community does not have to be in on every decision that is made. The development organization can make some supportive decisions for the community. Communities provide general consensus about decisions, but the private development organization carries out the specific implementation based on that general consensus.

- Progressive farmers most likely will take advantage of services first and will assist laggard and poor farmers to follow suit after demonstrated positive results

This lesson is well-known in the development literature. Progressive farmers will take the lead and bring along laggard poor farmers after they see the positive results of new innovations. MFM has learned to use this principale well, not always working with the poorest of the poorest first, but rather to take advantage of working with progressive farmers who in turn can demonstrate to poorer and less innovative farmers.

- Educational components as an accelerator of development are for the most part overlooked and not given importance, creating less than effective means of transmitting information to the farmers and rural families

MFM realizes that it must upgrade its educational components in order to accelerate the process of rural development. Information is lost or the impact of their extension work is less effective because they do not present information in a meaningful way. They need to upgrade education through coordinated educational efforts.

- MFM can be assertive in helping larger scale government programs to serve more people more effectively at affordable costs

MFM has played a role in supporting the larger scale government programs. It has kept its obligation as a development organization to lobby for and put pressure on the government to fulfill better services for rural people. It has also played an effective role in supporting and advocating larger scale programs such as construction of dams, water projects, government literacy programs that include agricultural and rural developments themes, health center programs, and cooperate more to assure that the Ministry of Agriculture extension program functions more effectively.

Related to the above, MFM has a good vision of its role and the projects that are needed in the Península. The Península requires large scale water projects, better agricultural marketing systems, more employment opportunities with medium-scale industries, and better financial resources in the Península. These four accelerators of development are part of the vision and objectives of the MFM program. MFM has learned that while it should not abandon its emphasis on short term projects for the small-scale farmer, it must also advocate and promote a long term development effort for the Península.

Even though MFM has limited financial resources it can have exponential impacts and service through advocating and promoting government services in the Península. It cannot provide those services itself with its present budget, but it can lobby, coordinate, integrate, and otherwise begin to strengthen inter-institutional commissions to support larger scale projects that will assist the target audiences over the long term.

- <u>The organization uses zero-based budgeting procedure and thus has an organization set-up efficient and effective to meet its specific program objectives</u>

MFM has done well in establishing specific outputs for a given year and over a three year period. It has also planned well the activities that will produce the outputs. In a logical fashion, using zero-based budget principles, it has then calculated the inputs (personnel, travel, transportation, administration, supplies, equipment) required to complete those activities in order to get the desired outcomes. As a result, the organization is quite cost efficient.

This section has reviewed the impacts and lessons learned of the MFM program in Ecuador. Next is an analysis of positive and negative factors affecting MFM's program and recommendations for alleviating barriers and enhancing its effectiveness.

VII. RECOMMENDATIONS

Recommendations flow or emerge from the analysis and are not simply isolated or invented by the writer. It is the obvious responsibility of the analyst to conduct appropriate assessments that permit recommendations to emerge from the analysis.

Generally speaking, positive factors enhancing or contributing to project effectiveness are in good shape. There are enough positive factors in the program to warrant continuation in its present format. Indeed it is one of the better private development organization projects observed in recent years.

Negative factors inhibiting or creating barriers are not serious. Source of water will continue to plague the project for the foreseeable future. It is ingrained in the population as a very serious hindrance to development and has most people fearful of relative major breakthroughs in the near future. If one drives only a short distance of 200 kilometers (120 miles) due east and sees the fertile lands and abundant water supplies in the Guayas River Basin, one is struck by the drastic changes and possibilities in agricultural with abundant sources of water. Since Meals for Millions chooses to remain in the Península, it must learn to cope with this major barrier.

A. Broad Recommendations

Recommendations flow from the analysis and are not handled lightly. They represent a careful assessment of guidelines that will enhance the MFM program in Ecuador. Throughout this assessment we have been discussing with the MFM staff certain alternatives and realities that could possibly occur as a result of our diagnosis. Therefore, the recommendations made here are with colleagues and are will-known to them.

There are four broad areas of recommendations we are making. The four broad recommendations are in the following areas:

1. Program Planning

2. Information Diffusion

3. Extension, Educational, and Communication Strategies

4. Broad Approach to Rural Integral Development

These recommendations can be achieved through self-study, training, extra effort by the MFM staff, MFM headquarter staff orientation, discussion, and practice.

1. Program Planning

MFM/Ecuador requires a serious review of its program in terms of a logical framework. Although one page logical framework does exist, and is good, it still is insufficient to assure that specific activities will lead to quantifiable and measureable project outputs. The document itself is not important but rather the planning and thinking that should go into planning out activities. The three MFM field staff members need to seriously consider what they are doing and why. They need to have mind-set that demonstrates that their very specific activities are leading to measureable outputs. This mind-set will set the stage for planning and executing the next two issues of information diffusion and extension strategies.

Program planning must be accomplished by all three MFM/Ecuador technicians under the leadership of MFM headquarters. MFM itself must practice self-help and participatory approaches in its own project planning. Exercises of program planning by staff members will go a long way toward solidifying and assuring proper program implementation. Again, the process of program planning is much more important than any published document.

2. Information Diffusion

This revitalized program plan should have an increased effort to diffuse information to its clients, public sector officials, and other development agencies and individuals. MFM has the personnel and experimental opportunities to provide vital and practical information that can be an accelerator of development in the Península and in Ecuador. This is not done for publicity sake or public recognition, but rather as an obligation to provide the full breath of information at its disposal to its clients and colleagues.

MFM should publish pamphlets on agricultural production themes, rural development opportunities, prices, recommended practices, regional development schemes and plans, innovations in agricultural production, as well as MFM procedures in credit rotation and services.

MFM should also begin to explore and implement mass media approaches for information diffusion. This includes posters,

rural mural newspapers, slides, cassettes, reminder materials (hand-outs), charts, and photographs. It ought to begin a public radio education program that is well-coordinated and sequential. These activities should be coordinated in the extension strategies elaborated on below.

Finally, MFM must begin to hold informal and formal meetings with private and public sector officials concerning development issues facing the Península and MFM's role in that effort. It has an obligation to provide information about the experimental and innovative approaches it is using so as to train and influence larger scale government projects in ways that better the lives of the small scale farmers in the Península. In addition, it must take a lead in explaining its extension system to influence public policy in the Guayas Province and even perhaps at the national level. Again, the purpose is not self-gratification or publicity but rather service to the poor people in the region.

3. Extension, Education, and Communication Strategies

MFM requires a serious review and upgrading of its present extension, education, and communication strategy for affecting change and bettering the lives of small-scale farmers in the Península. A revised program plan will contain new information diffusion products (pamphlets, posters, radio) that are elaborated in an effective extension, educational, and communication strategy.

There is excellent research and evidence that better results in agricultural production, better nutrition status, increased income, and other measureable economic benefits for poor people can be accomplished more effectively and efficiently by development organizations with well-coordinated and planned extension strategies. This information and those strategies are not being applied completely by MFM in Ecuador.

The ingredients for this strategy include the following:

- Visitation and one-on-one discussion with farmers and families
- Non-formal education programs (talks, discussions, courses, seminars, field days, demonstrations, planned well and sequentially)
- Formal education (primary and secondary school education with relevant curriculum for rural people)

- Mass media (radio, cassettes, posters, pamphlets)
- Practical demonstrations
- Inputs (credit, seeds, insecticides, fertilizers, land, water, people, stoves, food, etc)

Planning and proper intervention of each of these ingredients makes a modern and effective extension, education, and communication strategy work. MFM is deficient in setting up this strategy creating less effective and efficient results in their work.

4. Broad Approach to Rural Integral Development

The general approach by MFM is well-meaning and has positive results. Its vision, however, of rural integral development can be expanded to have a more broad approach to rural integral development. It needs to plan widely and explore new alternatives for the region. This would lead to new activities where it can make a contribution.

There are excellent examples of its initial efforts in thinking along these lines. Those include the solar stove, the cottage bakery, the school water pump system, the equipment loan program, water welldrill, de-salinization of sea water, poultry raising, and community dams. They are encouraged to continue this effort and to plan effectively for rural integral development.

Specific recommendations that complement these broad recommendations as well as others that may not fall into one of these broad categories will follow.

B. Specific Recommendations

1. Outline major alternatives in socio-economic development in region and opportunities and make them available to farmers.

2. Sponsor and conduct innovative small-scale experiments for which large organizations can learn and then serve as liaison between the community and various government agencies so that they adopt these projects.

Emphasis should be on water projects, cottage industry employment projects, small animal projects, and vegetable and other drought farming projects.

3. Support efforts to get credit for farmers from Banco Nacional de Fomento for agriculture or other alternative job opportunities.

Overall MFM Program

1. Write - up general development philosophy, including goals and objectives for each concentration area.

2. Write - up a detailed Action Plan with specific measureable performance objectives. Should include activities required and inputs to achieve those objectives.

3. Set-up seminar explaning its techniques and methologies for government and municipality officials concerning work in rural areas of Santa Elena. Reason is to transfer experience.

4. Expand credit program from US $ 12,000 to US $ 50,000 minimal immediately, especially to cover water pumps.

5. Continue to experiment with change and with action change projects. Continue to be involved with experimentation and be sure that results are known by the government.

6. Continue a regular small farmer training program that "accelerates" small farmers into progressive farmers as well as transfer leadership role from the MFM staff to the farmers tehmselves. This will accelerate self-sufficiency at a faster rate.

7. MFM/California should continue its active role in using its experiences worldwide and its lessons learned to bear on the Ecuador Program. It should demonstrate direction in applied nutrition programs to the Ecuador program.

8. Promote and support projects that generate income for low income people in the Península.

Horticulture Program

1. Study ways to get involved with more commercialization to complete total package of technical assistance.

2. Provide more demonstrations through field day or hands on demonstration at farm.

3. Set-up modern extension system with extension - visits techniques. Should include folders on farmers, controls, hand outs, regular schedule, etc.

4. Set-up extension system using communication strategy of visits, talks, courses, demonstrations, pamphlets, radio, and sequential visitation system.

5. Write-up readable four page pamphlets on tomatoes, onions,, peppers, cucumbers, irrigation, water use, and others that farmers can use.

6. Farmers association must be watched carefully to avoid initial frustration over expectations of the Foundation. Tramites should be pushed soonest to get on with more important issues.

7. Train 25 extension workers from Ministry of Agriculture (5), Seguro Social Campesino (5), and farm leaders (15) on MFM extension techniques so that spread effect will take place.

8. Expand credit provision to 25 new farmers. Expand credit to horticulture to include clearing land, purchasing water tubes, water pumps, and commercialization.

9. Set-up monthly visitation schedule at least two weeks before month begins and distribute to farmers. Follow this schedule rigorously and religiously.

10. Maintain farmer contact cards and file system with yields, pests, recommendations so that accurate records are kept on the farmers.

Poultry Program

1. Write-up pamphlet on poultry raising including techniques, inputs, cost, problems, marketing and gains.

2. Give talks in rural communities about advantages of starting poultry raising projects. Start with project

towns and include other towns. Pass out pamphlets. Offer credit to farmers who meet minimal prerequisites if credit is expanded.

3. Study and write-up the economics of poultry raising, including economics of scale, inputs, prices and expected profit.

Nutritional Education Program

1. Plan out action plan that demonstrates well-coordinated actions and activities that lead to specific measurable performance objectives.

2. Begin sequential programming including effective communication strategy and nutrition curriculum.

3. Set-up regular monthly schedule at least two weeks before month begins, distribute it to the communities, and follow this schedule rigorously.

4. Write-up specific lesson plans for applied nutrition program. Should contain very specific performance objectives.

Rural Infrastructure Program

1. Support pig, goat production. Set-up some incentive program so that farmers begin to produce more pigs and goats. Should be tied to credit.

2. Plan out goals and then specific rural infrastructure projects to reach those goals. Plan out series of alternative rural infrastructure strategies that can be implemented effectively.

Small Grants Program

1. Set-up credit system with prerequisites and open up to other small scale farmers in region.

2. Write four page easy-to-read pamphlet on credit program so can be distributed to interested farmers.

3. Expand credit to $ 50,000 minimal immediately. Can be handled well through existing administrative set-up.

4. Credit should be expanded to other cottage industries in region. Farmers and former farmers should write up their proposals and be submitted to MFM.

Administration

1. Post visitation schedules on MFM walls for farmers. Refer to them to state when these technicians would visit project. Hand out schedules to farmers as they come in.

2. Take each and every advantage of contact with farmers at the office: a) set up bulletin board, including photos of work with farmers in each area; b) latest price information for agricultural crops and poultry; c) pamphlets and hand outs for farmers that come to office; d) slide show available on latest technology; e) seed, fertilizer, pesticide samples; f) visual aids on the walls; g) Field Day photos; h) list of farmers participating in the program; i) other institutions working in the area.

3. Maintain farmer registry on all contacts, including basic information on hectares, family etc. A central file system that records contacts, visits, inspection, credit and other relevant information.

4. Purchase didactic materials for different programs according to needs of sub-programs.

MFM continues to develop itself daily. It has an amazing ability to learn from the past and let past experiences become history. They look backwards to learn but do not get stuck in the tar pits of history. Rather they are visionary people with deep and profound understanding of poverty. They have this amazing grace to be patient with themselves and the daily rocks that come across their paths. They do not stumble easily.

Most public development organization in Ecuador simply go through the motions of providing services to poor rural people. They have resigned themselves to their ambivalent and non-accomplishments in the rural areas of Ecuador. Their pessimism and ambivalence is demonstrated in the accomplishments they make. So it was refreshing to observe very fine human beings with a deep concern for Ecuador and the plight of poor people. They set an example for those who want to serve that small is indeed possible and that the people know how when given the chance improve their lives.

2. Applied Nutrition Programs (ANP)*

ANP's are comprehensive, interrelated educational activities whose purpose is to improve the nutritional status of local populations, particularly mothers and children. Their guiding principles are coordination among different agencies and institutions and the active participation of the people themselves. Family members are brought into the program through schools, health centers, clubs and community organizations. National food and nutrition policies are linked with field activities at regional, community and family levels through a coordination of the available human and material resources.

Through these long-term programs we assist communities and individuals to recognize and solve their own food and nutrition problems. An important aim of our ANP programs is to establish a self-sustaining process which will continue once we withdraw our support.

The development and implementation of an ANP follows five stages:

Stage 1. Doing a feasibility survey and preliminary planning.

Stage 2. Defining objectives, collecting baseline data and doing more detailed planning.

Stage 3. Initiating program operations.

Stage 4. Evaluating.

Stage 5. Expanding the program to other communities.

Applied Nutrition is a dynamic field and new activities are frequently added. The list of possible activities which could be carried out under an ANP as expressed in Dr. Latham's model are:

a. Health

Training health personnel in nutrition, nutrition surveys and investigations;

*The design and description of ANPs adapted from Planning and Evaluation of Applied Nutrition Programs by Michael C. Latham M.D., F.A.O. publication, 1972.

preventive measures against infectious diseases; nutrition and cookery demonstrations at MCH centers or clinics; under five clinics.

b. Education

School gardens (horticultural activities): animal production (poultry, rabbits, pigs, etc.); food and nutrition education; community participation in food and nutrition activities in the school.

c. Agriculture

Increasing production and use of animal protein:

Poultry: hens, ducks, geese, etc.; fishing; small animal production; rabbits, meat production: cattle, goats, sheep, etc.

Increasing production and use of vegetable protein:

Increasing indigenous legumes; introducing new legumes, improving crops with fertilizers, rotation, pest control, improved seed, irrigation, etc.

Horticulture:

Increasing production of vegetables and fruits; home and community gardens and orchards; production of improved seeds; demonstration projects.

General methods, which include increasing availability of calories

Improved cultivation methods - tractors, crop rotation, fertilizers, composts; irrigation; food storage and pest control; food protection and processing; improved transport and marketing chains.

d. Community Development

Nutrition education of the public; food storage in the home; organization of women's groups, youth clubs.

e. Cooperatives

Use of cooperatives for improving agriculture; supply of fertilizers, tested seed, insecticides, etc. Retail cooperatives; general stores, etc.

Working with local agencies, MFM/FFH emphasizes the following specific capabilities for its ANPs:

a. Training and Technical Assistance
   - program design and evaluation,
   - small-scale food production,
   - processing and preservation technologies
   - training for staff

b. Material Assistance
   - equipment
   - small grants to community groups

c. Nutrition Education
   - comprehensive educational programs for communities
   - development of nutrition education materials