To the Graduate Council:

I am submitting herewith a dissertation written by Karen Jackson-Mullinax entitled "An Analysis of the Agricultural Assistance Activities of United States-based Religious Agencies: The Role of the Mission Staff, the Local Community, the Host Government, Attitudinal and Institutional Factors, and Technology." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Economics.

William E. Cole, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Provost
and Dean of The Graduate School

AN ANALYSIS OF THE AGRICULTURAL ASSISTANCE ACTIVITIES OF UNITED STATES-BASED RELIGIOUS AGENCIES: THE ROLE OF THE MISSION STAFF, THE LOCAL COMMUNITY, THE HOST GOVERNMENT, ATTITUDINAL AND INSTITUTIONAL FACTORS, AND TECHNOLOGY

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Karen Jackson Mullinax

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To My Entire Family

but especially

TO MOTHER

Your Love, Support, Encouragement and Prayers
(along with Daddy's admonitions to "Hang in There")
sustained me more than you will ever know

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ABSTRACT

This study focuses on the agricultural assistance activities of a select group of religious agencies that in combination administer a significant proportion of United States-based religious aid abroad with respect to agricultural assistance. The primary purpose of the study is to discover how these religious agencies handle technical assistance, identifying differences between their approach as opposed to others and attempting, in the process, to identify factors that increase the chances for success of agricultural projects aimed at benefiting the rural poor in the developing Third World countries. An analytical framework, constructed around the issues influencing project success that have warranted frequent discussion in the development literature, is utilized in examining the agricultural assistance activities of the religious agencies selected for inclusion in the study. The missionary force of these United States-based religious agencies is drawn upon extensively as an invaluable, though largely untapped, source of information concerning what does, and what does not, enhance the effectiveness of agricultural assistance efforts. For analytical purposes, the issues to be addressed in the study have been divided into the following five categories: the role of the mission staff, the role of the local community, the role of

the host government, the role of "attitudinal and institutional" factors, and the role of technology.

A questionnaire, carefully formulated to address the issues deemed relevant to the study, served as the primary technique for data collection. The questionnaire not only provided the researcher with statistical information but, perhaps more importantly, with extensive written comments by survey respondents that aided tremendously in identifying factors that increase the chances for success of agricultural assistance projects.

The agricultural assistance efforts of United States-based missionary-sending agencies are distinguished by the fact that they are normally person- rather than project-centered. Agricultural missionaries are more concerned about helping "people" than about conducting "projects." Indeed, the emphasis placed by mission agencies on "wholistic" ministries is consistent with the recent call in the literature for more of an anthropological approach in the field of agricultural development.

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CHAPTER I

INTRODUCTION

During the 1970s a number of Third World countries experienced crises that drastically affected their food supplies and left entire populations on the brink of starvation and death. Though funds, food, and material supplies poured into these countries from all over the world so that complete disaster was averted, the eyes of people everywhere had at last been opened to the stark reality of world hunger and poverty. Official government response to the situation soon resulted in a greater channeling of world development assistance into the rural sectors of the very low income developing countries, where the greatest percentage of world poverty existed. Agricultural assistance began to assume a role of prominence in foreign assistance programs since the majority of the world's poor resided in the agricultural sector of the world economy.

The United States began to redirect its foreign assistance program toward this end in 1974, immediately after, and in direct response to, the passage of the New Directions legislation of 1973. This piece of legislation dramatically changed the pattern of United States government aid by requiring the Agency for International Development (A.I.D.), the primary administering agent of

United States government aid, to begin to focus its efforts on meeting the basic human needs of the very poor, especially the rural poor, in the developing countries. In 1974, just after the passage of the New Directions legislation, the Agency for International Development proposed to Congress a 1975 fiscal year budget that called for a forty-five percent increase in total program funds for functional development assistance and a remarkable 146 percent increase in expenditures to be provided for assistance to developing countries in the category of Agriculture, Rural Development and Nutrition (A.I.D. Submission Apr. 1974: 10). In the actual program approved for fiscal year 1975, total A.I.D. program funds rose only a modest fourteen percent. The level of expenditures allocated to Agriculture, Rural Development and Nutrition, however, nearly doubled (rising some eighty-two percent) so that the percentage of total A.I.D. program funds allocated to this particular sector of development assistance rose from a 1974 level of thirty-five percent to a level of fifty-six percent in fiscal year 1975 (A.I.D. Submission Apr. 1976: 75).

In every year since 1975, the Agriculture, Rural Development and Nutrition account has continued to be the largest portion of the request for functional development assistance funds--a clear-cut indication of A.I.D.'s continuing effort to successfully execute the Congressional

mandate of 1973. The changing focus of United States government aid has not only been evident in the shifting of funds between accounts (resulting in the increased funding of agriculture, rural development and nutrition programs), but also in the shifting of funds between countries, with the relatively poorer countries receiving the bulk of United States development assistance. In recent years at least seventy-five percent of the total request for functional development funds has been allocated to "low income" countries, currently defined as those with an annual per capita income of $795 or less (A.I.D. Congressional Presentation Apr. 1983: 10). In the 1982 fiscal year request, some ninety-two percent of the total A.I.D. request was earmarked for the low income developing countries (A.I.D. Congressional Presentation Feb. 1981: 10).

The rechanneling of official United States government aid has been a positive step in the midst of the World Hunger crisis. But the level of United States government aid, limited as it is by Congressional appropriation, has not been, and will probably never be, sufficient to alleviate even the most extreme conditions of poverty existent in the Third World's poorest countries. Indeed, population growth has resulted in an increased level of world poverty despite all of the efforts that have been directed toward meeting basic human needs in the developing countries. The distribution of food among the world's

hungry, although necessary in disaster situations, is no longer considered a viable solution to the problem of world hunger. Only as the world joins forces to combat the root causes of hunger and poverty will viable solutions to the problem be forthcoming.

At no other time in the history of our country, have the American people been so aware of Third World poverty and of the insufficiency of "official" government aid to meet even the most basic human needs of the world's poor majority. Increased awareness and the growing urgency of the situation has resulted in an unprecedented degree of involvement on the part of the American public in efforts to reduce the extent of hunger and poverty in the developing countries. Hundreds of non-profit organizations have responded to the World Hunger crisis. According to the 1981 TAICH (Technical Assistance Information Clearing House) publication Food Production and Agriculture, the non-profit sector "plays a significant and growing role in helping people in Third World nations to become self-sufficient in food resources and to create and strengthen the local capability to combat hunger and poverty (1981: xi)." This study will focus on the role of one particular sector of these non-profit organizations--the missionary effort overseas of United States-based religious agencies--in helping to reduce, through agricultural assistance, hunger and poverty in the Third World.

The paucity of information concerning the agricultural assistance portfolio of United States-based religious agencies is in marked contrast to the massive volumes that document the involvement of the United States government in agricultural assistance efforts in the Third World through its official foreign assistance program. Indeed, the missionary force of United States-based religious agencies remains a largely untapped source of information concerning what does, and what does not, enhance the effectiveness of development assistance. While many of the countries currently receiving government aid are new to the United States foreign assistance program, the majority of them are well known to missionary groups. Missionaries have been at work in many of the Third World countries since before the turn of the century. It is quite possible that valuable insights into the development process, that perhaps come only with time, have been gained through the work of these missionary-sending agencies.

UNITED STATES PROTESTANT MISSIONS OVERSEAS

Very early in the history of the United States, churches felt impelled to send representatives from their own congregations to other lands and peoples. By the early 1800s, the "missionary movement" in the United States, though small in scale, had begun (Wilson 1980: 23). The actual magnitudes involved--in terms of the number of

dollars spent and the number of personnel sent overseas--in the initial years of the movement are unknown since missionaries were sent out on an individual basis by individual church congregations. In the early to mid-1800s, however, several major Protestant denominations began to establish mission agencies in order to better organize and coordinate the overseas mission effort of the individual churches within their denominations. By the early 1900s the majority of the larger Protestant denominational mission agencies that exist today had been established (Ibidem: Varied pages).

The emergence of mission agencies in the 1800s was not limited to denominational agencies. Various groups outside the realm of the established denominations, as well as groups representing a host of denominations, formed agencies for the purpose of conducting overseas mission activities. The mission agencies established by all groups during the course of the nineteenth century numbered slightly under one hundred by the turn of the century. The gradual emergence of mission agencies in the 1800s gave way to substantial growth in the period from 1900 to 1950, with an average of fifty agencies established per decade. The real impetus, however, to the establishment of mission agencies occurred after World War II. The 1950s witnessed the founding of over one hundred agencies, an unprecented number for a single decade. In recent years the number of

mission agencies established has closely approximated that of the 1950s, so that of the 645 United States-based agencies listed in the Mission Handbook: North American Protestant Ministries Overseas, over one-half have founding dates that fall within the thirty year period from 1950 to 1980 (Ibidem: 47).

Though the United States missionary movement is now largely coordinated through an intricate network of mission agencies, it is still difficult, as in the days before the existence of mission agencies, to make an accurate assessment of the total movement; for mission agencies "come and go, change their names, merge, [and] shift their ministries (Ibidem: 23)." The editor of the Mission Handbook continually cautions the reader that "the analysis presented in the following pages is based upon available, and not always complete, data and approximately represents the state of the North American Protestant overseas mission effort (Ibidem). . . ."

A glance through the Directory of Agencies in the Mission Handbook immediately suggests that there are many different "types" of mission agencies among the 645 organizations which "represent the overwhelming bulk of the personnel, funds, and effort of the [United States] Protestant overseas endeavor (Ibidem: 47)." In referring to the work of a particular mission agency, it is, therefore, useful to note the titles assigned to the agency

as well as some of its basic characteristics, especially with regard to functional/geographical concentration and extent of organizational structure.

The first title assigned to a mission agency--denominational, interdenominational, or nondenominational--indicates, respectively, whether the agency coordinates the mission efforts of a group of churches or individuals representing a particular denomination, representing several cooperating denominations, or having no denominational ties. A second title, international, is given to agencies that have headquarters outside of North America, though employing personnel from North America and/or maintaining offices in North America for the raising of funds (Ibidem: 138).

Some agencies are referred to as sending agencies because some or all of their overseas ministries are conducted by their own missionary force. Other agencies, most often categorized as specialized service agencies, do not send missionaries overseas, though they may from time to time send staff personnel on overseas assignment for a limited period of time (Ibidem: 46). Non-sending agencies often assist in the support of missionaries sent overseas by other agencies. Many are heavily engaged in the raising and transmitting of funds for mission work. Others aid the "cause of missions" in a variety of ways, such as producing and distributing literature utilized in overseas mission

endeavors; providing information services, missionary education, and mission-related research; and providing equipment and/or material supplies and specialized mission-related services in the areas of transportation and communications (Ibidem: Varied pages). Though sending agencies currently outnumber non-sending agencies two-to-one, it is interesting to note the dramatic increase in the number of non-sending agencies established in recent years, due primarily to the increasing complexity of the overseas mission task (Ibidem: 51-52).

In addition to the differences among mission agencies stemming from whether or not they have denominational ties and whether or not they send missionary personnel overseas, mission agencies also differ significantly in terms of their degree of functional and geographic concentration. Some agencies, for instance, have chosen to commit all of their financial and personnel resources to a particular ministry, while others have chosen to diversify functionally by supporting and/or conducting a variety of ministries. Some agencies limit their overseas efforts to a particular geographic area, while others engage in and/or support mission endeavors in hundreds of countries around the world (Ibidem: 46).

Finally, mission agencies differ greatly with respect to their degree of organizational structure. Some agencies are very loosely organized, while others have highly

developed organizational structures. For example, some agencies "are little more than groups of people who have loosely banded together to carry out a particular ministry, [while] others have formalized organizations with constitutions, by-laws, a statement of faith and a board of directors (Ibidem)."

To describe the mission effort overseas of United States-based religious agencies is difficult, not only because of the aforementioned differences in "types" of mission agencies, but because each agency has its own view of what constitutes "missions." In the traditional sense of the term, missions has most often hinged upon the two basic tasks of "proclaiming the gospel" and "establishing churches." According to the stated goals and objectives of various mission agencies, traditional missions remain an integral part of the overall mission effort of United States-based religious agencies (Ibidem: 64). When asked in a survey questionnaire to indicate the primary task or tasks officially adopted by their agency to which they commit substantial resources, the three most frequently listed functional ministries were Church Planting and Establishing, Personal and Small Group Evangelism, and Mass Evangelism. Closely related ministries--General Christian Education, Theological Education, and Nurture or Support of National Churches--were also among the top ten of the most frequently listed functional ministries (Ibidem: 65).

Though traditional missions continue to absorb the majority of the funds spent and the personnel sent overseas by United States-based religious agencies, the concept of "missions" has, however, gradually begun to take on a broader meaning. In addition to traditional missions, which primarily focus on meeting the spiritual needs of mankind, there is now increasing emphasis on the development of missions specifically oriented toward addressing the physical and emotional needs of mankind. Agencies that have "historically had a large component of social action in their overseas mission programs [are continuing] to express this concern," while others are gradually expanding their areas of ministry into the social realm (Ibidem: 12). In the 1980s and 1990s, a more "balanced mix of religious and social relevance will probably occur along the whole spectrum of missions (Ibidem: 13)."

Historically, the most common form of social involvement on the part of mission agencies has been in the field of medicine. This continues to be the case. Over twenty percent of the agencies described in the Mission Handbook listed Medicine (Dental and Public Health) as one of their primary functional ministries (Ibidem: 65). Though medical assistance dominates the "nontraditional" component of missions, concern for the physical and emotional needs of individuals is now being expressed by

mission agencies in a number of ways. Notable expansions in the areas of agricultural assistance, aid and/or relief, community development, development of human resources, secular education, literacy programs, self-help projects, and technical assistance attest to the increasing involvement of mission agencies in ministries that go beyond those of traditional missions (Ibidem: Varied pages).

Though referred to often in the publications of some of the larger United States-based religious agencies, the "wholistic" approach to missions (ministering to the needs of the "whole" person) is not easily affordable for agencies characterized by low budgets and small overseas staffs. The majority of United States-based religious agencies involved in evangelism and establishing churches are simply too small--in terms of funds and personnel--to become actively involved in activities or ministries outside the realm of traditional missions. According to the Mission Handbook, a significant proportion of the mission effort of religious agencies, in terms of dollars spent and personnel sent overseas, is highly concentrated in only a few agencies. The ten largest agencies in reported overseas personnel, for instance, account for forty-four percent of the total Protestant misisonary force, while the ten largest agencies in reported income account for thirty-three percent of the total income reported by United States

Protestant mission agencies. Fifty percent of all reported personnel and fifty percent of all reported income are in only fifteen and twenty-five agencies, respectively (Ibidem: 54).

Since the majority of mission agencies in the United States have staffs of fewer than fourteen persons and overseas budgets of less than $250,000 (Ibidem: 57, 62), it is difficult to determine the extent to which the wholistic approach to missions has been adopted throughout the network of mission agencies; for many of these agencies, characterized by small staffs and low overseas budgets, may adhere to the basic philosophy of the approach, but have not as yet been able to outwardly demonstrate their adherence. The increasing involvement in development assistance activities by mission agencies that have been able to extend their ministries beyond those of traditional missions is, however, well documented in the 1978 TAICH Directory--U. S. Non-Profit Organizations in Development Assistance Abroad.

A study of any one of the sectors of development assistance in which United States-based religious agencies have become involved could provide valuable information for Development economists. Because of its particular relevance to the "development decade of the 1980s," however, this study will focus on the agricultural assistance activities overseas of United States-based religious agencies.

STATEMENT OF THE STUDY

This study focuses on the agricultural assistance activities of a select group of religious agencies that in combination administer a significant proportion of United States-based religious aid abroad with respect to agricultural assistance. The primary purpose of the study is to discover how these religious agencies handle technical assistance, identifying differences between their approach as opposed to others and attempting, in the process, to identify factors that increase the chances for success of agricultural projects aimed at benefiting the rural poor in the developing Third World countries. An analytical framework, constructed around the issues influencing project success that have warranted frequent discussion in the development literature, is utilized in examining the agricultural assistance activities of the religious agencies selected for inclusion in the study. The missionary force of these United States-based religious agencies is drawn upon extensively as an invaluable, though largely untapped, source of information concerning what does, and what does not, enhance the effectiveness of agricultural assistance efforts. Insights into the process of agricultural development provided by missionary personnel serve as the primary basis for the conclusions arrived at in the study.

Though providing basic information on "who is doing what" in the administration of United States-based religious aid abroad, this study, it must be emphasized, is primarily issue-oriented. A comprehensive cataloguing of the projects comprising the agricultural assistance portfolio of United States-based religious agencies is not an objective of the study. At most, the researcher has attempted to obtain data on a representative sample of projects so that the various "prototypes" of agricultural assistance being conducted abroad by religious agencies can be readily identified.

For analytical purposes, the issues to be addressed in the study have been divided into the following five categories: the role of the mission staff, the role of the local community, the role of the host government, the role of "attitudinal and institutional" factors, and the role of technology. Chapters V-IX examine the issues in each category respectively, incorporating the data obtained from the missionary personnel.

DATA COLLECTION PROCESS

The twelfth edition of Mission Handbook: North American Protestant Ministries Overseas, a standard reference work, was utilized as the primary source for the identification of those religious agencies that in combination administer the majority of United States-based

religious aid abroad with respect to agricultural assistance. Two TAICH publications, 1978 TAICH Directory--U. S. Non-Profit Organizations in Development Assistance Abroad and Food Production and Agriculture were used as supplements to the Mission Handbook in identifying mission agencies involved in agricultural assistance activities overseas.

The basic minimum criteria utilized for the selection of agencies considered appropriate for inclusion in this study were:

1) The agency must be based in the United States and must have missionary involvement in at least one underdeveloped country.

AND

2) The agency must be listed in the Mission Handbook among the "Twenty-five Largest Agencies in Reported Income" and must indicate in its agency description at least some minimum degree of involvement in "development" work.

OR

3) The agency must be listed in the Mission Handbook among the "Twenty-five Largest Agencies in Reported Overseas Personnel" and must indicate in its agency description at least some minimum degree of involvement in "development" work.

OR

4) The agency must be listed in the Mission Handbook among the agencies reporting Agricultural Assistance as one of their primary functions and must have overseas personnel and a minimum of $500,000 in reported income for overseas ministries.

OR

5) The agency must be listed in the 1978 TAICH Directory--U. S. Non-Profit Organizations in Development Assistance Abroad, must indicate in its agency description some minimum degree of involvement in the category of "Food Production and Agriculture," and must have overseas personnel and an overseas budget of at least $500,000.

OR

6) The agency must be listed in the TAICH publication Food Production and Agriculture and must have overseas personnel and an overseas budget of at least $500,000.

The particular criteria utilized for the selection of the agencies to be included in the study, which effectively limited the agencies included to sending agencies with relatively large overseas budgets, were established for two basic reasons. First, in a preliminary investigation it was found that several of the larger agencies, whose agency descriptions indicated no involvement in agricultural assistance, spent an amount of money on agricultural programs overseas that exceeded the total overseas budgets of many of the smaller agencies that had specifically declared agricultural assistance as a primary functional ministry. On the basis of this investigation, the minimum requirement with regard to income was established in the belief that the larger agencies in terms of total income would be more likely to have the resources necessary for significant efforts in the field of agricultural assistance. Second, the minimum requirement with regard to

personnel was established since the study was designed to obtain inputs from missionary personnel actively involved in agricultural assistance activities overseas.

The criteria were also established, in part, to limit the scope of the study to a level deemed realistic for an individual researcher. No claim at comprehensiveness is made; it is readily conceded that significant efforts in the field of agricultural assistance may be being conducted by agencies that were not included in the study due to their inability to satisfy the established criteria. It is the belief of the researcher, however, that a significant proportion of the total agricultural assistance effort overseas of United States-based Protestant mission agencies is being conducted through the auspices of the agencies that did satisfy the criteria and were, therefore, included in the study.

It should be noted that the criteria established for the selection of agencies to be included in this study in no way excluded Catholic agencies. The study has been limited to Protestant agencies only because the primary agency for administering Catholic development aid abroad, Catholic Relief Services--United States Catholic Conference, did not choose to participate. Three Catholic mission agencies did agree to participate; however, inputs obtained from these agencies were so minimal that the researcher chose to exclude those inputs and focus solely on the

agricultural assistance efforts being conducted overseas by the United States Protestant missionary force. Added legitimacy to such a focus was obtained from the following statement cited in the Mission Handbook: North American Protestant Ministries Overseas.

> In terms of world totals, North American Catholic missionaries represent a significantly smaller percentage of all Catholic missionaries than North American Protestant missionaries represent of all Protestant missionaries. Whereas about 70 percent of the world Protestant missionary force comes from North America, about 7 percent of the Catholic missionary personnel come from this continent (Wilson 1980: 29).

On the basis of the criteria established, seventy-three agencies were identified for possible inclusion in this study. An initial contact letter stating the purpose of the study, the criteria for selection of the agency for inclusion in the study, and a time for further contact was sent to all of these agencies. The agencies were then contacted by telephone to determine whether or not they were actually involved in development assistance activities abroad; the types and extent of their development assistance activities; their willingness to participate in the study being conducted; the probability of obtaining data from missionary personnel utilizing the questionnaire technique; and the name of the contact person within each agency. Finally, the contact persons within the agencies that had expressed a willingness to participate in the study were contacted by letter in order to request that they

provide the names and addresses of their agency's missionaries involved in agricultural assistance efforts. A request was also made for any secondary resources (agency publications, et cetera) that might be of relevance to the study.

Although most of the religious agencies involved in development assistance efforts overseas are devoting a significant proportion of their resources to the development and support of medical and educational ministries, the researcher's contacts with the agencies did show that there was sufficient agricultural assistance being conducted abroad by United States-based religious agencies to warrant a study that would focus on this particular sector of development assistance activities.

The overall response from the agencies concerning the proposed study was extremely favorable. Approximately one-third (twenty-five) of the Protestant mission agencies initially contacted expressed a willingness to participate in the study (See Appendix A). The remaining agencies contacted expressed an interest in the type of study proposed, but were unable to participate for a variety of reasons. A few of the agencies, though engaged in agricultural assistance activities on the mission field, indicated an unwillingness to participate in the study due primarily to time and staff constraints. The other agencies, however, were unable to participate because of

the very limited amount of development assistance conducted by their agencies abroad. Some of these agencies had at one time been involved in development assistance efforts, but had since turned over to the nationals of the countries involved all of these "supporting-type" ministries.

A questionnaire, carefully formulated to address the issues deemed relevant to this study, served as the primary technique for data collection; and the missionaries most closely associated with the agricultural assistance efforts of the selected United States-based religious agencies served as the primary source for data collection. The questionnaire was sent to 139 individuals--the missionaries whose names and addresses had been provided by the twenty-five mission agencies participating in the study. At least some portion of the questionnaire was returned by 106 individuals (76.3%). Seventeen missionaries (12.2%) sent letters confirming receipt of the questionnaire, but indicated that they could not provide any useful inputs. They did, however, express interest in the proposed study and gave words of support and encouragement. Of the 139 individuals to whom questionnaries were sent, only sixteen (11.5%) failed to respond in any way.

The researcher has been overwhelmed by the tremendous response of the missionaries who took time out of their busy schedules to fill out a rather lengthy questionnaire for an "unknown" graduate student. Though special efforts

were taken to ensure a high response rate (such as enclosing checks to cover return postage and sending "personalized" reminder notes), the researcher is no less aware of the fact that without the generous cooperation of the missionaries this study would not have been possible.

CHAPTER II

LITERATURE REVIEW

PART ONE

WESTERN TECHNOLOGY--NOT THE ANSWER

Living in a world in which agriculture was undergoing technological advances to the point of becoming a sophisticated industry and in which food was becoming, in effect, just one more commodity produced for the market, development planners in the developed world naturally accorded top priority to the role of technology in their initial efforts at agricultural assistance in the developing Third World countries. Indeed, in the "first flush of enthusiasm and optimism for aid, it was assumed that a purely technological answer would meet the need--the transfer of some of our techniques would 'solve the problem (Stamp 1977: 161).'" Having experienced such tremendous progress in science and technology, the industrialized nations could not help but view advancement of the developing countries as contingent upon their abandonment of traditional ways and beliefs in favor of the advantages to be gained from technological advance (Ensminger and Bomani 1980: 6). Inherent in the early assumptions of the aid-giving nations, however, were two very basic misconceptions--the idea that technology would be THE

answer and that the technology should be of a "western" variety (Ibidem: Stamp 1977: 161).

The failure of technology, and of Western technology in particular, to bring about a widespread and significant improvement in the lives of the developing countries' small subsistence farmers has, perhaps more than anything else in recent years, brought attention to the misconceptions of development planners and has called for a reorientation in their thinking concerning the role of technology. The Green Revolution of the 1960s, for instance, though widely applauded for its tremendous contribution in the field of agricultural development, did not significantly touch the lives of the world's poor majority who for a variety of reasons were not able to participate in the waves of technological advance associated with the Revolution (Bhatia 1977: 150). It offered little support for the assumption that "the problems of agriculture are largely technical, and that modern technology will solve them (Stamp 1977: 77)."

With the advantage of hindsight and in a different climate of development thinking, it now seems almost ludicrous to think of Western technology as THE answer to agricultural development in the Third World; for Western technology tends to ignore, or at least to overlook, the realities of life in the agricultural sectors of the developing countries, particularly the low-income

developing countries. Technological packages developed by Western scientists on the basis of technical viability alone have been found unsuitable time after time when transferred to Third World countries (Biggs and Tinnermeier 1974: 63); for all too often, the "master plans devised in Rome or Washington . . . bear the hallmark of western thinking and idealized technical solutions," completely ignoring the non-technical factors that influence small farmer decision making (Stamp 1977: 163). Indeed, technology accepted in the developed world on the basis of its profitability alone has often been "justifiably" rejected in the Third World where "profit motivation may be only one of a host of considerations which the individual weighs in making his decision regarding a new production practice (Biggs and Tinnermeier 1974: 61)." Without a thorough understanding of small farmer constraints and the impact they have upon decision making, success in agricultural assistance efforts is thwarted (Morss et al. 1976: 60). In failing to adequately allow for these constraints in the design and implementation of agricultural projects, there has often been a tendency to apply technical solutions to what are not, in reality, technical problems (Stamp 1977: 164).

THE RISK CONSTRAINT

The risk constraint, perhaps more than any other, must be given serious consideration in small farmer agricultural assistance efforts; for one of the primary factors influencing a small farmer's decision to accept or reject an innovation in technology is the degree of risk implied by the new technology (Biggs and Tinnermeier 1974: 161). According to Morss et al., risk and the small farmer's view of risk is the key to an understanding of small farmer behavior (1976: 49). The risk constraint under which all subsistence farmers operate to some extent explains, for instance, why Third World farmers are generally not willing to change their farming practices unless they are assured of a dramatic increase in yield (Stamp 1977: 66; Streeter n.d.: 12)--"increases on the order of 100% or more, rather than a mere 10 to 15% (Streeter n.d.: 69)." The typical small farmer is simply in no position to assume much risk, and he will not do so unless the chance of gain is so great that he feels compelled to take the gamble (Ibidem; Schickele 1968: 305).

It is now admitted by some development specialists that "small farmers, in resisting the preachments of modern agricultural scientists, are better economists than the external change agents who so insistently attempt to displace their traditional farming practices (Morss et al.

1976: 49)." When an external change agent advocates new and costly inputs, for instance, "as if their use were risk-free, a sure bet, . . . neither the agent's income nor livelihood is jeopardized (Ibidem);" but when small farmers "gamble" on a new production technology, they "play for the highest stakes possible--their own subsistence (Ibidem)." Since they "cannot accept risks which might jeopardize their families' survival, their economic decisions attempt to avoid risk and to increase security (Biggs and Tinnermeier 1974: 107)." Indeed, of greater importance than increased output is the assurance of stability in output whereby the subsistence farmer can be ensured of continued survival even if this must be at his existing low level of living (Ibidem: 33). When one miscalculation can destroy the little security which their traditional habits ensure, it is understandable that farmers living on the margin of subsistence resist change (Simon and Simon 1973: 91).

Ronald L. Tinnermeier, co-editor of a book entitled Small Farm Agricultural Development Problems, outlines four basic risks encountered by small farmers in adopting new technology. The first risk, and probably the most serious according to Tinnermeier, is that of yield variability. Since small farmers are most secure when they are assured of stability in output, new technologies, which consistently show greater yield variations than do the traditional

methods, are normally viewed as suspect (Biggs and Tinnermeier 1974: 107; Islam 1974: xvii). The success of the Puebla Project in Mexico, to cite one example, was definitely marred by the decrease in farmer participation that occurred after the first year due to the technical problem of yield variability. The new technologies, which had been developed and field tested under adequate moisture conditions, brought about dramatic increases in yields in the first year of the project when precipitation levels were above normal and well distributed throughout the growing season. But the fall in yields which occurred in the years following, due to late rains and generally dry conditions, caused many farmers to abandon their high-yield plots in favor of local technologies. This scenario has not been limited to Mexico; in various parts of the world, new technologies have been found on occasion to perform worse than traditional technologies when subjected to adverse weather conditions (Biggs and Tinnermeier 1974: 155-157).

The second risk, price variability of inputs and products, is also of major concern to small farmers. To adopt a new production technology is indeed "risky" business for a small farmer since input and product prices are exogenous factors which fluctuate from year to year (Ibidem: 108; Partners 1977: 2). Many a Third World farmer has found himself in worse shape after adopting a new

technological package due to accelerating input prices and declining product prices (Brown and Eckholm 1974: 86; Morss et al. 1976: 56; Pearse 1980: 120). This is particularly true of those farmers who have had to borrow in order to buy their first supply of inputs. Since a farmer's loan is normally secured by his harvest, "it is possible that a farmer might be obliged to sell his entire harvest--including the portion required for family subsistence--in order to cancel his credit obligation (Morss et al. 1976: 56)."

Variability in the supply of inputs is another source of risk that is taken into account by small farmers in deciding whether or not to adopt new technology. One of the organizational problems cited with reference to the Puebla Project (and this project, it must be remembered, has been considered one of the most successful attempts at small farmer development) was that of failing to ensure an adequate and timely supply of fertilizers. Shortages were particularly severe in 1971 when the Mexican government decreased the price of fertilizer, immediately creating a surge in quantity demanded. In 1972, many farmers failed to receive fertilizer in time for sowing because the local distributor had neglected to allow for sufficient lead time in ordering the fertilizer from his supplier in Mexico City (Bigg and Tinnermeier 1974: 158). Due to his limited economic resources and lack of political influence, the

small farmer is particularly vulnerable to shortages in the supply of agricultural inputs; if the supply becomes limited, the small farmer will be the first to have to do without (Ibidem: 108; Garst 1963: 127). Additionally, an improper application of a technological package due to a delay in inputs may result in a lower yield than could have been achieved without the use of the package, resulting in a total waste of the farmer's investment in inputs (Islam 1974: xvii).

Finally, small farmers may be subject to variability in the supply of services. Since the profitability of a new technological package, for instance, will often depend on the farmer's receiving technical guidance throughout the production period, what will happen if such assistance is not available? If the farmer's purchase of inputs is dependent upon the availability of credit, what will happen to profit if a delay in obtaining credit reduces the effectiveness of the technological package? Will the farmer be able to find an assured market for his increased level of output and, if so, will he be able to get his produce to that market? The risks associated with uncertain agricultural services, along with uncertain yields, prices and inputs, must be carefully weighed by the small subsistence farmer in his decisions with regard to technology adoption (Biggs and Tinnermeier 1974: 108; Morss

et al. 1976: 52; Streeter n.d.: 68; Yudelman et al. n.d.: 62).

The risk constraint facing the small farmer in Third World countries certainly helps to explain why the subsistence farmer has been reluctant to adopt the technologies associated with the widely applauded Green Revolution. In Beyond the Green Revolution, Kenneth Dahlberg likens the adoption of the new HYVs by the small farmer to the "risky" trade made by Jack in the famous children's story Jack and the Beanstalk. According to folklorists, Jack made a "foolish bargain" in trading his mother's cow for five magic beans, though in Jack's case the bargain paid off handsomely. Is the trading of a dependable if not a very productive source of food--traditional peasant agriculture--for a new and seemingly much more productive source based on new seeds with almost magical qualities a "foolish bargain?" This is the question pursued by Dahlberg and others as they analyze the implications of the Green Revolution (Dahlberg 1979: 47).

THE GREEN REVOLUTION

The new technology associated with the Green Revolution is based upon the use of man-made varieties of wheat, maize and other foodgrains in environments that can be controlled. The varieties are referred to as man-made because they have emerged from a sophisticated scientific

process of selective breeding designed to create stable new varieties of plants that have certain desired characteristics, most of which are favorable to higher yields (Pearse 1980: 9). The delicate custom-build plants thrive best in "special" environments created through the use of manufactured chemicals, carefully timed and measured applications of moisture and suitable cultivation recipes. Chemicals are necessary to increase the plant nutrient available to the optimum level for these more voracious varieties; to control for pests and disease which are intensified in response to the increase in host material; and to detroy weeds that tend to multiply when fertilizer is applied. The high potential yield of the "new" grains can be achieved only if a variety of practices, such as weeding, watering, fertilizing, transplanting, and plant-spacing are all carried out in a specific manner, which is more demanding of farmers, in terms of the accuracy required, than customary husbandry (Farmer 1977: 58; Griffin 1974: 205; Pearse 1980: 11).

The success of HYV techniques has been extremely uneven. This, however, is not surprising given the number of variables involved not just within the seeds themselves but also in the inputs and environment on which the seeds depend. Indeed, even when accompanied by improved inputs and practices, the performance of the high-yielding seeds has not always been superior to locally improved or

traditional varieties. Moreover, experience has shown that increased yields can be obtained simply by using more fertilizer, so that changing to the new seeds and significantly increasing other inputs is not necessarily the only way to increase output (Pearse 1980: 11).

In an effort to improve the workability of the "new" technology, its sponsors developed the idea of a technological "package." The package consists of a set of recommended tools, material inputs and practices which are to be utilized in a specified manner. Though the package concept implies that all the necessary ingredients for cultivation can be made available to the cultivator as a single "package deal," this is rarely the case. Programs, of course, vary in the method and extent to which they establish facilities and delivery systems for inputs, but only in a few instances will the cultivator "have the impression of a balanced and easily accessible package (Ibidem: 12)." The package, in other words, exists as a model for the program officials, but its realization depends on the cultivator who must make arrangements with various public and private sources to obtain the package of inputs (Ibidem).

In attempting to adopt "the package," farmers often encounter many factors beyond their control. This is especially true for the basic requirement of water in areas where farmers simply do not have access to adequate

supplies. Obtaining the right type of fertilizer for his field at the right time is also a highly complicated and precarious task. Acquiring the credit necessary for the purchase of fertilizer is often close to impossible, and even if credit is made available when needed, inefficiencies in the distribution system may prevent fertilizer from being delivered to the local cooperative store in time. Pest and disease control require timely accessibility to appropriate agrochemicals and technical know-how and the availability of a sprayer in working order. Even in those areas where extension agents have been successful in getting the new technology across to the farmers, it is highly unlikely that they have been successful in upgrading the quality of management to the degree required by the technological package. Consequently, adoption by itself even when accompanied by an appreciation of the complexity of the new technology, may not provide the farmer with the expected results. Indeed, the results obtained by the majority of farmers fall far short of the potential for the new technology and, therefore, well within the range of results obtainable in using the less complex and less demanding technologies already available to them (Farmer 1977: 71).

The concept of a package program is now readily accepted in India (Sen 1975: 166), but according to Sudhir Sen, "it continues to torment the nation with the promise

of exciting potential, but a record of meagre achievements (Ibidem: 165)." The package program, though constituting a giant step forward, suffers tremendously from the fact that the package itself has remained seriously imcomplete. Indeed, many of the chronic problems of the pre-package days linger ominously in several critical areas (Ibidem). Sen especially emphasizes the need for a marketing component; in fact, he goes so far as to say that India's greatest need today is to develop a package program for marketing to go hand in hand with the package program for production (Ibidem: 167-168). Unfortunately, the complexities involved in agricultural marketing are many. To "modernize" or "industrialize" agriculture, i.e., to tranform a farm into a kind of a factory, requires that markets, both input and output, be present in the local area or that transportation services be fully developed to ensure the necessary services of the markets. This is no easy task; for unlike a modern factory-industry that can (and surely always would) locate in an area with adequate transportation facilities to bring in raw materials and capital and to take out the factory output, a modern farm-industry must deal with the problem of a "zero locational option." Agriculture, unlike "industry," is location-specific. Its operations must be implemented on farms whose locations, rather than being chosen, are predetermined by nature (Ibidem: 26-27).

If the package required to "modernize" agriculture is to become a standard recipe, it must be agronomically suitable to existing physical conditions, and measures must be taken to ensure that the product associated with the package is more profitable to the farmer than is his current product. Satisfying the latter requirement, since it is more variable and elusive, often presents more of a problem than does the achievement of agronomic suitability. The demand for a new product, which in turn affects its price, is influenced by a host of factors (Pearse 1980: 12), some of which are beyond the bounds of easy prediction. A package can become "uneconomical" when, for instance, the price of a particular input rises dramatically with no forewarning. Many programs planned in the early 1970s were based on declining fertilizer prices. By the end of the decade, however, the prices of chemical products both for fertilization and for plant protection had skyrocketed, threatening the continued use of the high-yielding seeds (Ibidem: 13).

At best, under identical physical conditions, package sponsors may have to decide between the technological optimum and the economic optimum--whether to recommend the amount of fertilizer, for instance, that will yield the highest level of production or the amount that will render to the cultivator the highest net gain. In areas of great physical variation, however, the choices facing program

sponsors become infinitely more complex. Determining the amount of phosphorus to be included in the technological package in Colombia's Eastern Cundinamarca Project was, for instance, a formidable task for agronomists who found that within a single zone of that mountainous area there existed tremendous differences in the phosphorus content of the soil. The method conducive to administrative simplicity and low cost would have required that a single phosphorous recommendation be made for all cultivators in the region on the basis of the "average" amount needed for the region; this, however, would have penalized farmers whose fields contained very little phosphorous and those whose fields contained very high levels, the former because of the low yields that would result from inadequate applications of phosphorous and the latter because of the expenditure that would be required on unnecessary phosphorous. Losses on the fields of a significant number of farmers could, of course, jeopardize the success of the program. Requiring every farmer to submit a soil sample for laboratory analysis to ensure a "proper" package for each cultivator, on the other hand, would have been extremely expensive and not very feasible in an area inhabited by many small farmers (Ibidem). Deciding on a plan of action between these two extremes was no easy task for project sponsors of the Eastern Cundinamarca Project (Ibidem: 14).

The complexities involved in finding the appropriate package for a specific locality are further complicated by the fact that official programs are usually more concerned with national production figures and the effect of these on the price of food for the urban population than they are with aiding the small farmer. The achievement of national food self-sufficiency is seen as a means of easing balance of payments pressures and of escaping from excessive dependence on other countries. The ideology behind most official programs encourages, therefore,

> an image of the agricultural sector in which the rational and scientific solutions of the problems of production are constantly being generated by the scientists, but are not `adopted' by a backward peasantry. It is assumed that the reasons for the adoption or non-adoption of the practices are to be found in the ignorance and conservatism of the peasants (Ibidem). . . .

This view contributes to the discriminatory action of extension agencies; they will often seek production increases by focusing on the larger farmers, whose circumstances make adoption of an innovation a rational step forward, while turning away from those whose circumstances prevent or inhibit technology adoption (Ibidem).

Griffin cites numerous incidents in which governments have focused on larger farmers in the more prosperous regions of their country due to the complementarity of the various inputs that comprise the Green Revolution.

Government policies which discriminate in favor of large farmers will have the effect of increasing the return on their land, providing them with a strong incentive to purchase the land of small farmers who are often unable to innovate. Indeed, because the new technology is heavily dependent on cash inputs and often requires fairly sophisticated production and marketing facilities, it is not very suitable for subsistence, non-market farming. Consequently, the "revolution" usually takes place on the farms of large landowners in regions where large-scale commercial agriculture already exists. The Green Revolution, though primarily a biological and chemical revolution from a technical point of view, has been transformed into a commercial revolution from a socioeconomic point of view. The larger farmers are able to grasp the opportunities arising from the Green Revolution and improve their position, while the small subsistence farmers lag behind and may even become more impoverished (Ibidem: 73, 207-209, 212).

Though not the intension of its designers, the new technology has, then, been a success primarily in the context of commercial agriculture. Unfortunately, this will most likely continue to be the case until the "scale neutrality" of the new technology, one of its most oft-cited advantages, is accompanied by "resource neutrality." The small farmers' lack of access to the complementary

inputs needed to make the new technology a "complete" success is an issue that must continue to be addressed (Malassis 1975: 200; Maunder and Ohkawa 1983: 54). Indeed, the "blind" optimism of the sixties, when experts were concerned about the specter of feast rather than famine (Shover 1976: 280), must, in light of the plight of the small farmer, continue to give way to a "healthy" criticism of the new technology associated with the Green Revolution.

THE SMALL FARMER AND THE GREEN REVOLUTION--MEXICO AND TUNISIA

In the cases of both Mexico and Tunisia, the new technologies associated with the Green Revolution were introduced under circumstances that greatly circumvented their successful adoption by the common cultivator. Prior to the Green Revolution, an effort had been made in these countries to strengthen peasant agriculture through the establishment of production and service cooperative units; by the onset of the Revolution, however, a reversal in policy with regard to peasant agriculture was underway (Pearse 1980: 58). Though the dates were different, 1940 in Mexico and 1969 in Tunisia, the effect of the political volte-face that overtook agrarian policy in these two countries was basically the same: a return to a bi-polar agrarian structure as the programs aimed at strengthening peasant agriculture were gradually dismantled. Unfortunately, the introduction of the Green Revolution

technologies in both Mexico and Tunisia coincided with the return to bi-polarity, so that in both countries the peasant cultivators were involved in the Green Revolution under the worst possible conditions (Ibidem: 56-57).

In Food First Beyond the Myth of Scarcity, Frances Moore Lappé and Joseph Collins describe the political volte-face that overtook Mexican agrarian policy when the Cardeñas administration was replaced by that of Avila Camacho in 1940. Under Lazaro Cardeñas, elected President of Mexico in 1934, sweeping agrarian reforms were enacted. Whereas two percent of the Mexican population owned ninety-seven percent of the land in 1910, by 1940 (largely as a result of the Cardeñas administration since no major changes had occurred between 1910 and 1934) small farmers owned forty-seven percent of all farmland and produced fifty-two percent of the value of the nation's farm output (Lappé and Collins 1977: 112-113).

Under the Cardeñas administration a national bank was created that channeled credit and technical assistance to the small farmers, the beneficiaries of the recent land reform movement. The injection of new life into the countryside, resulting from the provision of credit, technical assistance and other peasant-oriented services, dramatically increased the real income of the land reform beneficiaries. The Cardeñas administration also invested in agricultural research, not to "modernize" agriculture in

imitation of United States agriculture but rather to improve on traditional farming methods. Researchers focused on developing improved varieties of wheat and especially corn, the main staple of those in the rural sector. They concentrated on developing varieties that could be effectively utilized by small farmers constrained by low incomes and less than ideal farming conditions. Progress was to be achieved by employing the abundant, underutilized resources of local peasants, not through a dependence on foreign expertise or costly imported agricultural inputs. Increased output was to be viewed as important, but not in and of itself. The goal was to help every peasant to be more productive so that the rural majority would benefit from the production increases. During the Cardeñas administration, power was clearly shifting to agrarian reform organizations controlled by cultivators (Ibidem: 113).

Enemies of Cardeñas' rural reconstruction program (such as those who had seen their haciendas expropriated and urban-based monied groups who wanted the government to support privately owned, commercial agriculture and urban industrialization rather then rural services and collective enterprises) multiplied and, by 1942, were able to seize the balance of power within the administration of Cardeñas' successor, Avila Camacho. The outcome of the shift in power for the future of Mexican agriculture was evident in

Camacho's first agricultural plan which stated that agriculture was now to serve as the basis for the "founding of industrial greatness." Agricultural progress was no longer to be guaged in terms of the well-being of the rural majority, but rather in how well it served to bring about growth elsewhere in the economy (Ibidem: 114).

It was in this historical context that the Green Revolution emerged. The Camacho administration welcomed the Rockefeller Foundation to Mexico, and in 1943 the Foundation, working within the Mexican Ministry of Agriculture, initiated an agricultural research program aimed at transporting Mexican agriculture into the modern era. In developing the widely applauded technical package that came to be associated with the Green Revolution, however, the research of the Rockefeller Foundation effectively reversed the entire thrust of the rural reconstruction program begun in the Cardenas administration. Research alternatives oriented toward the nonirrigated, subsistence sector of the Mexican economy were systematically discarded in favor of the development of a capital intensive technology that could be applied only in "naturally" well-endowed areas or in areas served by massive irrigation projects. In essence, rural development was being replaced by agricultural modernization; the focus was on how to make seeds, rather than people, more productive. The small farmer once again

took the backseat as agricultural policy swung in favor of the large commercial farmers (Ibidem: 115) who, because of the government policies pursued during the forties and fifties with regard to water resources (Wionszek 1982: 376-377), lived in the "well-endowed" areas that were best suited for the Green Revolution-type technologies. Not surprisingly, only about three percent of all farms accounted for eighty percent of Mexico's increased agricultural output during the 1950s (Lappé and Collins 1977: 116).

In 1966 the Tunisian National Agronomic Research Institute began experimenting with HYVs of Mexican wheat (Pearse 1980: 60). In Tunisia, as in Mexico, the conditions for HYV success seemed, however, to automatically exclude the mass of small farmers who normally had no savings to invest and no guarantees for obtaining credit (Ibidem: 64). Even if credit could be obtained, the peasant farmer still had to deal with the problem of obtaining fertilizer, a necessary complement to the Mexican wheat in the dry weather conditions of Tunisia. Unfortunately, fertilizer had traditionally been distributed from the capital so that the infrastructure for local small-scale distribution was conspicuously absent (Ibidem: 62). In addition, Mexican wheat was not considered edible by small cultivators who were accustomed to eating couscous, a food mixture that must be made from

"hard" wheat rather than the "soft" Mexican wheat. While the HYVs were found to be marketable and therefore capable of benefiting cultivators who were predominantly commercial in orientation, they were not, however, appropriate for the Tunisian peasants who were prepared to risk indebtedness to the government, but not to take chances that might jeopardize the attainment of their subsistence baskets (Ibidem: 64).

In the crop-year 1970/71, the seed distributed as credit in kind to Tunisian peasants failed to germinate because they were unsold and untreated leftovers from previous years. This, accompanied by late rains and the fact that peasant husbandry fell short of that necessary for the Mexican varieties, led to complete disillusionment among the Tunisian peasants. In the following year, they abandoned the HYVs in favor of their traditional varieties (Ibidem: 63).

LEARNING FROM PAST EFFORTS

In light of the current focus on the small farmer, it is essential that development planners review and learn from past efforts in the field of small farmer agricultural development. Four projects or programs that have been studied intently because of the lessons they provide for development planners include the FAO Fertilizer Program,

the Etawah Pilot Project, the Puebla Project and the Caqueza Project.

FAO Fertilizer Program

The FAO Fertilizer Program, which was launched in 1961 as one of its Freedom from Hunger Campaign Projects, is described by Rainer Schickele as a very promising prototype for the introduction of technical innovations since it is financially and administratively easier to expand rapidly the production and distribution of fertilizers than it is for improved crop varieties and some of the other "package" practices (Schickele 1968: 273, 276). Fertilizer can be easily applied in any quantity and in any combination of nutrients on the fields of small farmers; its effects, which are usually dramatic, are able to be observed in a relatively short period of time (Ibidem: 274). This makes the use of fertilizer a good "spearhead" for the introduction of technical innovations. Farmers who have experienced firsthand the benefits of fertilizer are much more likely to adopt a "package" of innovations, even if there is considerable risk involved (Ibidem: 276; Yudelman et al. n.d.: 43). A fertilizer program is not to be used in lieu of, but rather as a first step toward the introduction of, a "package" program (Schickele 1968: 276). Indeed, fertilizer use should always be followed up with complementary practices as soon as possible, particularly

when experience shows that the effectiveness of the fertilizer is being reduced by the lack of a responsive crop variety or of inadequate pest and moisture control (Ibidem: 275-276).

Since the whole purpose of a fertilizer program is to convince farmers to use fertilizers as a regular agricultural practice, fertilizer demonstrations must be followed up by making available to farmers in their communities the required kinds and quantities of fertilizers at prices they can afford. As most small farmers are not able to pay cash for fertilizer, the program must, however, also assume responsibility for providing effective credit at terms affordable to the farmer. The FAO Fertilizer Program has organized pilot schemes for fertilizer distribution and credit in select areas where demonstrations have been conducted on farmers' fields and where farmers have appeared willing to use fertilizer on their own. In these pilot schemes, based primarily on donations from the fertilizer industry or government donor agencies under the FAO Freedom from Hunger Campaign, the government designates an agency with adequate extensionists to be responsible for the sale and transport of the fertilizer to farmers. After a period of three years, however, local merchants, cooperative organizations or private businesses are expected to carry out the

function of fertilizer distribution in the area (Ibidem: 286-287).

Government action in the area of fertilizer distribution is vital in the early stages of a fertilizer program when local merchants will not yet be equipped to handle and store fertilizers and when agents from commercial firms will not yet be present in the project area. If the government does not make the right kinds of fertilizer available at the local level when they are needed and at a reasonable price, the demonstration effect will be for naught; fertilizer consumption will not reach the level necessary to induce commercial firms and local merchants or cooperatives to undertake the role of providing and distributing fertilizer (Ibidem: 286).

Etawah Pilot Project

The Etawah Pilot Project, which was launched under the direction of the American engineer Albert Mayer in 1948, is still considered one of India's greatest successes in its efforts toward rural reconstruction. Indeed, the project was responsible for the beginning of a whole new chapter in the history of rural reconstruction in India; it has provided a pattern and has been a source of inspiration to many development planners engaged in the monumental task of rural uplift in the great Indian subcontinent (Pande 1967: 157, 164).

Admittedly, much of the success of Etawah can be attributed to the personality of its director Albert Mayer. Mayer felt himself to be on equal ground with all others; thus, in marked contrast to the British Indian Civil servants, he mixed on equal terms with the highest official to the lowest village-level worker. This attitude, which gave a new status to junior workers and a new vision to senior ones, helped to bridge the gap between the "high" and "low" and contributed to the development of a strong close-knit team which worked together with devotion. Furthermore, Mayer is said to have had complete sympathy with the Indian way of life. He mixed freely with the farmers, working alongside them with no contempt for "dirtying his hands" in the fields. Other staff members followed Mayer's example and by working with the people they gained their respect and friendship, a feature conspicuous by its absence in earlier rural development schemes sponsored by the government. As an engineer, Mayer knew, or was at least aware, of the technical aspects of the work; and as an ex-army man he possessed the necessary executive capacity for directing a major development effort. He saw to it that his workers were made keenly aware of all aspects of the project. Mayer also capitalized on his relationship with the Chief Minister, Pandit Pant; being able to obtain necessary supplies without going through much of the proverbial red-tape

prevented many delays that might have occurred otherwise (Ibidem: 165). Not bound by any set of rules, Mayer could afford to be flexible, and he often allowed himself to be guided by his own hunches; he effectively utilized his freedom to experiment (Ibidem: 166).

The organization of the project team significantly affected the success enjoyed by the Etawah project. In undertaking the project, Mayer first acted on his belief that to attempt to affect changes on the part of the "project participants" would first require a change in the psychology of those government officials who would be involved, in one way or another, in the project. Mayer envisaged and worked toward an administrative structure in which those at the highest level respected those at the lowest level, and all had a chance to be heard and to actively participate in the decision making process. That bosses and subordinates could become joint crusaders in the cause of rural development was, even in 1948, a new notion; for in all the years of colonial rule, subordinate officers had been expected to take and act upon orders from above without comment. Mayer's system of "inner democratization" worked remarkably well, however; the team spirit exhibited by government officials involved in the project was noticed by local community members and helped to create a healthy atmosphere for development work (Ibidem: 158).

A key member of Mayer's development team was the "multi-purpose village level worker," who was responsible for a variety of activities at the village level. Though the concept of utilizing this type of worker was not new, the effectiveness of Mayer's village level worker was enhanced by the training he received in the methods of the "village approach"--the art of making friends with local community members and enthusing them for village work by means of community meetings and individual discussions. Unlike the "traditional" village level worker, Mayer's were paid a higher salary, were afforded a higher status and were assigned a more reasonable territory of responsibility. Furthermore, they were not, as so many before them had been, mere propogandists of the Government (Ibidem: 159).

Mayer's development team also included a "Rural Life Analyst," a trained sociologist whose job it was to come to an understanding of the actions and the thought processes of the potential project participants. Based on his understanding of the local situation, the rural life analyst was to assist the technical experts of the team in choosing the best time and most suitable activity for a particular locality (Ibidem).

The most important part of Mayer's program was to build mutual confidence between villagers and project workers. Since he felt this could best be accomplished by showing visible results, Mayer had the project workers

concentrate first on helping to meet the simple felt needs of the community--things that the people wanted to be done and that would show fairly quick results. Success in meeting the community's simple felt needs would result in a level of confidence between villager and project worker that would eventually allow for work in the area of induced felt needs. At any rate, the program would always proceed only at that pace considered to be acceptable to, and within the capabilities of, the local community (Ibidem: 160).

Unlike those involved in many earlier development schemes in India, Mayer did not attempt to supplant indigenous culture, but rather to use it in a positive way in furthering the development effort (Ibidem). He sought to achieve the participation of villagers in their particular cultural context through harnessing the established village institutions and by making full use of discussions, meetings, dramas, folk-songs, literacy classes, farmers' fairs, et cetera. The Adult Literacy Teacher, who was paid a small honorarium for propagating the philosophy of the development program, became a useful ally. Also, a special Hindi newspaper was published fortnightly to allow for greater communication within the villages themselves and between the project team and the villages. The newspaper, which focused primarily on the day-to-day problems of the village and the details of the

various development activities, offered a forum through which local community members could express themselves (Ibidem: 161).

Why was the Etawah Experiment considered such a success? Why had it succeeded when so many others had failed? After all, in its basic ideology the project offered nothing new; everything introduced at Etawah had been tried before elsewhere; its slogans and methods were pretty much "old hat." The success of Etawah, according to Mayer himself, was due primarily to the fact that the old slogans and methods (such as development of all aspects of life, helping people to help themselves, working with the people, appointing village level workers and conducting demonstrations) had been systematized in the experiment to the point that they were indeed achieving what development planners had always "said" they could (Ibidem: 164).

Puebla Project

The Puebla Project is significant, not so much for its contribution to agricultural development in Mexico, but for the valuable lessons that it has provided for those involved in the work of agricultural assistance throughout the world. As is so often the case, it was not the success but rather the near failure of the Puebla project that led to the discovery of some important principles that dramatically changed the direction of the project and

provided insights into the development process that have proven invaluable to development planners.

Though CIMMYT (International Maize and Wheat Improvement Center) had reported an average increase of thirty percent in maize yields for project participants between 1969 and 1972 (Whyte and Boynton 1983: 37), the organization estimated in 1973 that only twenty-six percent of the land used for maize production was covered by the Puebla program. Mexican professionals, deeply concerned about the declining rate of adoption of CIMMYT recommendations, began to investigate the situation. Surprisingly, they discovered that many of the farmers who had rejected Puebla recommendations, especially with regard to interplanting, were doing better than some of the project participants. Further study, focusing on the more successful nonadopters, led project personnel to a renewed belief in peasant rationality and to a discovery of the many advantages that can accrue when project personnel take the time to learn from the farmer (Ibidem: 38-39). According to the general coordinator of the project from 1970 to 1973:

> In Mexico we had been mentally deformed by our professional education. Without realizing what was happening to us, in the classroom and in the laboratories we were learning that scientists knew all that had so far been learned about agriculture and that the small farmers did not know anything. Finally we had to realize that there was much we could learn from the small farmers (Ibidem: 39).

Why had the planners of the Puebla project not recommended the interplanting of corn and beans from the very beginning? How could they have overlooked the obvious advantages of interplanting? Asking themselves these questions, the project planners came to the conclusion that they had failed miserably in the area of local adaptation; they had simplistically assumed that what would work for corn farmers in Iowa would work for farmers in Mexico. Knowing that interplanting was not an appropriate practice in the corn belt of the United States, they had discouraged the practice in Mexico. They had automatically recommended United States planting practices without recognizing that the logic of the United States-style row spacing (which does not permit interplanting) was keyed to the use of the tractor, an agricultural implement that was not widely used by, and not appropriate for, the small farmers in Mexico. As project planners began to see the error of their ways, made obvious by the success of farmers who disregarded project recommendations and interplanted corn and beans, the direction of the Puebla project dramatically changed. The field staff began to make more of an effort to learn from the farmers; they soon abandoned their single-track strategy, concentrating on maize, in favor of a strategy that made available to the farmers packages of production practices for the maize-bean association (Ibidem).

Caqueza Project

The Caqueza project in Colombia is also among the largest and most famous development projects that, like the Puebla project, is significant not so much for its impact upon small farmers in Colombia but, more importantly, for the lessons it provides for development planners everywhere. The authors of the Caqueza project credit the Puebla project with being their primary inspiration; they are quick to point out, however, that they did not simply follow the Puebla design, but rather took advantage of the lessons that had emerged from the less than totally "successful" Puebla project (Ibidem: 40).

The Colombian project was based on the premise that a broad and integrated approach should be utilized in agricultural and rural development efforts aimed at benefiting the small farmer; Caqueza planners, then, started with the premise to which the planners of Puebla had ultimately come. Though maize was a major crop in the Caqueza area, as in Puebla, Cequeza personnel planned from the outset to work with a variety of crops and to experiment with intercropping. Like the Puebla planners, they saw the provision of agricultural credit as an important goal. Cequeza planners, however, expanded their goals into areas outside the "agricultural" realm (such as health and education) that had not been addressed in their

Mexican counterpart to small farmer development. They also took special measures to fit their project into the existing framework of agricultural R & D agencies in Colombia. Though troublesome at times, the initial and continued involvement of the project with the national government helped to build useful Caqueza strategies into government programs (Ibidem: 41).

Caqueza planners, in marked contrast to the Puebla planners, did not assume in the beginning that they knew what would be of benefit to the small farmer and that they could simply adapt known technology to local conditions. In fact, most of the first year of the project was devoted to research on the actual farming practices and problems of the small farmers. This period of exploratory research proved to be an extremely important part of the project as it led to findings that greatly affected future activities. Early on, for instance, project leaders recognized that the promotion of hybrid corn varieties in the area would be a serious mistake, as these varieties would not only require substantial fertilization but also better ecological conditions and better cultivation and storage practices than were evident in the project area (Ibidem: 42). By the end of the first year,

> the old extension approach that considered communication of the new technology to farmers as the only activity required was being forgotten . . . and replaced by the idea that more had to be known about the farmers' present production

> system before anything could be done about changing it (Ibidem: 43).

First year findings made Caqueza professionals increasingly aware of the necessity of socioeconomic, as well as agronomic, knowledge (Ibidem).

The importance of considering the interests and needs of the local community was another lesson learned by Caqueza leaders. On various occasions they were made aware of the fact that farmers' priorities are definitely not all production oriented and that neglect of farmers' priorities, whatever they may be, greatly reduce the chance of project success with respect to production activities. When farmers and their families feel that project leaders are insensitive to what they need and desire, they are not likely to be receptive to suggestions from project staff (Ibidem: 44).

The Caqueza project is noteworthy also for the special attention it assigned to learning more about the risk constraint of small farmers. Project research led the staff to make a distinction between production and price risks, which could be handled through insurance schemes, and institutional risks, which do not lend themselves to such measures. To be sure, insurance schemes may be deemed too expensive for a developing country, but they do, at least in theory, provide an economic solution for price and production risks. Institutional risks, epitomized by such

problems as obtaining credit when needed and by the near impossibility of obtaining insecticides and fertilizer packages in quantities small enough to be economically used by the small farmer, appear to have no real solution. When considering the recommendations of the agricultural professional, the farmer does well, therefore, to consider not only production and price risks but also those caused by institutional inefficiencies that may very well prevent him from being able to put a package together in a timely manner in order to achieve a "hoped-for" result. In light of their research, the need for giving attention to the organizational problems that give rise to institutional risks became a major concern of Caqueza professionals (Ibidem: 45).

As is so often the case, one of the major lessons learned in the Caqueza project resulted from a crisis situation. Farmers, acting upon project recommendations, were able to tremendously increase their production of cabbage. Unfortunately, there was no local market in which to sell the surplus, and angry farmers organized a demonstration and dumped sacks of their cabbages on the doorstep of the project's office. The project's staff averted the cabbage crisis by trucking the produce to the Bogota market. Learning from the crisis, project personnel began to place greater emphasis on marketing (Ibidem: 44).

DO WE REALLY LEARN?

Though it is heartening to read of instances in which the lessons learned in one project are incorporated into another, the unfortunate reality is that this does not occur as frequently as one would expect. Indeed, in analyzing United States government programs conducted under the auspices of the Agency for International Development (AID), William and Elizabeth Paddock concluded that "AID has no memory (1973: 11)."

> AID programs constantly are scrapped, abandoned, or started anew--or forgotten. Budgets are cut and then, as an alibi, Washington primly says it is time for the local government to 'take over.' The local government, however, usually has neither the money nor the talent (nor, sometimes, the interest) to take over. Thus another orphan program joins the graveyard.
>
> New foreign aid directors arrive in the capital and sweep the decks clean and begin anew. Back home a president is elected and his new foreign aid administrator also sweeps clean. No one takes the time to learn. What preceded? Did it fail? Did it succeed? Why?
>
> A long-time AID friend says, 'Every morning we wake up and laboriously reinvent the wheel (Ibidem).'

CHAPTER III

LITERATURE REVIEW

PART TWO

LOCAL COMMUNITY INVOLVEMENT

Of all of the lessons provided by years of experience in the field of agricultural assistance, the one that seems to stand out above all others is the need for local community participation in projects aimed at improving the lives of the small subsistence farmers. Unfortunately, local community participation has not always been viewed as an essential ingredient of a successful agricultural program. Indeed, it has taken years of neglect in the area of community involvement and of overwhelming failure in projects aimed at agricultural development for development planners to begin to recognize the correlation between local community participation and project success. Participation may not ensure project success, but no involvement on the part of the local community will almost certainly lead to project failure.

Two of the most definitive studies on the issue of local community involvement are Roland Bunch's Two Ears of Corn and Morss et al.'s Strategies for Small Farmer Development. The insights into the development process provided by these two publications certainly warrants a

thorough examination of the publications by development planners.

Two Ears of Corn

Roland Bunch, who has been extensively involved in development efforts primarily through the World Neighbors organization, places local community participation at the very heart of the development process. He openly admits, however, that his current view of development has largely evolved in response to the failures experienced by World Neighbors in the field of agricultural development (Bunch 1982: iii-iv).

In his recent book Two Ears of Corn, Bunch gives an account of the first program supported by World Neighbors in Latin America some twenty years ago. The village involved had been given a thresher, a huller and a tractor to be utilized in their production of rice. Project personnel had organized a cooperative to market the rice downriver, and in the first year of the project they had brought tons of rice to the village cooperative where it was hulled and sold at the highest price the farmers had ever received. The project had even provided the village with a generator so that the area featured electric lights for the first time ever (Ibidem: 18).

The project, like so many of the first efforts in the field of agricultural development, ended in failure. In

his visit to the project site some six years after the project's official termination, Bunch found that none of the work begun in the project had been continued. The motor which operated the thresher and huller had broken down and had never been repaired. Though the huller might have been used if the motor had been repaired, Bunch found that the thresher had never been used at all because the farmers preferred to thresh the rice in the field. The tractor had also broken down, and the generator had been covered in mud for years. The cooperative had completely disbanded, and its building, though the largest in the village, was run down and serving no useful purpose (Ibidem). In walking through the village, however, Bunch was amazed to hear the pleas of the people: "But if World Neighbors would just come help us again, we could do so much (Ibidem: 19)!"

Project descriptions such as this abound in the literature. In describing the origin, development and problems of village community projects in India, V. P. Pande gives the following account of the famous Gurgaon Experiment, a detailed scheme of rural reconstruction in India developed by F. L. Brayne in the 1920s (1967: 136).

> . . . [T]he immediate results of the Gurgaon Experiment were impressive, but if we take a long term view we find that the experiment was just like the glow of a glow-worm. . . . M. L. Darling, who toured the district in January 1929, seven months after Brayne's transfer, noted that the experiment had already suffered partial

> collapse. The manure pits were filled less assiduously, the villages were cleaned only to be shown to some visiting officer, more than seventy-five per cent of the iron-ploughs were out of use, co-education was dissolving and the Hissar bull was getting unpopular.
>
> The main reason for the rapid collapse of the experiment was that the reforms came not from within but were imposed from without (Ibidem: 142).

"Give-away" programs are not only ineffective, but are, as these two examples show, positively detrimental. When villagers associate progress with being given things, they begin to feel that they are incapable of accomplishing anything on their own. Furthermore, give-aways prevent people from seeing the need for solving their own problems. According to one oft-cited metaphor, "you can give people so many fish that they lose all interest in learning to fish (Bunch 1982: 20)." It has also been found that people become accustomed to give-aways to the point that they expect them to be forthcoming. In many cases, people who have at one time been the passive recipients of aid actually feel they are being "cheated" when they are asked to buy some of the things that had previously been provided free of charge (Ibidem).

"Give-away" programs are detrimental, not only to the "beneficiaries," but also to the agencies involved in administering the programs. First, they are very expensive; providing a family with food year after year can soon become much more costly than teaching that family how

to grow more food (Ibidem). Secondly, give-aways often hide indifference to program efforts. Villagers may faithfully attend classes for years, not because they ever intend to incorporate what they are learning into their everyday practices, but rather because they anticipate an occasional give-away. The uselessness of the training may not become apparent for quite some time, so that much time and effort, not to mention money, is wasted on an endeavor that will never reap the benefits for which it was intended. Thirdly, give-aways are not conducive to the multiplier effect. Local farmers will rarely try to teach an innovation to their neighbors if they feel that adoption of the innovation is contingent upon inputs that must be supplied by project personnel (Ibidem: 21).

The closing statement in Roland Bunch's account of World Neighbors' first agricultural program in Latin America summarizes well the devasting impact of give-away programs; for the tragic end to Bunch's story, and to all such stories, is that the community involved began to associate development with things that are done by outsiders. Rather than giving the people confidence in their own ability to accomplish something, the paternalistic give-away program had resulted only in a heightened degree of dependence upon outside persons and institutions. All of the "outward" signs of development--machines, buildings, et cetera--had been given to the

people; unfortunately, however, these very things served only to further enslave them (Ibidem: 19). Julius K. Nyerere once stated:

> Development brings freedom, provided it is development of people. But people cannot be developed; they can only develop themselves. . . . A man develops himself by joining in free discussion of a new venture and participating in the subsequent decision; he is not being developed if he is hearded like an animal into a new venture (Finucane 1974: dedication page).

Fortunately, local community participation is now being recognized, at least in theory if not in practice, as an essential ingredient of project success. Though few disagree on the general issue of local community involvement, there does appear, however, to be some divergence of opinion with regard to what constitutes "involvement" and what the degree of "involvement" should be. Roland Bunch is quick to point out that it is the quality, rather than the quantity, of participation achieved that is most important for project success (Bunch 1982: 29).

Some very important principles, often overlooked in brief references to local community involvement, emerge in Roland Bunch's description of how to improve the quality of participation in agricultural development programs. Participation, according to Bunch, is not, in and of itself, the key to project success; for participation is not inherently good. It can be destructive, dividing and

tearing down, rather than constructive, uniting and building up. If not kept constructive, participation can preclude rather than produce development. The major role of those engaged in projects aimed at agricultural development is, then, to strive to improve the quality of participation, to keep it as constructive as possible (Ibidem).

In most cultures constructive participation is an art that must be learned gradually as it requires a surprising number of skills and a certain minimum degree of mutual trust, honesty and concern for others. Caution must be exercised, therefore, in attempting to correlate project success to the initial degree of "project control" exercised by members of the local community. The assistance of outside personnel, though harmful when extended in the sufficating paternalistic and "expert knows all" attitudes of the past, can be extremely beneficial during the time in which community members are learning how to handle constructive participation (Ibidem: 30). If development is indeed a process whereby people learn to take charge of their own lives and solve their own problems, then they must be given sufficient time to learn (Ibidem: 28). Though a legitimate and necessary long-range goal in all development programs, "community control" must not necessarily be expected in the initial stages of project implementation (Ibidem: 30).

According to Roland Bunch, the size of a program during its first year or two of operation is often an important determinant of its potential for success, especially with regard to the degree of community participation achieved. In most cases it is best to start small and allow the program to develop at its own pace. Starting small affords a degree of flexibility that can rarely be achieved in large programs, and modifications can be made to small programs at less expense and without harming the credibility of the program (Ibidem: 78). The "personal" approach that can only be achieved in a relatively small program encourages villager participation and feedback, and the flexibility of small programs allows modifications to be made in response to villagers' feedback. This in turn fosters further community participation. Also, in a small program individual efforts are more likely to be recognized, and villagers are able to see the results of their efforts. Most importantly, in a small program as opposed to a large program: "The people's hoes and shovels are not made to look ridiculous by program tractors and earthmovers, nor their nickles and dimes by the program's thousands of dollars (Ibidem: 79)."

Strategies for Small Farmer Development

Strategies for Small Farmer Development, published a full decade ago, represents a "pinnacle" of achievement in

the field of small farmer development. This publication, it would appear, has been noted and/or quoted more often than any other with regard to the issue of local community involvement; it is, without a doubt, one of the most impressive studies of agricultural development ever undertaken. Strategies was prepared by Development Alternatives, Inc. under contract to the Agency for International Development. The director of the study, Elliot R. Morss, was assisted by John K. Hatch, Donald R. Mickelwait and Charles F. Sweet. The "specialized" knowledge and the field work contributed by these three individuals should be emphasized as their individual contributions are sometimes lost in references to the "Morss et al." study.

What was the major finding of the Morss et al. study? In analyzing possible key determinants of agricultural project success, Morss et al. concluded that overall success was most affected by "the Local Action taken by small farmers to complement outside development management and resources (1976: 203)." Local action--farmer involvement in project decision making and farmer resource commitment (Ibidem: 31)--was found to significantly increase the small farmer's self-help capability, increase the small farmer's acquisition of agricultural knowledge (Ibidem: 32), and increase the probability that the

benefits of the project will be self-sustaining (Ibidem: 33).

Upon ascertaining the overriding importance of local action as a key determinant of project success, Morse et al. carried their study a step further and attempted to identify, through quantitative and qualitative means of analysis, those elements necessary for generating effective local action, both in terms of involving farmers in project decision-making and of securing farmer resource commitments. Since the securing of farmer resource commitments was found to be significantly increased with the existence of a "shared" decision-structure between farmer and project staff, it became most important to determine those factors which would be most likely to increase farmer involvement in decision-making (Ibidem: 207).

As there is a natural tendency for rural people to distrust strangers and strange ideas, a gap will normally exist between agricultural development planners and the community for which the development effort is being planned. The gap will normally remain and development will be hindered unless members of the local community are allowed to become involved in the decision-making process. But how is this involvement to be achieved? First and foremost, according to the findings of Morss et al., there must be an effective two-way system of communication

between project participants and the project staff. Proper channels of communication can bring project staff and project participants together in a manner that can be achieved in no other way (Ibidem: 40-41, 45). When allowed to express their felt needs and the problems they have, farmers become a part of the project and the natural gap that exists between them and the outside project staff begins to close. Early involvement on the part of project participants in helping to define needs and priorities also increases the likelihood that they will, at some point, actually accept the changes that may be necessary to meet their greatest needs (Groce 1983: 35). Though expatriates can provide important ideas, the ultimate test of "any expatriate contribution must always be whether or not it is manageable enough for local people to handle and whether it is valuable enough, according to local priorities, for them to be willing to sustain it (Stamp 1977: 42)."

While successful projects are often originated on the basis of ideas that have not been generated locally, the input of the farmer is critical in tailoring imported ideas to meet local conditions and in deciding how they will be implemented (Morss et al. 1976: 62-63). Indeed, since project participants are intimately familiar with local circumstances, they are in a position to make key contributions in the process of project design and implementation (Hunter 1978: 31). Farmer participation

should be encouraged by the project staff, then, not for the sole purpose of "gaining a hearing" in the local community, but because farmers are valuable sources of information (Technologies 1981: 151).

True development is possible only when the "outsider" allows the farmer sufficient time to realize his needs and work toward discovering those solutions that will result in his needs being more fully met. The role of the "outsider" is to assist the farmer in this process of discovery; he is not to instigate his own plans by merely dictating to the farmer what he feels should be done. The "outsider" can advise and encourage, but the farmer must motivate himself toward development and must participate fully in the creative process of development (Stamp 1977: 89-90). Indeed, in the Morss et al. study, domination by either the farmer or the project staff was normally found to be an inferior arrangement to that of sharing project responsibilities--a finding that coincides with Roland Bunch's emphasis on the need for allowing community members a sufficient amount of time to learn the art of constructive participation (Morss et al. 1976: 207).

In the findings of Morse et al., the existence of functioning local organizations or groups appeared to be a significant factor, along with the existence of an effective two-way system of communication, in generating local involvement in both the design and implementation

stages of agricultural projects (Ibidem: 93). When correlated with the component parts of overall success, local organization was found to be an important mechanism for increasing the problem-solving or self-help capability of small farmers; for increasing the probability that project benefits would be self-sustaining; and, to a lesser degree, for increasing the small farmers' acquisition of knowledge (Ibidem: 95).

The importance of local organization is evident in the specific functions that they can help to perform. The development of a two-way system of communication between project staff and farmers, already noted as an essential ingredient in achieving local community involvement in the decision making process, is much more likely to occur, for instance, when local organizations are used or are created as "points of contact." In areas where farmers are constrained by poor delivery and market systems, local organizations can facilitate the provision, integration and administration of these services. Local organizations can serve as vehicles for encouraging and reinforcing the behavorial changes in the small farmer's adoption of new agricultural practices. The process of acquiring agricultural knowledge can be significantly enhanced when farmer training is conducted through functioning local organizations. In addition, local organizations can be used to facilitate and enforce risk-sharing arrangements

which may be necessary in localities where weather, prices or necessary project services are uncertain (Ibidem).

In determining the organizational strategy to be utilized in an agricultural project, several key factors must be considered. The first factor, disparities in landholdings and income within the project area, is of particular importance in projects aimed primarily at benefiting the small farmer (Ibidem: 96). If significant disparities do exist, local organizations must be shaped in such a way to ensure that the small farmers, rather than the larger ones, will actually reap the benefits of the project. Incorporating already existing local organizations into the development effort may not be possible, therefore, in project areas where the existing organizations are dominated by, and primarily serve, the large farmers. In building organizations with a small farmer focus, one or more of the following measures may have to be taken: restricting membership to a landholding size which excludes the larger farmer; increasing the cost of services (including credit) until large farmers find lower cost alternatives; and putting an upper limit on the level of services (including credit) to be provided so that they are appropriate only for the amount of land a small farmer could maintain (Ibidem: 212).

The level of development in the project area is a primary determinant of those functions which a local

organization will need to perform and, therefore, must be given due consideration in organizational strategy. In areas where local farmers have ready access to agricultural services, limited purpose organizations are normally required. Multi-functional farmer organizations may be necessary, however, to reduce the uncertainty associated with new technological packages in localities characterized by an absence or scarcity of vital agricultural services (Ibidem: 98).

The attitude of the host government toward local organization, particularly if it is negative, must also be assessed in the determination of an agricultural project's organizational strategy. The project may be forced to focus on individuals rather than on groups, for instance, in a highly politicized atmosphere where any attempt at organization is viewed with suspicion by government authorities (Ibidem). Whatever the attitude of the government toward farmer organizations, steps should be taken to ensure that misunderstandings and suspicions are not aroused. There should be no hint of political motivation; for in some LDCs farmer groups are suspect in the eyes of the government (Campbell 1979: 74) "on the theory that farmers who get together to improve agricultural production might later turn their attention to something less benign (Streeter n.d.: 22)."

Another significant factor affecting the choice of organizational strategy is the degree of social mobilization in the project area--that is, the extent to which small farmers participate in local organizations, and the availability of local leaders. When there is a high degree of social mobilization, it is more likely that a project will be able to integrate its activities into the existing organizational structure, particularly in an area where a non-traditional organizational network has been established and fully developed. In localities with a high degree of social mobilization through traditional institutions and networks, the points of intervention for a new project are not quite so clear; a considerable amount of time may have to be spent in identifying patterns of cooperation before an appropriate organizational strategy can be formulated (Morss et al. 1976: 97).

The advantages that can accrue to farmers working in groups, accomplishing together what they could not possibly accomplish as individuals, are evident in rural development projects that have successfully utilized and/or created local organizations in the process of project design and implementation. Bringing farmers together in a group situation is not easily accomplished, however, in project areas characterized by very low levels of social mobilization. In fact, unless extreme care is taken, more harm than good may result from attempts at organization

building in areas where small farmers have traditionally not participated in local organizations; for an apparent lack of "cooperation" among project participants may be attributable to several factors, only some of which may be readily discernable. Development workers must be particularly sensitive in the area of organization building; they must be willing to tailor their organizational strategies to "fit" the circumstances that exist in each and every project locality. Above all else, the development worker must seek to be a "fosterer," rather than an "imposer," in the area of organization building; for imposed organizations, in which groups of people have normally been "banded together quite artificially," stand little chance of creating a spirit of cooperation in communities where none has previously existed (Stamp 1977: 134-135).

LOCAL COMMUNITY INVOLVEMENT IN THE CHOICE AND APPLICATION OF TECHNOLOGY

Agricultural project success is tremendously enhanced by involving local farmers in the choice and application of the technology to be utilized in the project; for when farmers are given the opportunity to actively participate in both the research and extension functions, they are much more likely to adopt new and improved production techniques and/or farm management practices. The early testing of research results in on-farm trials and the demonstration of

improved farming techniques on the farmer's own land are far more effective methods for developing appropriate and adoptable technologies than are the testing and demonstration of new techniques in experiment stations (International 1978: 32). An application that attains excellent results at an experiment station is not a good recommendation if it fails under practical farming conditions (Schickele 1968: 263). While there is certainly a place for "laboratory" experimentation, then, there is a much greater need for on-farm research since most production problems in Third World countries are location specific and cannot, therefore, be adequately addressed in district experimental fields or in laboratories. Furthermore, a determination of the future acceptability of new techniques and farm management practices can be made more rapidly and with greater accuracy when the reactions of farmers can be evaluated firsthand through trials on the farmers' own land (Ibidem: 262; International 1978: 32).

After completing a study for the Rockefeller Foundation on agricultural development programs aimed at benefiting small farmers in various Third World countries, Carroll P. Streeter concluded that the most effective means of persuading small farmers to adopt technology is through the technique of demonstration on the land of a typical local farmer. According to Streeter, the farmer's need for "proof that what is being offered [him] is a real

improvement, and that [he himself] can use it" is best satisfied when he is given the opportunity to observe a "field trial carried on by a farmer like himself on a farm much like his own (Streeter n.d.: 69)."

Local community involvement through farmer participation in farm demonstrations was a real key to the initial success of the Puebla Project in Mexico. By locating high-yielding plots on ordinary farms within easy reach of nearly every farmer, farmers in the project area were able to observe and to discuss the progress of the plots on a continual basis. This had the effect of speeding the process of technology adoption in a way that would not have been possible if the farmers had been forced to wait for several months to learn of the results from a bulletin (which they might not have been able to read anyway). Utilizing neighborhood farms helped to alleviate the natural suspicions of the farmers with respect to new agricultural techniques and practices; by seeing that the crops on the demonstration plots were being grown on soil very much like their own, and under the same conditions that they themselves faced, farmers were much more willing to try the new methods. Had experimental plots been confined to a distant experiment station, many of the Puebla farmers either would not have been aware of the new technologies or would have suspected the experiment station

of being a "special" place, which indeed it might have been. The integration of the research and extension functions, by conducting agronomic experiments on the farmers' own land rather than in the isolation of an experiment station, was a feature of the Puebla project that accounted for much of its success (Ibidem: 9; Biggs and Tinnermeier 1974: 152; 165-166). Indeed, improvement in the agricultural sector is certainly enhanced when "the cultivators' fields become widely dispersed little laboratories for the scientist, demonstrations for the extension worker, and a direct involvement in progress for the farmer (Schickele 1968: 267)."

The Fao Fertilizer Program, launched in 1961, was based largely on a system of trials and demonstrations on the fields of farmers. In fact, any country wishing to participate in the program had to agree to undertake a minimum of five hundred demonstrations and trials on cultivated fields annually. FAO furnished one fertilizer expert and a vehicle for each country and all, or at least a significant proportion, of the fertilizer required for the trials and demonstrations. In return, the government of each country participating was required to assign an adequate number of field extension workers to the project who were to be supported in their effort by the senior officers in extension and research (Ibidem: 277). In 1965/66, approximately 4,700 government workers in twenty

countries were involved in the fertilizer program under the guidance of twenty-three FAO experts. According to the FAO project leaders, this was the first time that many of the extention workers had ever visited individual farmers on a continual basis, actually entering into dialogue with them and allowing a relationship of mutual respect to develop (Ibidem: 278).

In addition to training courses for field officers and field days for farmers, much on-the-job training occurred in the FAO Fertilizer Program. Farmers were involved in laying out plots, weighing and controlling the application of fertilizer treatments, harvesting and weighing the crops, and recording results and observations for each demonstration and trial. To spread this experience of on-farm training as widely as possible, and to cover ever larger areas with the positive effects of trials and demonstrations, the demonstrations were conducted on different farms each year. Former participants were, however, encouraged--and assisted, if necessary--to continue to use fertilizer and to help spread the innovation throughout their community. Indeed, the involvement of local community members was a central feature of the FAO Fertilizer Program (Ibidem: 279-280).

In the FAO Fertilizer Program, roughly eighty-five percent of cultivator fields served to demonstrate the effects of fertilizer adoption while only fifteen percent

were utilized as experimental plots. Governments, reflecting their belief in the general applicability of experiment station findings to practical farming conditions, were anxious to achieve as many demonstrations as possible; FAO experts, on the other hand, fought hard for more trial fields so that they could better identify the most efficient fertilizer treatments. It is indeed a difficult task to determine the most appropriate proportion of trials to demonstrations. Demonstrations are simpler and cheaper to conduct, and even if they do not at first use the "best" treatments, they will normally still show profitable yield responses. As their name suggests, however, demonstrations are intended to demonstrate something that is already known and tested, and they should, therefore, be based if possible upon considerable trial data from which the most efficient treatments have been chosen for wide demonstration (Ibidem: 281)

The results obtained from demonstration reports for the first years of the program were quite impressive (Ibidem: 282). These figures must not, however, be allowed to obscure one very important fact: reports were not received for thirty-eight percent of the demonstrations. What was the outcome of these demonstrations? Were they abandoned and, if so, for what reasons? If the farmer cannot identify any external cause for the failure of his demonstration, then he will in all likelihood, and often

with just cause, associate his failure with the extension agent who he will assume was trying to "sell" something that obviously does not work. The distrust that can arise as a result of an unsuccessful demonstration may be more difficult to overcome than the original wariness that the farmer might have felt at the beginning. Extra effort must be taken, therefore, toward reducing the number of unsuccessful demonstrations and toward acquiring at least some data from each and every demonstration so that problem areas can be identified and dealt with in subsequent demonstrations (Ibidem: 284).

Field days, which are held periodically on demonstration plots for the purpose of bringing farmers together to see and discuss the results of applying new techniques, are also more effective when local farmers, rather than "outside" personnel, are actively involved in the day's activities. The increased responsiveness of farmers when some of their "own" are involved in field day activities was clearly evident in the experience of the Puebla Project.

> Though a project expert was present, he usually confined his remarks to a general discussion of the Puebla Project. The farmers listened to him politely but were too self-conscious to ask any questions. They didn't want their neighbors to think they were forward. But then the farmer who had raised the maize told what variety he grew, how thickly he had planted, how much fertilizer he'd applied, where he got his credit, and so on. The questions flew at him; this fellow was one of

> them and the farmers didn't mind asking him anything (Streeter n.d.: 9).

In observing the extension service of Kenya through the Kenya Seed Company and the Kenya Farmers' Association, Streeter found encompassed in that service the elements of farmer involvement that had contributed in such a big way to the success of the Puebla project. Men called agricultural instructors, most of whom were farmers themselves, were being utilized at the local level as the service's extension agents. Their main efforts as extensionists involved trying new techniques and farming practices on their own farms first, and then allowing their home farms to serve as neighborhood demonstrations. On special field days the extensionists who had actually raised the crops, rather than "outside" experts, were the ones to lead in the field day activities. The widespread adoption by Kenyan farmers of the new techniques and practices conveyed through a system of extension based on the concept of farmer participation was, according to Streeter, "a phenomenon I had never encountered in forty years of agricultural reporting around the world (Ibidem: 45)."

Extension systems like that of the Kenya Seed Company are, unfortunately, the "exception rather than the rule" in Third World countries. In actuality, extension services in most LDCs do not serve as an effective link between the

researcher in the experiment station and the farmer in the field. The following section will focus on the problems of agricultural extension that are most common to all developing countries.

EXTENSION

Though agricultural research continues to be a priority need in all developing countries, much attention (at least in the literature, if not in practice) has been focused in recent years on the need for extending, as well as developing, appropriate technology; a country's agricultural research program will be of little use if there is no corresponding extention service to take the improved technology to the farmers in the field. Indeed, in many Third World countries the research scientists are far ahead of the extension people--a disturbing reality when one considers how lacking most LDCs are in the area of agricultural research (Streeter n.d.: 37).

Daniel Benor, James Harrison and Michael Baxter, co-authors of an extremely informative book on the training and visit system of agricultural extension, give an excellent summary of the basic problems of agricultural extension in developing countries. According to Benor et al., the key problem of most extension services is "the lack of a well-defined organization with a clear mode of operation and the absence of a single, direct line of

technical support to, and administrative control of, their staff (1984: 16)." The field-level extention worker must often report to two or even three supervisors. Since he is one of only a few government funtionaries operating at the local level, it is convenient to assign to the extensionist a variety of non-agricultural tasks. Indeed, the field worker normally assumes a multipurpose role in which he is responsible not only for all aspects of rural development, but also for regulatory work, procurement, and the collection of a broad range of statistical information (Ibidem: 16-17). In some LDCs, governments have even been known to use extension workers as enforcement agents, revealing an obvious lack of sensitivity and good will toward the small farmer. This "pulling of double (and conflicting) duty" significantly damages the credibility of the extension worker and undermines his potential effectiveness (Disencentives 1975: 65). In Badajoz, Spain, for instance, development authority officials were given the conflicting functions of agricultural extensionists and inspectors of products for marketing. As taxes were based on the results of the inspections, farmers in Badajoz avoided the extensionists (Weitz 1971: 88).

Extension work in many developing countries is often ineffective as the work is neither systematically planned nor adequately supervised. In general, extension agents do not have planned schedules; if extension goals are set,

they are usually too broad and unrealistic to achieve, too vague to monitor, and they bear little relevance to the local situation. Where some degree of supervision does exist, its objective is normally to see that progress is being made with respect to a number of easily measurable objectives (such as the number of demonstrations laid out or seed packets distributed) that may have little relevance to the real goals of agricultural extension. It is very rare that supervisors are given the means or the encouragement to actually conduct supervision of field staff in farmers' fields or to use supervision as a tool for improving the ability and commitment of staff personnel (Benor et al. 1984: 16-17).

Given responsibilities that are simply too broad and too vague, the extension worker is not able to perform his agricultural extension duties nor his other tasks effectively. He resorts to doing only that work which will be most closely monitored by his supervisors (such as completing reports, recording statistics, and distributing agricultural inputs), and he provides services only to the most influential people in his jurisdiction (most often those who know his supervisor). The time and the motivation to visit farmers' fields simply do not exist (Ibidem: 17).

These problems are highlighted by B. H. Farmer in his discussion of the pressures which field level extension

staff face, especially with regard to targets, reports, and input supply (1977: 162-163). According to Farmer, the official rationale for top-down targetry in extension services rests in the presumption that staff will work harder and programs will be more successful if statistics "derived from some senior imagination" are sent down through the hierarchy with the authority necessary to induce those at the bottom to try, or to try harder, to turn the targets into reality. The reality, unfortunately, is made to exist on paper only, as the achievement of targets becomes primarily a "book-keeping affair." Moreover, the error resulting from the system of top-down targetry adversly affects the morale, honesty, and credibility of village level extension workers. Given the more difficult targets (the "higher-ups" in the service tend to keep the easiest targets for themselves), many of which relate to matters outside their control, the morale of the field worker is normally very low (Ibidem: 162). The pressure to falsify and invent statistics in order to attain targets jeopardizes the honesty of the field worker. Furthermore, credibility with the public is absent or greatly lacking because farmers know that the extension worker is concerned with attaining set targets, and they doubt, therefore, his sincerity with respect to the products and practices he attempts to sell. Without reform in the extension system, the extension agent quickly

becomes discredited in his own eyes, in the eyes of his supervisors, and in the eyes of the public (Ibidem: 163).

Reporting is a corollary of targetry. The reports required from the extensionists in the field during any given year number in the hundreds; new reports, it would seem, are added frequently while old reports are rarely discontinued. The creation of an extra ministry or the undertaking of a special study often does little more than to add to the paper work of extension agents. Consequently, extensionists find themselves tied to their offices with little time available for actually getting out into the field. A most unfortunate shortcoming of the system of reporting is that the reports are often filed away and rarely, if ever, referred to again; hence, much of the information demanded of extensionists is already available in other reports that have been filed away and forgotten somewhere in the hierarchy of the service. Without reform in the extension system, the extension agent becomes a clerk (Ibidem).

Active field work by extensionists is hindered, not just because of the heavy burden of paper work, but also because extensionists in many of the developing countries have been assigned the role of "input supplier." The task of providing inputs is not only very time consuming, but it also, unfortunately, opens the service up to a significant degree of corruption. When inputs are scarce, as they so

often are, and access to them is controlled by extension staff, it becomes commonplace for farmer-customers to bribe extension staff-suppliers. Extensionists, enticed by the "profitability" of being input suppliers, find themselves tied to the stores, offices and homes where these transactions take place. Moreover, since standard bribes given at the various stages of obtaining the inputs adds to the price of the inputs, extensionists may find it profitable to assume the role of moneylender. Indeed, without reform in the extension system, the extension agent may also become a storekeeper and a moneylender (Ibidem).

Considering all these circumstances, the rarity of actual "field work" by the extensionists is not surprising. According to Robert Chambers and B. W. F. Wickremanayake, "after all these other activities and demands, advisory work is liable to be a residual, and a minor one at that (Hunter et al. 1976: 435). Furthermore, when field visits are made by extensionists, the purpose is often limited to obtaining information and maintaining mutual relationships with influential local people. Extension agents may seek out powerful political friends as this affords them a measure of security against any type of disciplinary action their superior officers might choose to dispense in their direction. Therefore, without reform in the extension system, the extension agent is locked in with the local elite (Farmer 1977: 164).

The jurisdictions assigned to field level extension workers are often excessively large both in terms of the number of farm families to be served and the land area to be covered. The difficult task of extension work is made even more difficult because extension services usually lack an adequate number of vehicles to ensure agent mobility (Benor et al. 1984: 18; Cairncross 1980: 5; Disincentives 1975: 95; Streeter n.d.: 37), and living quarters in or close to an extensionist's area of jurisdiction are usually not available. Without adequate transportation and housing, it becomes impossible to achieve the close regular contact between extension worker and farmer that is essential for successful extension. Out of necessity and convenience, the attention of extension agents is usually focused on the larger farmers who not only help them to attain their area-specific or quantity-oriented targets, but are also able to facilitate housing and other amenities (Benor et al. 1984: 18).

Extension services in many countries have concentrated heavily on demonstrations of particular crops or agricultural practices in their programs of agricultural extension. Unfortunately, concentration on demonstrations has occurred in a number of countries simply because demonstrations are easily planned, monitored and implemented (in part, because they require no input from farmers other than their land) and can be used to impress

high level officers, politicians and others with what extension has "done." All to often, extension agents devote a significant portion of their time to the planning, carrying out and evaluation of demonstrations that "impress" those outside the farming community but do little to induce farmers, who have not been involved in the process, to adopt the new agricultural practices (Ibidem).

The training received by extension personnel is usually inadequate in terms of its timeliness, frequency, and relevance. In general, training efforts are concentrated on preservice training which is, for the most part, theoretical in content and classroom oriented. Furthermore, preservice training often covers a wide range of crops and practices that are soon forgotten by the vast majority. Where extension agents are multipurpose workers, their training is diluted further by a treatment of nonagricultural subjects. Extension workers normally receive little training after they begin their work in the service. Though research information continues to be generated, little effort is made to update the knowledge of extensionists with regard to new technology or developments in agriculture; attempts to upgrade the quality of extension staff through systematic refresher courses are rare (Ibidem: 18-19).

In many instances, the extensionists, though highly educated in agricultural theory, lack the capability to

convey their knowledge to the farmers. They may even use the technical jargon of their training school, a specialized vocabulary that is totally incomprehensible to the average farmer (Weitz 1971: 87). In addition, the employees of extension agencies are often townspeople who have never engaged in practical farming (Agricultural 1974: 109); they have received "theoretical training as professional extension workers while knowing nothing of actual farm operations or rural people (Streeter n.d.: 37)." Extension agents are sometimes asked to train farmers in the use of techniques that they themselves have never actually tried before. The small farmers, sensing that the agents do not really "know" of what they speak, are usually unwilling to adopt the new technology. Indeed, it does not take long for a shrewd farmer to distinguish between those extensionists who understand and believe in what they are doing and those who are merely following orders that have been handed down from above (Weitz 1971: 87).

In describing the Chinese agrarian system in the period 1949 to 1965, Kang Chao points out that the most pressing problem in the development of extension services had been the recruitment of qualified personnel. Because most graduates of agricultural colleges and middle schools during the period had been absorbed by agricultural administrative offices at various levels in the government,

extension services were often not able to obtain qualified agriculturists to fill staff positions.

> It was openly admitted that, to meet staffing needs, agricultural extension service stations hired large numbers of persons who had been 'laid off by other organizations but had no knowledge about agriculture' or who 'were under fourteen or fifteen and did not have adequate common sense.' People working in the stations had no confidence in themselves,' 'did not know what to do,' and 'had no sense of security.' In many cases they 'forced the masses to adopt erroneous measures and techniques,' which caused losses and public discontent (Chao 1970: 89).

Many of the critisms levied against extension systems can be attributed to the separation of the research and extension functions, a common state of affairs in many Third World countries where researchers and extensionists are viewed as two distinct groups performing two very different and separate tasks. Research and extension staff do not normally conduct joint field experiments, though such joint activity could help each to understand the concerns and constraints of the other, as well as the special problems of the farmer on whom the work of both groups "supposedly" centers (Benor et al. 1984: 20). The research function is normally performed by research scientists who quite often develop their technological packages in distant experimental research stations that may or may not approximate the actual conditions that will be encountered in the extension process. Lacking a close link with extension and, therefore, little feedback from

the field, research often becomes excessively academic, bearing little relation to farmers' real problems. Researchers tend to focus on the technically optimal situation with little consideration of the economics encountered under practical field conditions (Ibidem); and without questioning the "appropriateness" of the technology for the farmers in their particular district, extensionists often operate under the assumptions that the technological package being promoted is "basically sound, that small farmers can benefit as much from it as large ones, and that adoption is primarily a matter of `selling' the potential users of the new technology (Morss et al. 1976: 126-127)." Little or no effort is expended by the extension workers in attempting to determine whether or not the technology is suited to the real needs of the subsistence farmers (Ibidem). Consultation and dialogue with the farmers is kept to a minimum; their opinions are rarely solicited. In the end, little change occurs and the lives of the small farmers are rarely significantly improved. Ironically, however, the work of the extensionist may be viewed as successful since commonly used success indicators (number of farm visits, number of meetings held, attendance at meetings, number of loans approved, et cetera) measure the level of activity engaged in by the extension worker, rather than measuring whether his activities are benefiting farmers (Ibidem: 128).

According to Pinstrup-Anderson, the basic criticism of extension services in Third World countries should be aimed at their failure to improve communication from the agricultural sector to the agricultural research institutions (1982: 190). Extension services, which usually limit their role to one of facilitating a flow of information from researcher to farmer, must begin to acknowlege the importance of extending information in the opposite direction (Ibidem: 68). B. H. Farmer summarizes thusly:

> One immediately practical task for extension is to act as a spearhead, making the adoption of good innovations faster and more widespread than it would otherwise have been. But this should not obscure the more difficult and longer-term task of improving the quality of the innovations themselves through more effective feedback to research (1977: 166)

All of these commonly encountered shortcomings of extension services culminate in a vicious circle of low status, low morale and low pay for the extension staffs involved. Farmers understandably have very little respect for their extension agents, whom they rarely see anyway; and after many years without success or recognition, extension agents loose most of the enthusiasm and commitment that they may have once had. Without enthusiasm and commitment, extension workers contribute little, and it becomes difficult to make a case for raising their salary, improving their employment conditions or giving them

promotions. Consequently, the status, the morale and the salary of the extensionists remain at low levels, and the extension service continues to operate at a very low level of efficiency (Benor et al. 1984: 20).

PEASANT CHARACTERISTICS

Publications that attest to the ineffectiveness of the extension services in most Third World countries abound in the literature. Poor extension services are not, however, the only factor preventing the successful dissemination of new technologies. For a variety of reasons, small farmers are often not willing to accept innovations in technology even in countries with excellent extension services. Some twenty years ago, Everett Rogers wrote an article in which he attempted to outline ten basic characteristics of peasant societies--all of which can inhibit small farmer adoption of new agricultural practices. The first three peasant characteristics on Roger's list will be considered as they are mentioned quite often in the literature.

The first characteristic of peasant societies cited by Rogers is that of mutual distrust, suspiciousness and evasiveness in interpersonal relations--"a powerful block to cooperative organizations and to most community development programs (Wharton 1969: 116)." Drawing largely on the anthropological studies of George M. Foster and comments made in Edward C. Bandfield's The Moral Basis of a

Backward Society, Rogers gives a possible explanation for the lack of cooperation exhibited in rural societies throughout the Third World. The unwillingness of the peasant to act in concert for the common good relates to his fear that some members of the community will benefit at his expense. This fear emanates from what Foster calls the "image of limited good"--the peasant belief that all good things in life are in fixed supply, that their share of the total supply is very small, and that they are powerless to increase their share (Ibidem). According to Rogers,

> [t]his type of cognitive orientation--that the pie is limited by an unexpandable pie tin--leads the peasant to be suspicious of his always hungry neighbors. For if one man tries to eat a larger slice, the division of the pie for his peers is upset (Ibidem: 117).

The peasant will do all he can to prevent others in the community from getting ahead, for another man's "gain" will be his "loss" (Ibidem).

Rogers also describes the peasant as generally lacking in innovativeness when exposed to new ideas. The inclusion of this characteristic stems largely from a study made by Rogers himself in which he compared the innovativeness of peasants to commercial farmers in four Colombian villages and found evidence supporting the contention that peasants are much less innovative than commercial farmers in adopting new agricultural practices (Ibidem). Furthermore, after examining the literature concerning the degree of

economic orientation of subsistence farmers, Rogers concludes that "[i]n general the available evidence tends to indicate that peasant behavior is far from completely oriented to rational, economic considerations (Ibidem: 118)." He then summarizes his position by stating that

> the norms of most peasant communities are negative toward change as a result of past generations of generally unfavorable conditioning toward innovations. These norms against innovativeness are firmly enforced by various means of social control in the village (Ibidem).

Rogers is heavily criticized by Gelia Castillo for the position he takes with regard to the innovativeness and economic orientation of the peasant. According to Castillo, the peasants' low adoption score must not be cited as evidence of a lack of rationality or innovativeness on their part until due consideration has been given to the specific reasons behind the peasants' adoption behavior. Is it possible, for instance, that the peasant is being rational in refusing to adopt new technology when it is geared to the needs and resources of the commercial rather than the subsistence farmer? Is it possible that the peasant is actually being rational in refusing to adopt technology that has been tested on distant experiment stations, perhaps even in another country, under conditions radically dissimilar to the areas in which they are being introduced? Is it possible that the peasant is actually being rational in refusing to adopt

technology that has been designed by a professional scientist who has seldom entertained the thought of being able to learn something from the so-called traditional farmers (Ibidem: 137-138)? In this vein, Umehara has said:

> Without being persuaded by T. W. Schultz, I agree that peasants are rational resource allocators. However, the capitalistic rationality that [some] authors have in their mind is not the sole standard of rational choice for peasants. Small farmers can very well make rational decisions that we would consider to be irrational. Exploration and identification of rationality in the apparent irrational choices of peasants is the very task of peasant economics, isn't it (1983: 80)?

Castillo, as opposed to Rogers, cites several examples to illustrate the response of farmers to economic incentives. He concludes his comments with the following touch of humor: "There are many more instances of the 'economic man' which could be cited, but this would leave me, a rural sociologist, open to the suicidal charge of allowing economics to explain away sociology (Ibidem)!"

Lest Everett Rogers be viewed too critically, it should be noted that he does mention, though rather briefly, several of the factors cited by Castillo (and many others since) that support the view opposite to his own with regard to the innovativeness and economic orientation of the peasant. He does admit, for instance, that the lack of innovativeness he has observed among peasants "may be due in part to the inappropriateness of the innovations (Ibidem: 117)." Rogers also indicates that peasants may

not be more innovative "because their way of life has conditioned them to avoid the risky, the novel, the uncertain (Ibidem)." He does not, however, attempt to explain, or even outline, the possible risks that might be encountered by the small farmer.

Rogers also characterizes peasants as possessing a fatalistic orientation. Passivity and resignation lead to an acceptance of events as beyond their control. Rogers cites several studies in which this fatalistic outlook can be traced to different sources. Borda, for instance, found that the root of the fatalism of peasants, who were apparently "anethetized by religion" on a surface level, was actually their dismal agricultural occupation rather than their church (Ibidem: 118). Lewis points to an authoritarian family structure which produces fatalism intergenerationally. Carstairs, on the other hand, describes fatalism as a feeling of uncertainty that permeates the society in which no thing or person, including one's self, can be relied upon. The lack of understanding between cause and effect relationships results in a high degree of fatalism according to Levi; all happenings, those that lead to progress as well as those that end in failure, can be explained in terms of fate. The Reichel-Dolmatoffs state the problem thusly:

> The villager's fatalistic outlook on life results in failure to see a relationship between work and one's economic condition. Having enough is

> thought to be almost entirely due to 'luck' (suerte) and is never believed to be brought about or furthered by personal effort and initiative. This "lucky" accumulation of wealth is suspected of being the result of shrewd . . . practices in business transactions, but work . . . is never recognized as the reason back of success (Ibidem: 119).

The fatalistic orientation of many peasant groups is one of the most serious impediments to achieving success in programs of directed social change. Indeed, it is ironic that fatalism, which once served as a "functional explanatory rationalization" for the relatively deprived state of the peasant, now "serves dysfunctionally to discourage efforts at self-help (Ibidem)." Rao summarizes the problem by stating: "An almost fatalistic tendency prevents people from being in a state of healthy discontent (Ibidem)."

A lack of aspiration for a better life is often viewed as a corollary to the fatalistic orientation of the peasant as described by Rogers and others. Increasing attention to the risk constraint of the small farmer is, however, opening the eyes of development planners to the particular "mind-set" of the peasant which simply does not allow for the development of an attitude of aspiration as long as the farmer remains at the margin of subsistence. Small farmers are "quite unable to consider attaining some desired level of moderate comfort, but instead are wholly preoccupied

with survival (Morgan 1978: 239)." According to Sudhir Sen,

> economic man can surface and assert himself only when he sees a chance to climb well beyond the subsistence line. Below it, the differences in degrees of discomfort hardly matter to him. He lives as a victim of fate, not as its master. He accepts, and refuses to resist or fight (1975: 46).

THE INTEGRATION OF AN INNOVATION

Though Roger's list of peasant characteristics has been criticized on several counts, his attempt to explain the lack of adoption of innovations on the part of peasant societies does, however, contain many valid and undisputable points. Whether the inhibitor takes the form of mutual distrust and suspiciousness, lack of innovativeness or fatalistic apathy, to mention a few, it is simply the case that, in general, the mechanisms of change are very slow in peasant societies. Until an innovation is successfully integrated into the culture of a society, a process which normally requires at least a generation, the chances for widespread adoption remain minimal. The European spade, for instance, though a relatively simple agricultural implement, has never replaced the native digging stick used in some areas of Middle America even after three hundred years of cultural contact. The reason: the native coa, though seldom as efficient as the European spade, is better integrated with

the traditional culture. While the spade presupposes a sturdily-shod work force, the coa, constructed with a built-in platform, permits the barefooted cultivator to apply the weight of his body in working the soil (DeGregori and Pi-Sunyer 1969: 45). According to Conner Bailey, any attempt to introduce new practices must be based on a thorough understanding of the continued popularity of traditional practices; to do otherwise would be to assume that farmers are starting out with a "clean slate" upon which recommended practices may be written at will, and this is simply not the case (1983: 43).

In Java the introduction of HYVs has led to the introduction of a more sophisticated sickle than the traditional reaping implement, the ani-ani. Though definitely not as suitable as the more modern implement for use in harvesting, the ani-ani continues to be used in some areas (Murai 1980: 25). The reason: the native ani-ani, though seldom as efficient as the more sophisticated sickle, is better integrated with the traditional culture. Where the new, more efficient sickles are being adopted they are threatening the existing social order; the sickles are reducing the need for a large number of reapers, which in turn means greater unemployment among harvest workers and, therefore, a heightened degree of social tension in the rural communities (Ibidem: 26). Furthermore, the infraction on the use of the ani-ani has been concurrent

with the spread of a whole new system of harvesting, the tebasan system. Under the tebasan system, which has spread most rapidly in areas utilizing the new high-yielding varieties of rice, the "traditional freedom on the part of any willing or needy hand to join the harvesting team has become restricted (Ibidem: 25)." Though favorable developments for many, the introduction of the new HYVs, the new sickle and the new system of harvesting is not, however, viewed favorably by those in Java who depend upon harvesting work for their livelihood.

In The Vanishing Peasants, Henri Mendras cites numerous studies that attest to the fact that peasants, being at least partially aware of the social implications of even the slightest technical change, are understandably hesitant when faced with an innovation. He then analyzes in detail one particular innovation, hybrid corn, which was introduced into the southwest of France just after World War II. Mendras describes the numerous decisions that the adoption of the innovation entailed and, perhaps more importantly, the implications of those decisions. His treatment of all that is involved in the adoption of an innovation is probably one of the best to be found in the literature (Mendras 1970: 33-34).

Statistics show that in 1959, some ten years after the introduction of hybrid corn, more than half of the farmers had not yet accepted the new strain. This is most likely

hard for agronomists to understand; for as far as agronomical techniques are concerned, the native corn in the area and hybrid corn could be cultivated in practically the same manner. The most notable differences between the hybrid and the native corn would include: the hybrid should be planted earlier, with more space between the rows; its leaves need not be stripped nor the tops chopped off; the seed must be purchased as it is produced by hybridization; fertilizer must be used in large quantities; pesticides are required because the hybrid is more sensitive to atmospheric conditions and parasites; and the hybrid, because it grows more slowly at the outset than native corn, must have well-plowed fields to prevent suffocation by self-sown grasses (Ibidem: 99).

The simultaneous cultivation of the native and hybrid varieties made possible a comparison of the two; and since the comparison was overwhelmingly favorable to hybrid, one would assume a rapid replacement of the native variety. This, however, was not the case. Yield, it would appear, was not a decisive argument; for although the majority of farmers readily agreed that the hybrid gave a higher yield, they continued to cultivate both varieties (Ibidem: 101).

The arguments against the wholesale adoption of the hybrid were many. Farmers declared, on the one hand, that hybrid corn was simply too demanding in terms of the care, work and the various expenses it involved; and that, on the

other hand, it did not serve exactly the same purpose as the indigenous variety, particularly in feeding poultry. The color of the hybrid was also a point of contention. The hybrid, generally white, was believed to be inferior to the native yellow variety because, at least in that area, a "fine" chicken was a "yellow" chicken. It was also claimed that a good foie gras could be made only by stuffing the geese with native corn. Furthermore, the farmers were quick to point out that the native corn was simply much "better looking" than the hybrid; while an ear of native corn appears perfect, its kernels all golden and puffed up, an ear of hybrid corn, especially at the ends, appears far less than perfect, its kernels shriveled rather than rounded (Ibidem).

To the list of objections cited above, other valid points could be added that would help to explain the continued resistance to the adoption of hybrid corn. First, the peasants, understandably, did not want to gamble. Never knowing whether the year would be a good one or a bad one, they preferred to use the native variety which required only manure and hard work, rather than the hybrid which, along with fertilizer and pesticide, would have to be purchased. Secondly, the peasants, like all farmers who laboriously sow their fields, were anxious to see the results of their efforts; as hybrid grows slowly at

the outset, it adds to the anxiety of the farmer waiting for the first shoots and may cause the farmer to suffer mockery from neighbors whose native corn "gets going" sooner. Also, since hybrid corn is harvested later than native corn, the innovator who has not yet harvested his crop when all the others have finished risks being taken for a "slacker." Finally, since in the traditional system of production corn served primarily to feed hogs and poultry, many of the peasants simply did not feel the need for the increased yield of corn made possible with the hybrid. As one farmer said: "If I could raise even one more pig with this hybrid corn I'd do it, but my wife already has more work than she can do (Ibidem: 103)!"

Perhaps the most significant deterrent to the rapid spread of the innovation was that many of the peasants, observing the early innovators, began to see the hybrid not just as a single innovation, but rather as the first among many that would eventually have to be adopted along with it (Ibidem: 105). The example set forth by the early innovators was not very encouraging. In the eyes of the nonadopters, for instance, the corn that was supposed to be so profitable had merely overloaded the innovators with new expenses, obliging them to "become a slave to the loan (Ibidem: 107)."

As if the introduction of fertilizer, new crop rotations, machines and indebtedness were not enough for

the peasant to contend with, the hybrid also brought with it the "outsider"--the agricultural extension agent. At least before the hybrid, every peasant knew how to cultivate corn; all had simply followed the familiar and dependable routine of their father and neighbors. Now the more "delicate" hybrid made it necessary to relearn methods of cultivation by paying careful attention to the instruction of experts. To a great many of the peasants, however, the "experts" did not seem to be very sure of their techniques (Ibidem). They would often advise in the current year exactly the opposite of what they had advised the year before. Though the changing advise of extensionists was often justified due to advances in technology, the peasant was still left with a feeling of insecurity--of not knowing where he stood or in whom to trust. Of even greater consequence, however, was the emergence of a feeling of perpetual dependence created by the need to have, probably for the rest of his life, a "teacher" to instruct him in the use of the continually evolving innovation. This "technical tutelage" imposed by progress was, for many peasants, too high a price to pay (Ibidem: 108).

The rivalry raged for quite some time between the native variety, with which the peasants could readily identify, and the foreign breed brought in by the "gentlemen with eyeglasses" from the city, and America no

less (Ibidem: 118). Some declared the hybrid a fad that would quickly pass; others refused to give the hybrid "special" treatment, declaring "[we] didn't use any fertilizer because the corn just has to get used to this country (Ibidem: 119);" and still others definitively pronounced that "[n]ative corn is our corn; American belongs in America (Ibidem)." Despite all the objections and anxieties, however, the hybrid did eventually win the battle in the southwest of France (Ibidem: 110).

Innovation and movement into a more "modern" era has not been easy for the peasant. Indeed, the outsider tends to downplay the costs associated with the introduction of one innovation, such as hybrid corn. After all, he sees only the economic and technical advantages of a minimal change without considering its ultimate consequences. The peasant, on the other hand, worries extensively about the consequences because he, unlike the outsider, is more concerned with his way of life as a whole than with progress in one aspect (Ibidem). In the words of Henri Mendras:

> Between the beaten track and adventure the French peasant . . . sees no middle path, for he has no means of information or calculation at his disposal for meeting the adventure to which technical progress and the market lead him. It is not certain that the past was as satisfying as is said, but it followed a path that had been traced by generations whose problems, risks, and hardships were familiar to him. Now, on the contrary, he must "branch out" without knowing exactly why nor how, trusting in experts . . .

whose interest lies more with "them" than with "us" (Ibidem: 126).

In Designing and Managing Basic Agricultural Programs, Earl Kulp corroborates the findings of Mendras as he outlines several basic reasons for the resistance of subsistence farmers to seemingly attractive innovations. Like Mendras, Kulp attributes much farmer resistance to a lack of trust of outsiders and to a fear of disturbing their present farming system. He also emphasizes past experience with outsiders as a major factor affecting technology adoption. Bad experiences with outside assistance tend to perpetuate the natural tendency of farmers to view strangers with suspiciousness and their "wares" with skepticism. Good experiences, on the other hand, tend to build up confidence, rapport and receptivity in the community (Kulp 1977: 126; Simon and Ruth 1985: 88). In addition to the lack of innovation that stems from mistrust, fear and reactions against bad past experiences, innovation may also be rare among "content" farmers--those whose incomes are normal for their community and who, therefore, feel that their present performance as farmers is respectable (Kulp 1977: 126).

According to Kulp, resistance to innovation in a community will gradually break down if at some point a nucleus of innovators is formed. The success of the nucleus, which consists of those farmers who are not

content with their present income and who are self-confident and willing to take risks that the community generally fears, will suffice to motivate others toward innovation. Indeed, the initial success of "the few" will be a contagion that will eventually affect the entire community (Ibidem). It will remove much of the skepticism and fear; it will give others confidence; and it will eventually upset the social equilibrium of the community to the degree necessary to bring about some "useful" discontent. The multiplier effect will set in as some friends and neighbors, for every previous innovator, will want to try the innovation (Ibidem: 127).

From his study of social science literature, A. L. MacDonald outlines five basic characteristics of innovations that should be taken into account in planning a strategy that will make innovations more acceptable to the members of a social unit: 1) Communicability or observability--the degree to which it is possible to communicate or visualize the projected results of an innovation; 2) Complexity--the degree of difficulty involved in explaining and utilizing an innovation; 3) Divisibility--the possiblility of testing an innovation on a smaller scale in order to evaluate the results before the innovation is used on a larger scale; 4) Compatibility--the relationship between the innovation and values, previous experiences and needs of the members

of the social unit; and 5) Relative Advantage--the degree to which it is believed that a given innovation contributes better than others toward a given goal (MacDonald 1976: 34-35). To this list of commonly cited characteristics, MacDonald adds two additional ones that he feels are particularly relevant to Third World countries: 1) Adaptability--the degree to which the utilization of an innovation is possible with the least number of preliminary changes in the normal routine of a social unit (Ibidem: 35); and 2) Assured Utilization--the existence of conditions which guarantee the use of the products associated with an adopted innovation (Ibidem: 36).

UNDERSTANDING FARMER CIRCUMSTANCES--SMALL FARMER CREDIT

Failure to incorporate an understanding of farmer circumstances has been a major shortcoming in a variety of rural development activities. Neglect of the "human" factor has been especially acute, for instance, in the development of small farmer credit programs. In many developing countries, government strategies for providing small farmer credit have been biased in favor of complicated schemes based on standardized economic assumptions. It is often simplistically assumed that the rural credit problem can be solved merely by transferring "modern" financial institutions from an urban to a rural setting. That modern banks rely on the ability of

customers to reach their office, on a monetized exchange system and on collateral for loans is, however, given little consideration. The survival of "modern" financial institutions in an environment inhabited by people who are remote and largely immobile, who have had little experience with monetized transactions and who have little or no collateral is highly unlikely. The simplistic approach of merely transferring modern credit institutions into the rural sector has been plagued with numerous problems, and the small farmer has, therefore, largely remained unreached (Donald 1976: 53).

A better understanding of the problems of small farmer credit programs in developing countries can be gained by examining the divergent "cultures" of both the borrowers and the lenders. Factors influencing the farmer's use of credit and his willingness to repay a loan would include, for instance, his attitudes toward work and the division of labor, toward time and thrift, toward credit and indebtedness, and toward the government in general (Ibidem: 55-56).

In farming communities where a sexual division of labor rigidly categorizes some tasks as feminine and others as masculine, a supervised credit program requiring the men to perform a task normally assigned to the women may subject the men in the community to severe ridicule. A farmer may also be ridiculed if he spends more time in the

field than is acceptable in the eyes of the community; new agricultural practices associated with credit programs may, however, entail working longer than the culturally defined limit. A farmer's attitude toward a credit program can also be influenced by the extent to which the agency personnel understand what constitutes a "proper" or "respectful" visit; agents who fail to spend "enough" time with a farmer when they come to see him will be seen as rude (Ibidem: 56). Attitudes toward credit in general vary tremendously from society to society. In some areas, the Shakespearian admonition, "Neither a borrower nor a lender be," is strictly adhered to. For some, indebtedness is viewed as a sign of failure, a reflection of a man's inability to provide for his family; for others, indebtedness merely represents the establishment of a reciprocal relationship defined by certain rights and obligations (Ibidem: 57).

Credit programs associated with the government face an additional obstacle. In general, small farmers in Third World countries exhibit a lack of trust in all government agencies, including credit. The most frequently cited reasons for such a lack of trust relate to the inefficiencies of government agencies in meeting the needs of the small farmer. The small farmer tends to believe, and often with good reason, that credit will be forthcoming too late to be of use and that inputs will not be delivered

on time. In fact, however, much of the distrust displayed by small farmers toward government-sponsored credit programs stems from a long history of antagonism between the rural population and centralized power. Though a number of governments are clearly making an effort to redefine their relationship with farmers, their past relationship, centering primarily around the "hated" issues of taxation and labor/military conscription, is not easily forgotten by the peasant (Ibidem). Moreover, when the government speaks in a promising way of increasing benefits to the farmer, many farmers begin to look upon loans extended by government credit agencies as grants or gifts given in partial fulfillment of government promises. Under these circumstances, it should not be surprising that many farmers simply do not expect to repay government loans (Ibidem: 58).

In looking at the lender's side of the borrower/lender relationship, one finds individuals who are normally in the employ of a vast bureaucratic structure where all procedures with regard to paper work, staffing, and so forth are highly formalized. As there if often considerable concern over the degree of formal education achieved by staff members, the farmer often finds himself dealing with a member of the educated "elite" from an urban, rather than a rural, background. These staff members, more often than not, exhibit an attitude of

superiority when dealing with their clients (Ibidem: 59); they are certainly reluctant to spend much of their time in the field, for their highest aspiration is to attain a white collar position and they find visits to small farms positively demeaning. These feelings, along with many other attitudes, are communicated, openly or inadvertently, to the farmers. The field officer will often adopt an impersonal and official stance vis-a-vis the borrower, which is not very conducive to the establishment of a two-way system of communication (Ibidem: 60). Indeed, the lender does little to accomodate the farmer; it is always the borrower, for instance, who must speak the lender's language, both in terms of dialect and the "specialized" vocabularies that accompany different occupations (Ibidem: 61).

As a credit agent's retention and promotion within the agency is largely dependent upon minimizing the default rate in his portfolio, loan agents tend to lend only to creditworthy individuals. Creditworthiness, however, is normally estimated by two things: the borrower's ability to fill out the elaborate loan application forms and the ability to offer something as collateral. Since the small farmer is usually lacking on both counts, he rarely receives the loan. The more educated, larger-property owners, on the other hand, not only have more of an ability to properly fill out the application forms and to offer

collateral, but they, more so than the small farmers, feel at home in a bank and exude the kind of appearance and behavior that convinces the loan agent of their respectability (Ibidem: 60).

Another key problem in the field of small farmer development is that credit programs, due to bureaucratic values, usually revolve around the financial aspects of their operations. Little attention, for instance, is given to monitoring the actual changes which occur on the farms of borrowers; instead, the agencies' primary concern is to maintain efficiency within their own organization and on items recorded in the bookkeeping (Ibidem: 61).

In general, there is, as all the above indicates, a "cultural gap" between the small farmer and the credit agent. The cultural gap between lenders and borrowers need not, however, continue to be a significant deterrent to success in reaching the small farmer. Indeed, recognition of the gap is the first step toward closing it. Cultural realities, persistent though they may be, are not impervious to change. The challenge is to discover new avenues for "shaping the responses of farmers and bureaucrats so that they may lead to desirable rural development (Ibidem: 62)."

AN ANTHROPOLOGICAL APPROACH

In considering all of the special constraints of the small farmer and all that is involved in the adoption of an innovation, the need for more of an "anthropological" approach to small farmer development has become increasingly apparent. Raymond Ewell draws attention to the centrality of the "people" part of the problem of agricultural development in his answer to a very thought provoking question.

> If the United States can send a man to the moon why can't we help India, Nigeria and Brazil to improve their agricutures? The answer is that improving the agricultures of India, Nigeria and Brazil is a more complicated problem than sending a man to the moon. The problem of sending a man to the moon can be solved by scientists and engineers using computers and the vast store of scientific knowledge now available. Improving agriculture in the developing countries is more complicated because it involves people and education and social changes--particularly since it involves two billion people (Halacy 1972: 219).

Unfortunately, the socio-cultural factors that help to explain the "people" part of the problem of agricultural development have typically been completely disregarded in the traditional myopic approach that views the problems of development as largely technical (Sahay 1969: 194). Indeed, technological change has been referred to as the "hero" of the agricultural drama (Reynolds 1975: 8), yet people have "generally been relegated to footnotes in articles about technological change (Molnar and Clonts

1983: 37)." Neglect of the "human" factor, while seemingly simplifying the task of development, has blinded the eyes of planners, policymakers and development workers to many of the basic principles of development that can be gleaned only through an anthropological approach.

Fortunately, the movement toward more of an anthropological approach is apparent in the development literature of the last decade, especially notable in the emergence and continuing emphasis on Farming Systems Research to be discussed in the concluding pages of this chapter. Because of the apparent increased awareness of the "human" aspect of development, stemming largely perhaps from increased emphasis on small farmer development, the researcher's attention was drawn to publications of an anthropological nature that might otherwise have remained on the shelf unnoticed. Two such publications, B. N. Sahay's Pragmatism in Development Application of Anthropology and Eugene Nida's Customs and Cultures Anthropology for Christian Missions, are particularly informative as they contain numerous sections of practical application, a feature which is largely absent or, at best, limited in most publications. Both books are filled with insights and examples that bring light to much of what is being discussed in the development literature of the 1980s.

In recommending a more pragmatic approach to development through an application of anthropology, B. N. Sahay, in the early 1960s, spoke of the importance of language ability and cultural understanding on the part of the development worker; preparing a plan based on the felt needs of the local community and actively involving community members in its design and implementation; and introducing new ideas slowly, while working through, rather than in rivalry to, traditional social institutions (1969: 192-193). Sahay describes in detail the influence of socio-cultural factors on the various facets of a community development program of directed change, noting that these factors wield an especially strong influence on agricultural activities (Ibidem: 195).

In Eugene Nida's 1975 publication, emphasis is placed on learning to understand and appreciate the customs of other cultures by carefully reflecting on one's own customs. Though the "outer form" may differ, many of the customs that the "outsider" finds so hard to understand in other cultures do have counterparts in his own culture (1975: 2-3). Attention is also given by Nida to the difficulties encountered by an "outsider" in attempting to piece together all of the component parts of an alien culture that in combination account for the way in which the society functions. Patterns of culture, warns Nida, are often so complex that the "pattern" may be almost

impossible to discern; and, paradoxically, the very things that appear small and insignificant in the eyes of an "outsider" often play central roles in the overall functioning of the society (Ibidem: 45).

Nida's discussion of the importance of language as a means of cultural transmission corroborates Sahay's emphasis on language ability and cultural understanding as keys to project success. The problem with language learning, according to Nida, is normally not one of ignorance but of cultural isolation; of learning a tremendous amount about the language but not learning the language; and of studying but not listening to and speaking the language. Training in a classroom setting, though beneficial, is not sufficient for attaining the degree of language ability needed to operate efficiently in a foreign culture. True language learning requires total "submersion"--continual exposure to situations in which one can and must listen to the language as spoken by those who speak it fluently (Ibidem: 222).

WHAT IS DEVELOPMENT?

The very concept of development has been under critical examination for well over a decade. The question "What is development?" has been asked repeatedly; the answer that has emerged with increasing frequency has been that development means "development of the human being."

Though appearing to be consistent with the conventional meaning of development, at least on the surface, the emerging view of what constitutes development is a radical departure from that espoused in conventional development strategy (CDS). CDS does refer to the development of the human being; its point of emphasis, however, has been almost exclusively on the material dimension of human development. The current focus on "development of the human being," on the other hand, goes beyond the satisfaction of the basic physiological needs of the human being to a recognition of the need for satisfying an equal, if not larger, number of nonmaterial needs (such as security, belongingness, love, respect, and self-esteem). Accordingly, a meaningful development strategy should seek to encourage and support activities and institutions that will bring about a realization of these nonmaterial, as well as the material, needs of the human being (Diwan and Livingston 1979: 73).

In response to the evolving consensus on what constitutes "real" development, much discussion has taken place and many volumes have been written concerning the need for an alternative development strategy (ADS). To be sure, the concepts about such a strategy are still in their formative stage. Virtually all national governments and international agencies have become involved in giving shape to ADS. Variants of the strategy are flourishing under a

host of names--Appropriate Development, Basic Needs, Self-Reliant Development, Rural Based Development, Gandhian Development, Small is Beautiful, et cetera (Ibidem).

According to Romesh Diwan and Dennis Livingston, coauthors of Alternative Development Strategies and Appropriate Technology, there is a fundamental difference between CDS and ADS. While CDS is defined by, and promotes, the objectives and welfare of the R society (the rich, elitest, politically powerful and urbanized, who constitute a very small proportion of the population), ADS is determined by, and fulfills, the needs and welfare of the P society (virtually the entire population as it contains the rural, the poor, and the powerless). By promoting the welfare of the R society, CDS divides the country by breeding and propagating dualism; ADS, on the other hand, integrates the country into one society by reducing, and eventually eliminating, dualism (Ibidem: 78). While CDS views local institutions and the participation of local community members in decision making as unnecessary, ADS assigns to these things a crucial and fundamental role in the development process. In CDS, people are the problem while experts are the solution; answers are obtained from standard theory. In ADS, on the other hand, people are the solution while experts are the advisors; answers are obtained experimentally as there is no "standard" theory. Imported technology is a central feature of CDS; indigenous

technology, however, is strongly emphasized in ADS (Ibidem: 80).

Alternative Development Strategies are certainly raising important fundamental questions for agricultural science and technology. Agricultural methods based solely on what is scientifically and technically possible are no longer being readily accepted; instead, more attention is being placed on what the "small farmer, his family and his community want to do and can do with the resources of land, labor, knowledge and money actually available to them (Hunter et. al 1976: 40)." The emergence and subsequent development of Farming System Research has been a clear-cut manifestation of the new and important breakthroughs that are beginning to be observed in the field of agricultural development.

FARMING SYSTEMS RESEARCH

Farming Systems Research (FSR) has been the focus of much attention in the literature for nearly a decade. Publications and work shops on the FSR theme have increased dramatically since 1978, when several publications began to draw attention to the notion of FSR. Interest in FSR has not, however, been confined to the literature; there has also been a sharp increase in recent years in the commitment of resources toward its implementation in developing countries (Eicher & Staatz 1984: 362-363).

In Readings in Farming Systems Research and Development, D. W. Norman and Elon Gilbert provide a general overview of Farming Systems Research. They begin by looking at the farming family and its environment (Shaner et al. 1982: 17),

In most types of agriculture in Third World countries, the unit of production (the farming system) and the unit of comsumption (farming household) must be viewed as "one", for they are intimately linked and cannot be separated (Ibidem).

> While in almost all sectors the production cell is distinct from the consumption cell, the family farm manages to integrate them. . . . Whether it be technical or economic, every decision concerning the farm also concerns the family, and vice versa, since one cannot be separated from another. If a farmer buys more hogs because the price is favorable or because it has been a good year for corn or beets, he is adding to his wife's work load and is anticipating a monetary return that will fall to her management. And so it goes. . . . And his children have preferences that must be indulged; if they do not enjoy taking care of cows, the farmer will tend to change over to cultivation, regardless of the market conditions (Mendras 1970: 82-83).

The specific farming system adopted by a given farming household will depend primarily upon its members who allocate resources among alternative activities in a manner which will, with the knowledge they possess, maximize the achievement of their objectives (Shaner et al. 1982: 17).

The farming system, according to Norman and Gilbert, is determined by the environment in which the farming

family operates. The environment, however, must be viewed as being comprised of two basic types of elements--technical and human. The technical element, which reflects what the farming system can potentially be, consists of physical factors (water, soil, temperature, et cetera) and biological factors (crop and animal physiology, disease, insects, et cetera). Both physical and biological factors have been modified by technical scientists to some degree (Ibidem: 17-19).

The human element can be divided into two broad categories--exogenous factors and endogeneous factors. The exogenous factors are those things over which the individual farming household has little or no control. Exogenous factors include such things as community structures, norms, and beliefs; external institutions which influence decisions with regard to input supplies and markets for agricultural commodities; and a host of other factors, such as farm location and population density. Though the farming household has no control over these exogenous factors, they definitely influence what members of the farming household are able to do. Endogenous factors, on the other hand, are under the control of the individual farming households and can be used by them, subject to the boundary conditions imposed by the technical element and exogenous factors, to create a farming system consistent with their goals. Furthermore, under certain

circumstances the endogenous factors can be complemented and supplemented, both in quantitative and qualitative terms, through the influence of exogenous factors, such as credit programs and extension services (Ibidem).

Having described the farming system, Norman and Gilbert proceed with a brief characterization of Farming System Research (FSR). Although there are many differences of opinion with regard to the methodology and implementation of FSR, a conventional wisdom is emerging, according to Norman and Gilbert, with regard to some of the basic attributes of FSR.

First, the descriptive or "diagnostic" stage, undertaken to ascertain the constraints, needs, and the degree of flexibility in the current farming system, is of particular importance (Ibidem: 27). According to a set of guidelines proposed in Agricultural Development and the Rural Poor, the word diagnosis, as opposed to survey or appraisal, is significant for two primary reasons.

> First, diagnosis implies intention to act and to prescribe; whereas 'survey' tends to imply a collection of a mass of data, only some of which may prove useful; and 'appraisal' may imply only evaluation rather than evaluation with a view to prescription. Second, diagnosis implies obtaining a good deal of vital information from the patient, in this case the villagers. Diagnosis therefore implies a survey of those facts which are likely to be relevant to possible action; and it implies consultation with farmers (Hunter 1978: 28).

The suitability of the strategies designed, tested and extended will be determined by the application of

appropriate criteria discovered in the initial research stage (Shaner et al. 1982: 23).

Second, the farming family is the central unit in the research process; its objections are incorporated in FSR. Testing consists of trials at the farm level, either under the complete control of the farmers or under the direction of the research team with the farmers participating. Involvement in the research process gives the farmers a voice in the process and ensures that the evaluation criteria used will be relevant to them (Ibidem; Eicher and Staatz 1984: 367).

Third, in FSR efforts are made to ensure a convergence of private and societal interests. Satisfying the short-run needs of individual farming families has often resulted in long-run societal problems, such as soil erosion or increased welfare inequalities. FSR seeks to develop strategies that will avoid such conflicts (Ibidem: 23-24).

Fourth, the FSR approach draws upon the knowledge of farmers, enabling development strategies to be built upon the good points of the present farming systems. Furthermore, researchers are often able to minimize the time spent in "rediscovering the wheel" simply by listening to and learning from the local farmer (Ibidem: 24).

Fifth, both the technical and human elements are recognized as having locational specificity in FSR. The FSR approach requires, therefore, that farming families be

disaggregated into homogeneous subgroups and that strategies appropriate to each be developed (Ibidem).

Sixth, the farming systems perspective of FSR forces the adoption of an integrative approach which increases the possibility of exploiting complementary and supplementary relationships and deriving solutions compatible with the needs and capabilities of the farming family. A multidisciplinary team, comprised of technical and social scientists, must work together in all stages of the research process to ensure maximum benefits from the integrative approach of FSR (Ibidem).

Seventh, the process of FSR includes a fully developed system of linkages between farmers, research personnel, and funding agencies; this is in marked contrast to the unidirectional links present in the "top-down" approach. FSR is recognized as being dynamic and iterative and, therefore, more efficient at "fine-tuning" improved technologies for a specific locale (Ibidem).

Eighth, FSR has a wider perspective than many of the traditional research approaches; it is concerned with the productivity of the entire farming system. In addition to the concern traditionally placed on technical issues, FSR is careful to address nontechnical or institutional issues as well. Though increased production is definitely a major goal of projects conducted under the auspices of FSR, it is

definitely not the only goal. Along with the focus on increased production will most likely be a focus on a variety of related issues, such as marketing and processing (Ibidem).

Finally, FSR complements, rather than competes with, other research approaches. FSR draws heavily on other types of research programs; reductionist commodity based research programs, for instance, provide essential inputs utilized by FSR in order to obtain quick results at specific locations. FSR, on the other hand, has been used in other types of research programs to redefine or refine research priorities (Ibidem: 25).

SUMMARY

A review of the literature clearly indicates the need for more of an anthropological approach to development, especially in the field of agricultural assistance. The failure of technology, and of Western technology in particular, to solve the problems of hunger and poverty in rural communities throughout the Third World has contributed to the downfall of Conventional Development Strategy (CDS) which has typically viewed the problems of development as primarily technical in nature. Consideration of the human factor has become the cornerstone of the Alternative Development Strategies (ADS) that have largely replaced CDS. The current emphasis in

the literature, much of which stems from studies of the second and third generation problems associated with the Green Revolution, is on the need for understanding and addressing the special constraints facing the subsistence farmer; allowing community members to participate fully in the development process; and conducting on-farm research so as to take into account the total farming environment within which the farmer lives and works. The problems associated with the extension process and the integration of innovations into rural communities have been brought into full view, and much discussion with regard to the lessons that can be learned through hindsight from past efforts in the field of agricultural development is taking place. Though there are still many answers to be found, it is an encouraging sign that questions about hunger and poverty are at long last being asked. The questions/issues raised in the preceding literature review provide the framework for the analysis of the overseas developmental assistance activities of United States-based missionary-sending agencies that follows in the remainder of the study.

CHAPTER IV

AGRICULTURAL PROGRAMS OF UNITED STATES-BASED RELIGIOUS AGENCIES: OVERALL AND SPECIFIC OBJECTIVES

The hunger-related projects conducted overseas by United States-based religious agencies are many and varied. To describe each and every one would definitely be beyond the scope of an individual researcher. In analyzing the 105 projects reported on in this study alone, the researcher has been amazed at the extent of the "relief" work being conducted abroad by United States-based mission agencies (See Appendix B for general information on these projects). Some efforts are very "small"--a bee project in Colombia that benefits sixty people and a widow's vegetable project in Guatemala that benefits fifteen people; other efforts are very "large"--a food production and small-scale irrigation project in Thailand that benefits 70,000 people and a Rural Life Center in the Philippines that benefits over one million people. All of the efforts, however, are significant; for, in combination, they are helping to alleviate the suffering of millions of people. Much of the agricultural work of mission agencies is, of course, conducted on the African continent where hundreds continue to die daily from malnutrition and starvation. Of the 105 projects analyzed in this study, fifty-two (49.5%) are located in Africa, thirty-two (30.5%) in Latin America and

twenty-one (20.0%) in Asia. Appendix C contains a list of the specific countries in which the projects are located.

Information with regard to the overall and specific objectives of their mission's agricultural programs was requested of the missionaries participating in the study. That information is presented now to provide a more complete picture of what mission agencies are attempting to do in their "human needs" efforts overseas.

OVERALL OBJECTIVES

In order to assess the "overall objectives" of the agricultural programs conducted overseas by United States-based religious agencies, survey respondents were asked to indicate the degree of emphasis placed by their mission on seven objectives. The scale to be utilized in rating the objectives was: 1 - Heavy Emphasis; 2 - Some Emphasis; 3 - Little Emphasis; and 4 - No Emphasis. The objectives are listed in Table 3.1 (in descending order) along with the individual and composite rating received by each.

Approximately one-third of the respondents listed one or more overall objective not included in the list of seven provided. Several respondents made reference to the "spiritual" aspect of their project. They spoke, for instance, of striving to help individuals in the project area to more deeply experience God's love for them; of desiring to create a personal awareness of Christ's love by

TABLE 3.1

OVERALL OBJECTIVES, INDIVIDUAL AND COMPOSITE RATING

Overall Objectives	Number of Respondents Indicating Degree of Emphasis				Composite Rating
	Heavy (1)	Some (2)	Little (3)	None (4)	
To increase the agricultural productivity of the farmer	70	20	2	0	1.26
To increase food production	71	15	4	2	1.32
To specifically focus attention on activities that benefit the "small" farmer	64	18	5	2	1.38
To help farmers better provide for the nutritional needs of their families	54	29	8	0	1.49
To increase family income in order to improve the quality of life	46	32	13	1	1.66
To improve the local community's capacity for self-help and/or to support indigenous organizations and people in self-help efforts	48	27	12	4	1.69
To expand employment opportunities for members of the local community	12	27	33	20	2.66

ministering to people both physically and spiritually; and of attempting to provide a vision of hope and a desire for commitment to Christ and to their fellow man that would make the changing of attitudes and habits more likely. Also frequently mentioned was the goal of developing a sense of "community" in the project area--training people to work together and encouraging the formation of pre-cooperative groups. Respondents involved in work with nomad/pastoral groups listed the introduction of farming or "settled" cultivation as the major overall objective of their project. Also frequently mentioned was the goal of general conservation of natural resources.

Though cited with less frequency, several other overall objectives were mentioned by survey respondents. A list of these objectives would include: the establishment of research programs to aid in finding solutions to the problems encountered by farmers on a daily basis; to work in an integrated manner (agriculture, education, health, sanitation, et cetera) to improve the standard of living in the project area; to strive to augment the well-being of the entire farm family; and to give women in the project area a sense of accomplishment and a sense of worth, particularly in those cultures where women are deemed to be "worthless."

SPECIFIC OBJECTIVES

In order to assess the "specific objectives" of the agricultural programs conducted overseas by United States-based religious agencies, survey respondents were asked to identify the objectives of their mission's agricultural program. In the process of identification, they were also asked to indicate whether the stated objectives were (or would be in the future) receiving major or subsidiary emphasis. The results are shown in Table 3.2.

In addition to the specific objectives listed in the questionnaire, several others were identified by mission personnel as a major part of their agricultural program. One missionary, for instance, added the development of a feed mill and hatchery to the "given" list of specific objectives; another, a canning industry; and several made reference to the establishment of trading posts. Achieving a greater degree of community cooperation, however, served as the basis for most of the "other" specific objectives cited by mission personnel: the development of women's cooperatives; the organization of Christian Farmers Clubs, whose members share information and work together in various projects; and encouraging local church congregations to become more deeply involved in developmental activities in the communities in which they are located.

Table 3.2

SPECIFIC OBJECTIVES, MAJOR AND MINOR EMPHASIS

Specific Objectives	Number and Percentage of Repondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
1) increasing the amount of land under cultivation	28	30	46	48	74	78
2) increasing agricultural productivity on land already under cultivation	73	77	14	15	87	92
3) the introduction of improved varieties of standard or accepted crops in the area in order to						
a) increase output and better satisfy the subsistence needs of the local community	62	65	21	22	83	87
b) provide a marketable surplus and increase the incomes of local community members	43	45	41	43	84	88
c) better meet the nutritional needs of the local community	58	61	28	30	86	91
4) the introduction of (a) new crop(s)						
a) that is (are) more suitable to the local climate and soil condition than traditional crops grown in the area	31	33	41	43	72	76
b) in order to increase output and better satisfy the subsistence needs of the	46	48	28	30	74	78

Table 3.2 (Continued)

Specific Objectives	Number and Percentage of Respondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
c) in order to provide a marketable surplus and increase the incomes of local community members	38	40	40	42	78	82
d) designed to meet the nutritional needs of the local community in a way not possible with the traditional crops grown in the area	38	40	39	41	77	81
e) in order to expand employment opportunities (increase labor utilization) in the local community	10	11	58	61	68	72
5) the introduction of a multiple cropping system in order to						
a) increase output and better satisfy the subsistence needs of the local community	43	45	21	22	64	67
b) provide a marketable surplus and increase the incomes of local community members	30	32	28	30	58	61
c) better meet the nutritional needs of the local community	37	39	25	26	62	65
d) expand employment opportunities (increase labor utilization) in the local community	12	13	41	43	53	56
6) restoration of the land and/or the prevention of further soil erosion through reforestation	35	37	32	34	67	71

Table 3.2 (Continued)

Specific Objectives	Number and Percentage of Respondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
7) the promotion of animal husbandry/livestock (or poultry) improvement in order to						
a) provide another source of income for members of the local community	46	48	22	23	68	72
b) raise the amount of protein available to members of the local community	55	58	15	16	70	74
c) expand employment opportunities (increase labor utilization) in the local community	13	14	43	45	56	59
8) the development of fish farming in order to						
a) provide another source of income for members of the local community	19	20	23	24	42	44
b) raise the amount of protein available to members of the local community	28	30	18	19	46	48
c) expand employment opportunities (increase labor utilization) in the local community	6	6	30	32	36	38
9) the development of vegetable gardens in order to						
a) increase output and better satisfy the subsistence needs of the local community	52	55	17	18	69	73
b) provide a marketable surplus and increase the incomes of	40	42	32	33	71	75

Table 3.2 (Continued)

Specific Objectives	Number and Percentage of Respondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
c) better meet the nutritional needs of the local community	56	59	13	14	69	73
d) expand employment opportunities (increase labor utilization) in the local community	12	13	38	40	50	53
10) the planting of fruit trees in order to						
a) provide another source of income for members of the local community	27	28	37	39	64	67
b) better meet the nutritional needs of the local community	48	51	21	22	69	73
c) expand employment opportunities (increase labor utilization) in the local community	15	16	33	35	48	51
d) help in the prevention of soil erosion	15	16	39	41	54	57
11) the training of local farmers in						
a) new and/or improved farming techniques	70	74	13	14	83	87
b) basic farm management practices	56	59	17	18	73	77
12) the operation of a "model" or "demonstation" farm	33	35	32	34	65	68
13) the operation of an established agricultural training school	12	13	23	24	35	37
14) the design/construction of a small-scale irrigation system	24	25	27	28	51	54

Table 3.2 (Continued)

Specific Objectives	Number and Percentage of Respondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
15) the introduction/development of an animal traction program	12	13	29	31	41	43
16) involvement in agricultural research and/or field testing of appropriate technology	29	31	39	41	68	72
17) the promotion of counterpart training in order to aid in project sustainability once mission support is terminated	59	62	20	21	79	83
18) increasing the short-run agricultural institutional capacity of the local community by						
a) providing and/or helping in the attainment of agricultural inputs necessary for project implementation (seeds, fertilizer, pesticides, small farming implements, et cetera)	56	59	21	22	77	81
b) providing and/or helping in the attainment of credit necessary for project implementation	25	26	26	27	51	54
c) helping local farmers to market their current agricultural output	25	26	41	43	66	70
19) increasing the long-run agricultural institutional capacity of the local community by developing and/or encouraging						

Table 3.2 (Continued)

Specific Objectives	Number and Percentage of Respondents Indicating Specific Objectives					
	Emphasis					
	Major		Minor		Total	
	#	%	#	%	#	%
the development of agricultural services (that will continue to exist after mission support is terminated or greatly reduced) in the areas of						
a) attainment of agricultural inputs	41	43	18	19	59	62
b) credit	17	18	30	32	47	50
c) marketing	27	28	29	31	56	59
d) storage of excess output	22	24	29	31	51	54
e) transportation	15	16	30	32	45	47
20) the design/construction of major infrastructure projects such as						
a) the creation of a lake	6	6	16	17	22	23
b) the creation of ponds and water catchments	14	15	21	22	35	37
c) dam building	7	7	22	23	29	31
d) well digging	23	24	24	25	47	50
e) the building of storage facilties	17	18	23	24	40	42
f) the development of large-scale irrigation systems	7	7	17	18	24	25
21) the establishment of rural _____ cooperatives						
a) multi-purpose (production, credit, marketing, et cetera)	21	22	16	17	37	39
b) production	15	16	19	20	34	36
c) credit	7	7	23	24	30	32
d) marketing	11	12	20	21	31	33

ANALYSIS OF DATA

The current emphasis in the literature on the "farming systems" perspective has broadened the field of "agriculture" to encompass a variety of activities outside the traditional focus on crops and the cultivation of land. In considering the entire farming environment, agricultural missionaries are involved in agricultural programs that promote animal husbandry/livestock (or poultry) improvement, the development of fish farming, and the planting of vegetable gardens and fruit trees, as well as the introduction of new crops, improved varieties of standard or accepted crops and multiple cropping systems. These activities are in line with the overall objectives of the agricultural programs since they serve to increase output and better satisfy the subsistence needs of the local community; provide another source of income and/or provide a marketable surplus and, thereby, increase the incomes of local community members; better meet the nutritional needs of the local community; and, to a lesser extent, expand employment opportunities in the local community. Consideration of the entire farming environment is also evident in the emphasis placed by the agricultural missionary on reforestation programs aimed at preventing soil erosion.

According to the literature, the small farmers in most Third World countries have not been able to take advantage of technological advances in the field of agricultural development primarily because they do not have access to vital agricultural institutions that must be present for the successful adoption of new technologies. Without suitable credit facilities, reliable extension services, and accessible input and product markets, for instance, the odds against the small farmer being able to innovate successfully are tremendous. In recognition of the absence or scarcity of critical agricultural institutions preventing small farmer development, mission agencies are addressing the problem by helping communities to esbablish, or to gain access to already existing, institutions. Significant efforts toward increasing the farmers' ability to obtain agricultural inputs and credit are being made in many programs; in some of these programs, and in others as well, the emphasis is on increasing the farmers' ability to store and/or to market excess output.

An inadequate water supply constitutes a critical bottleneck preventing small farmer development in many Third World countries. As water is a necessary complement to new and improved varieties of seed, fertilizer and pesticides in "modern" technological packages, many small farmers who lack access to an adequate supply of water are unable to adopt such packages. Being able to grow crops in

the dry season, as well as properly care for livestock and poultry year-round, would tremendously increase the output of the small farmer and perhaps allow for a surplus that could be marketed as a source of increased income; without adequate supplies of water, however, this is an impossibility. Of gravest concern, of course, is the fact that water scarcities are so critical in some Third World countries that the basic human needs of the people are not being met. Accordingly, in many of the agricultural programs being conducted by agricultural missionaries appointed by United States-based religious agencies, the top priority is water development--well digging primarily, but also significant efforts involving the creation of lakes, ponds, water catchments, dams, and irrigation systems of both a small- and large-scale nature.

Of all the problems described in the literature with respect to small farmer development in Third World countries, one of the most pressing appears to be in the area of extension--getting the results of scientific and technological advance out to the farmers and training them regularly and thoroughly in the use of new and/or improved agricultural techniques and basic farm management practices. Farmer training is strongly emphasized in the programs of agricultural assistance conducted overseas by United States-based religious agencies; for agricultural missionaries, residing as they do in the rural communities,

are in a unique position to undertake the work of agricultural extension. In addition to one-on-one and small group training, agricultural missionaries are often involved in the operation of model or "demonstration" farms and, to a lesser extent, the operation of established agricultural schools.

With the focus on small farmer development in the last decade, the need for more of an anthropological approach to development has been one of the most discussed topics in the literature. Conventional Development Strategy has gradually been replaced by Alternative Development Strategies that emphasize the needs of the rural poor and assign to them a "participatory" role in the development process. Consideration of attitudinal factors and special constraints that tend to inhibit small farmer development has accompanied the movement away from the almost exclusive focus on technological factors in Conventional Development Strategy. The emphasis placed by agricultural missionaries on ministering in a "wholistic" manner, as evidenced in the stated objectives of most mission agencies, makes their agricultural programs conform to much of what is described in the Alternative Development Strategies that have been proposed by a variety of "secular" groups and agencies. The work of agricultural missionaries is heavily focused on the small farmer and much emphasis is placed, to cite but two examples, on reducing the risk constraint that

significantly affects small farmer behavior and encouraging cooperative efforts that will contribute to a heightened sense of accomplishment and, perhaps, rid the community of a fatalistic attitude toward life and work.

CHAPTER V

ROLE OF THE MISSION STAFF

DESCRIPTION

The mission staff of agricultural projects conducted overseas by United States-based religious agencies normally consists of one long-term missionary sent out by the mission agency and four to five nationals.* The expatriate is usually classified as an "agricultural specialist" by virtue of having had academic training in the field of agriculture and/or many years of on-farm experience. During his stay in a particular area, which may be for the duration of his "career" as a missionary, the expatriate serves as project coordinator for a series of agricultural projects in an ongoing program of agricultural development. The missionary is often working alongside other long-term personnel who are involved in other aspects of the mission's total program. All long-term personnel share in the administrative duties of the mission, and all usually participate extensively in the mission's program of evangelistic outreach. In general, agricultural missionaries spend roughly one-fourth of their work time on

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*The summary description that follows is based upon responses to survey and interview questions.

activities not directly related to their own agricultural program.

Most missionary-sending agencies provide their long-term personnel with some formal language training before sending them out to their particular mission field. Since they will be located in rural areas, rather than in major urban centers, agricultural specialists will often be required to attain a certain level of proficiency in two languages--a local language and the national language--before their field work can actually begin. The time period devoted to language training also includes an extensive program of cultural orientation to prepare the missionary for a way of life that may be radically different from that to which he is accustomed.

Sometimes the agricultural missionary is assigned to an area that is already involved in a program of agricultural development initiated by missionaries previously assigned to the area; in this case, the "role" of the missionary may already be fairly well established so that his work can begin immediately upon his arrival on the field. In other cases, however, agricultural missionaries are assigned to areas in which no agricultural program is currently in progress; it may be several months, or perhaps years, before the missionary in a "new" mission field is able to develop even a basic outline for the agricultural program of the mission. Learning all the "ins and outs" of

the local situation, making contacts with host government officials and key community leaders, establishing a credible and trustworthy reputation among the local farmers who will be involved in any future agricultural program of the mission--all of these things take time. Furthermore, the missionary may have to devote a significant amount of time at first to establishing himself and his family in the local community. A residence and other mission facilities may have to be built before the missionary can begin to devote his time and energies toward developing the agricultural program of the mission.

The design stage of the first in a series of agricultural "projects" is initiated only after the missionary has begun to establish an effective two-way system of communication between himself and potential project participants; community support must often be actively enlisted by the missionary. By observing and listening, the missionary gets a feel for what most farmers in the area are currently doing and what they would most need and desire in the way of agricultural assistance. By utilizing his knowledge and experience in the field of agriculture, by observing the methods used by the more "progressive" farmers in the community, and by seeking the advise of any government/private sources that would have information concerning project possibilities in the local area, the agricultural missionary begins to formulate in

his own mind both long- and short-range plans for the mission's agricultural program.

When the agricultural missionary begins to feel confident about his "acceptance" in the local community, he may begin to talk seriously with farmers about the undertaking of a "project" that will be of benefit to them. The farmers will usually be called together to discuss the project. The missionary will listen and will suggest, and in a process of give-and-take the project plan will begin to take form. If he has done his "homework" properly, the project plans he himself has already begun to formulate will be in line with the felt needs and capabilities of the local farmers. In subsequent meetings, further project details will be "ironed out" as specific project requirements are discussed and as the lines of responsibility between the mission and the project "participants" are clarified.

The agricultural missionary is normally fully supported by his mission agency, and he will normally have some mission funds available for the enlistment of several staff members from within the local community. The formation of the national staff may simply evolve as the availability and capability of certain individuals becomes apparent. In some areas the "village leader" or "tribal chief" may choose the persons who will be allowed to serve on the mission staff; in other areas, the local church

congregation, or a special committee within the church, chooses the national members of the mission's agricultural staff. A primary task of the agricultural missionary will be to train the national staff so that they can begin to assume leadership roles in various aspects of the mission's agricultural program.

In roughly one-half of the projects conducted overseas by United States-based missionary-sending agencies, the long-term staff are assisted by short-term personnel, many of whom are sent to the project area by the mission agency. Short-term personnel may remain at the project site for only two to three weeks or for as long as two to three years. Approximately one-half of the short-term personnel can be classified as lay volunteers, individuals with full-time careers outside the realm of foreign mission work who choose to serve on the mission field for a few weeks or a few months on a voluntary basis.

Many short-term personnel are utilized as general construction and maintenance workers. Some of the short-termers are engaged in specialist activities, such as water development, soil testing and animal health care; others are providing essential administrative skills. In some cases short-term personnel with expertise in a given area are being utilized solely as consultants and technical advisors. In the absence of long-term personnel (due to furlough, illness, et cetera), short-termers on occasion

assume the role of project coordinator, temporarily supervising project activities.

RESPONDENTS' COMMENTS

Survey respondents were asked to comment on the various issues involved in the "Role of the Mission Staff." The comments made by the survey respondents are categorized under the following headings: Language Ability; Long-term Personnel; Short-term Personnel; Agricultural Specialists; Role of the "Outsider"; and Role of Staff--National Training.

Language Ability

The comments with regard to language ability on the part of long-term personnel were more emphatic and revealed more unanimity on the part of survey respondents than did the comments made with respect to any other single issue. The importance of language ability as a key to project success is clearly stated in the following sample of comments.

> Language should be a top priority (A - 3). . . .
>
> It is of utmost importance that the long-termer be conversant in the local language (B - 1).
>
> Long-term personnel . . . must by all means be able to speak the language (B - 2)! . . .
>
> A project stands or falls on language ability (C - 3). . . .

> It is essential for all staff members to speak the local language (G - 7). . . .
>
> Language ability is absolutely crucial (G - 9).
>
> Speaking the language is indispensable (G -10).
>
> Fluency in the local language is an absolute must for the long-term staff (I - 1).
>
> Language ability is very important and the success of our work is directly related to it (J - 1).
>
> It is absolutely necessary for the long-term personnel to dominate the language in order to obtain acceptable success (L - 2).

Why is language ability on the part of long-term personel so vitally important? First, language ability is an obvious avenue for achieving clearer and more effective communication between project personnel and local community members. Problems of misinterpretation which occur frequently when a language barrier exists are greatly reduced when that barrier is broken. Secondly, language ability is beneficial in breaking down the whole range of barriers, not just that of language, that will naturally exist between "outside" mission personnel and project participants. Knowing the language of the local community establishes a point of commonality and aids mission personnel in gaining the trust, confidence and acceptance of community members. Thirdly, language ability is a key to cultural understanding and knowledge. The ability to communicate one-on-one opens the door to an understanding of the beliefs, values and perceptions of a people that

would be difficult to acquire otherwise. Futhermore, much of a society's culture is evident in its language, particularly in very isolated communities. A fourth reason given in support of the necessity of language ability derives from the first three. Achieving clearer and more effective communication, gaining the trust and confidence of local community members, and acquiring cultural understanding and knowledge all contribute to an increasing level of job satisfaction on the part of long-term personnel. The morale of the entire staff is enhanced because of the benefits to the project that accrue when language ability is made a top priority.

> The success of any kind of project would seem to me to be dependent upon proper communication. Most good communication can be acheived only when project workers and those on the receiving end have come to establish a mutual relationship of friendship and trust. This can't really happen unless everyone speaks the same language. . . . Coming only recently to the field and still undergoing the language learning process, I can vividly see in my own situation that the increased acceptance of what I have to say, the increased acceptance of me personally and my own contentment, confidence and ability to accomplish something increases in proportion to my language ability (B - 5).

> Even more important . . . is to understand the culture of the people they are working with. Language is one means for the expatriate to be able to understand or a least a starting point to cultural knowledge (C - 4).

> Language ability for long-term personnel is very important for morale and job satisfaction (G - 4).

> It is important that such personnel . . . know the local language so that they can win the confidence of the local people (J - 6). . . .

> It indicates to the nationals an interest in them for foreigners to speak their language (T - 5).

> Language ability leads to a greater closeness to the people, breaks down barriers and allows more open sharing of problems and issues; it allows better, more effective communication and teaching and reduces the possibility of being misunderstood (U -1a). . . .

Several respondents indicated that long-term personnel should be required to know the local language and that formal language training should be provided by the mission agency.

> The mission [agency] must provide for language study or risk failure and often serious misunderstandings (B - 2).

> Provision of language learning and cultural adaptation programs by the sponsoring organization is highly recommended (T -14).

> Knowing the language is absolutely necessary, and the mission should require all personnel to have those skills and provide whatever is needed for language learning (T -25).

> Language barriers can break a project. One is severely handicapped without the possession of the local language. . . . If the mission agency does not provide the necessary language training, they are wasting everyone's time and effort (V - 3)

While several of the respondents maintained that both long- and short-term personnel should be able to speak the local language, others felt that language ability on the part of short-termers is desirable though not essential.

> Long-term personnel and short-term personnel must by all means be able to speak the language (B - 2)!!

> If short-term workers do not have much language ability, it might not hurt the project as a whole, but for his/her own comfort I feel they should be allowed some chance for language study (B - 5). . . .
>
> It is important that such personnel, long-term or short-term, know the local language so that they can win the confidence of the local people (J - 6).
>
> It is absolutely necessary for the long-term personnel to dominate the language in order to obtain acceptable success, and even the short-termer must have a fair use of the language and also a great willingness and aptitude to learn it (L - 2).
>
> In any event, a basic knowledge of the local language and culture is a necessity for long-term personnel. Short-term personnel should have a survey course of the language and culture and learn basic greetings and terms (T -17). . . .
>
> Knowledge of the language is essential for long-term workers and desirable for short-term workers (AA- 2). . . .

Long-term Personnel

Though the comments with regard to long-term personnel were less emphatic than were those addressing the issue of language ability, there was, nevertheless, an evident concensus of opinion concerning this issue. All of the survey respondents, with the exception of one, indicated a definite need for long-term personnel in the staffing of an agricultural assistance project. The importance of establishing relationships with individuals in the local community, of gaining their trust and confidence, of being accepted and credible in the eyes of project participants

was the number one reason given for the necessity of long-term personnel. Willingness to change will be slight if local community members cannot relate to and/or do not trust those who are seeking to introduce change. Trust and acceptance are not attainable overnight, and building relationships is a slow process.

The need for cultural understanding and adaptation as a prerequisite to project success was another oft cited reason for having long-term personnel on staff. In most cases only those remaining in the project area on a long-term basis are able to attain a level of cultural understanding and adaptation that is great enough to enhance project success. Usually coupled with the emphasis on cultural understanding and adaptation was the need for language ability to facilitate communication--the real key to building relationships, inspiring trust and confidence, achieving acceptance and credibility, and attaining cultural knowledge and understanding. Language ability, though partially achieved through a brief period of formal language study, takes years to develop. To complete the language learning process, an individual must be allowed sufficient time to broaden his capabilities and experience in the language through continued long-term contact with those in the project area.

Of the other reasons given for the necessity of long-term staff, the one most frequently mentioned was the need

for ensuring project continuity. Disruptions in the process of project implementation are largely alleviated through the continued presence in the local community of a core of long-term personnel. Long-termers lend a measure of security to an agricultural program because they have made a commitment to remain in the project area for a considerable length of time. Also, long-term personnel are needed to coordinate the work of short-termers who may not be aware of how the project has progressed and of what the long-term project goals are.

> The manager or leader must be a long-term staff member with general agricultural development knowledge and experience (A - 4).
>
> Long-term staff show a long-term commitment. They inspire confidence and establish relationships (A - 8). . . .
>
> First of all, the culture MUST be taken into consideration, and it takes nearly a full four year term before a person really becomes useful. He must become accepted and trusted, and he must learn to judge by new criteria. It is not enough just to learn the language, but also the thought pattern--why people react like they do (B - 1).
>
> Long-term personnel build lasting relationships, trust and confidence and improve communication and willingness in risk taking and common learning (B - 2).
>
> Long-term commitments are needed by some personnel to attain language ability and to be able to understand and function in the local culture (B - 3).
>
> From what I have seen, it is very important to have long-term (more than five years) personnel who really learn the language and culture and know the local situation (C - 1).

Long-term people are needed to ensure continuity of the project (C - 2). . . .

Long-term personnel, of course, give continuity to the program. . . . [They] are able to identify problem areas and problem people (C - 3).

Generally there should be a mission staff commitment on a long-term basis for up to about ten years. This will allow for enough time to learn customs, make and correct mistakes, gain trust, teach necessary skills, and learn the language (G - 1).

It is important for project leaders to be long-term to provide continuity (G - 4).

I think long-term personnel are much more effective in development. Development starts with people; you have to know them, their language and their customs, and they have to trust you. This takes time (G - 5).

Long-term workers are generally better because they can appreciate the close ties that exist between culture and program success (G -10).

It is a necessity that at least one of the mission staff be long-term in order to provide continuity (I - 1).

It is very important that the agriculturist be long-term to provide continuity and security to the project (J - 7).

The long-term personnel have a distinct advantage over the short-term (though both are important) since long-term contacts build . . . confidence. Through the gaining of broader experience and capability with the local language, long-term personnel can be more effective (L - 2).

Any project must have sufficient long-term personnel who know the culture and language (N - 1).

Long-term personnel are of utmost importance for the correct execution of an agricultural development program in so far as continuity is concerned. Agricultural development takes time. Goals often require five to fifteen years or more

before they are fully realized. . . . Someone needs to have prolonged contact as the Mission Representative in order to establish . . . government contacts and to coordinate efforts with the National convention and Mission in order to remain in step with the overall goals of both groups (T - 1).

The work should be tailored to the people and area where it is being done and not copied from others, hence the need for long years of experience in the area, a knowledge of the language and culture, and a sound background of agricultural knowledge and experience (T - 2).

There is a great need for the mission staff and their families to live and work on the project site. This builds good relations, assists in language skills and allows one to feel the deeper needs of those he works with. Due to a call from God, most mission personnel feel a long-term commitment (T -10).

It has been expressed . . . by the Thais that they appreciate our long-term personnel. They seem to see our interest in the fact that we are staying in the country long-term (T -12).

Long-term personnel are critical to the overall effectiveness of the agricultural program. Recognizing that they are going to invest a significant amount of time with the project, long-term personnel have a higher motivational level to become personally INVOLVED with the program. This basic involvement will take the language learning and cultural adaption and the willingness to establish personal relationships seriously. Frankly it frees the person from the tremendous pressure to PRODUCE long enough to establish a solid foundation for program planning and implementation. Long-term personnel also provide continuity to the project (T -14).

Long-term staff are essential to know the problems, soil and climatic conditions, what works and doesn't, and to gain the trust of the people (T -16).

Long-term personnel are most beneficial in knowing the language and gaining the trust of the

local people in their culture, providing what is necessary for the people to help themselves (T -21).

The long-term personnel are always the most effective because of the cultural understanding, language ability, and general knowledge that they have. . . . Stability and trust of the personnel is what convinces the local farmers to take the risk of change. . . . They change because of the credibility of the staff (T -25).

Normally the longer you have been on site, the better known you are and the better accepted. In developing countries, security is very important. Also, knowledge of language and customs has a very important bearing on transferring technology. . . . By establishing long-range contact and empathy with the local farmers, you can separate real needs from felt needs. By helping one or two felt needs you can begin leading them towards solving real needs (T -26).

Long-term staff is necessary for any real agricultural development. They know the culture, the real problems, the language; [they] can be flexible to new situations. . . . Personnel must be located at the site of the project, not in the capital city (T -27).

I believe long-term personnel are more effective than short-term personnel. One must live among people in a community or language area for some time before a trust is developed beyond just respect for western technology, which quickly fades. An ability to speak the local language adds to that trust and can only be gained over several years (T -31). . . .

Long-term personnel are more effective. They provide continuity, acceptance, credibility. . . . The long-term personnel will know all the ins and outs of the culture and environment (T -37).

Long-term personnel are better than short-term. It takes time to understand all the issues involved: climatic, soil, social, economic, cultural, and political (U -1a).

Long-term [personnel are] essestial for extension work as this involves building lots of personal relationships . . . which takes time (U - 7).

> Long-term personnel are highly necessary for project continuity and for the training of nationals (V - 3). . . .
>
> Long-term personnel establish credibility in the local community. [It] may easily take five years or more [to] become thoroughly knowledgeable about the local community. [Long-term personnel] help to develop the ability to recognize needs, verbalize them, and explore possible methods of providing answers to problems. [They] serve as . . . a home base and source of vital information for short-term personnel. [They] provide the continuity necessary to keep basic patterns of functioning dependable (W - 1).
>
> Long-term personnel are essential to the continuity of a project (X - 1).
>
> Long-term is better for producing lasting change, but fostering of dependence must be avoided (Y - 2).
>
> [Long-term personnel] give continuity to the program and are able to have rapport with the people (BB- 1).
>
> Long-term personnel are essential for building essential relationships (BB- 5). . . .

Short-term Personnel

Most of the benefits associated with long-term personnel are not possible with short-termers, precisely because they are short-term personnel. Short-termers are rarely on the field long enough to build lasting relationships, to inspire trust and confidence in the local community, to attain cultural knowledge and understanding, and to develop an ability to communicate effectively in the local language. Lacking, therefore, in many of the areas considered so vitally important in development efforts,

short-term personnel tend to be viewed with some reservation. Even the advantages associated with utilizing short-term personnel were described by several respondents as minimal due to the time and energy required of long-term personnel in making the short-termers functional, i.e., the need for constant supervision in many cases. Several respondents indicated that short-termers, though contributing in a significant way to the agricultural program, were limited in their usefulness because of their need for more time to adequately adjust to food, climatic and cultural differences. Many short-termers, lay volunteers in particular, are just beginning to "find their way around" when their term of service draws to an end.

The disadvantages associated with short-term personnel led one respondent to state outright, and others to imply, that some short-termers actually "do more harm than good;" other respondents, however, indicated that their project's utilization of short-term personnel had been highly successful. Without the expertise provided by short-term personnel in specific areas, not known by the long-term staff and not available locally, the achievement of project goals would have been impossible or, at best, delayed. In addition to their usefulness in providing expertise, several survey respondents described short-term personnel as invaluable because of their freshness, vigor and optimism which serve to increase the morale of the entire

staff; because they often provide their own support and, therefore, lighten the load for long-termers without financial burden to the project; because of their promotion of the project upon their return "home;" and finally, and perhaps most importantly, because of the vision and understanding of missions gained through their experience as a short-termer which leads several of them to make a longer-term commitment to missions.

> Except for a specific job (e.g., building) or a specific skill, anything less than three years is inadequate to make any mark in the work (A - 3).
>
> Short-termers provide useful specialist inputs (A - 4).
>
> Most short-term personnel require a long-term person to be with them as translator or to help them understand the local situation, so they are often not of much use. . . . An exception is someone needed for a technical job that no one else can do (such as bookkeeping) (B - 3).
>
> Short-term personnel are mostly beneficial as support for the long-term personnel--to do the odds-and-ends so that the long-termers are free to do what they need to do (C - 3). . . .
>
> Some short-term staff would not be here long enough to grasp the culture. . . . Some short-termers do more harm than good (C - 5).
>
> Short-termers . . . bring in fresh ideas (G - 4). . . .
>
> Short-term people can help to meet a specific need . . . [and to provide] expertise in an area (G - 5). . . .
>
> Long-term personnel can develop a narrow perspective unless they have frequent contact with ideas of the outside world. This can happen through the use of short-term staff. [If the term is] too short (less than four years for

someone with no Third World experience), most of the time will be spent in orientation (G - 7).

There are two criteria that are very important for short-term people: 1) an ability to speak the language and/or the use of a full-time translator to make the person functional (this implies costs, too); and 2) having a specific skill that is needed urgently and that cannot be found locally (G -10). . . .

Short-term personnel generally need to work alongside long-term personnel because of their language deficiencies (L - 3). . . .

I see limited benefit for short-term workers. Too much assistance must be given to train them. They are gone before they reach a helpful state (N - 1).

Short-term help is often important since the short-term person can provide expertise that the missionary doesn't have (Q - 2).

Short-term personnel with adequate language and agricultural experience are valuable. Problems of culture shock and lost work time may inhibit the effectiveness of short-termers. Our mission has an orientation program for all new people on the field (S - 3).

It is very helpful if a short-term member can arrive on the field well briefed and able to defend himself in the language. . . . Short-term people help tremendously in the execution of specific projects within the framework of the overall project, especially when a specific expertise may be required that the long-term developer lacks (T - 1).

Their expertise in specific areas can be vital, especially alongside a long-term person who has the insight as to the application of the expertise (T - 5).

Short-term personnel can often receive as much benefit as they give and thus grow in their personal life to greater commitments in service (T -10).

Short-term people are helpful but are handicapped by the language barrier (T -12).

For short-termers to be used effectively, at least one career missionary (with knowledge of language) must be available to coordinate, direct, etc (T -13).

Short-term personnel are helpful and may even be essential to specific projects but not to the overall program, at least not in my case. It will not be practical for me to utilize short-term personnel for more than 59 days since this is the longest period they can stay in Indonesia without a visa. Our mission has a limit on the number of new visas granted each year. That means any visas given to short-term personnel must be done at the expense of delaying long-term personnel--a price the mission is not normally willing to pay (T -18).

Short-term personnel should be used to assist or multiply the efforts of long-term personnel, and only in extreme cases and for a limited time should they be substituted for long-term personnel. Short-term personnel are particularly effective if they have a specialty in a problem area (T -26). . . .

Personally, I see no place for short-term personnel unless there is a long-term (five years minimum) person in charge (T -27).

They can bring a spirit and new ideas that can be lost with long-termers (T -35).

Without a long-term person to help direct a short-term person, he is of little value! The long-termer knows the real needs of the community! A short-termer can only guess!! . . . A short-termer who is a specialist can help if he goes to the area under a long-term person who knows the real problems and can stay longer to apply what the specialist teaches (U - 1)!

Short-termers can provide new ideas, freshness in attitudes/approach, add new impetus to a program, and assist where others may be overburdened (U -1a).

The value of the short-termers is seen most in specialist areas where they can upgrade the the extension staff (mission and national) in specific technologies, rather than the short-termer working directly in local communities (U - 7).

Short-term personnel may be used for a specific micro facet of the whole project (V - 3).

Short-term personnel are useful as technical experts to do a particular job. . . . [They] may be useful for purposes of handling the correspondence (W - 1).

I think short-termers are not very effective without working with others who have been in the country for a long period of time and know the language and customs of the people very well (W - 2).

Very short-term (six months or less) personnel are useful only if they are experts dealing with a specific technical or financial problem or if they work closely with and under the supervision of long-term personnel. It takes the average person some time to adjust to a new community (X - 1).

Short-term personnel can be effective if properly planned and prepared for, but don't expect them to do a whole lot--they'll have enough trouble with their own adjustments (Y - 2).

Short-term personnel are best used in the building phase of the project for the achievement of short-term goals . . . such as erection of buildings or other facilities (AA- 2).

Short-termers give long-term personnel more freedom to go into other areas and do similar work. . . . A short-termer needs to be willing to apply himself to what is already going on (BB- 3).

Short-term personnel can give a real boost if they come with a servant's attitude, offering expertise in a specific area (BB- 5). . . .

My general observations . . . would lead me to think that the shorter the stay and the less

> knowledge of the local or at least the trade language that there is, the smaller will be the benefit to the target group. . . . There may still be an enormous personal benefit to the short-termer and other mission personnel in terms of experience and morale (BB-10).

Agricultural Specialists

The comments with regard to agricultural specialists are somewhat ambiguous since the particular usage of the term by various respondents appears to differ. Many, for instance, expressed a definite need for missionaries who are specialists in the area of agriculture (as opposed to medicine, literacy, or evangelism, et cetera), but who are not agricultural specialists in the sense of being narrowly professional. According to several respondents, broadly educated individuals with a background or previous experience in agriculture are better, or just as well, suited to the work of agricultural assistance than are individuals labeled "agricultural specialists" by virtue of extensive academic training. Though the agricultural specialist holds a key position on the staff of an agricultural assistance project, he must be more than an agriculturist if the project is to be truly successful. As a member of the long-term staff, the agricultural specialist must be willing to learn the language and culture of the local area; to be patient and flexible in meeting the felt needs of the local community; to allow

local community members to participate fully in the process of agricultural development; and to work with other staff members in an integrated program of rural development. The agricultural specialist must be able to put his knowledge of agricultural theory into practical application in the particular area in which he is located. The agricultural specialist need not know all the answers; he must, however, be willing to search for the answers, primarily through establishing and maintaining links with sources of information within and outside the project area.

> Agricultural Specialists: I think this would depend on the nature of the project and whether or not it was aimed at only one particular aspect, or a more general, broader goal. However, speaking in general terms, I feel there is a danger in being "too specialized" and thus not being able to adapt a particular technology to the local situation. The result of this might bring some success while the specialist is around to oversee the project, but long-term benefits might be minimal. On the other hand, I get the impression that some missionaries have tried to do things they weren't qualified for, also resulting in failure. Over the years I think the ideal person is one who has a general knowledge in several areas, who knows his limitations, and knows where further information is available (B - 5).
>
> I feel it is important, if possible, to have agricultural specialists on staff for several reasons: 1) they can support and advise other `generalists' working in projects; 2) they can have a valuable role in training nationals; and 3) they are more easily recognized by the host government as having legitimate and useful contributions (C - 1).
>
> Any missionary with a sound knowledge of farm practices will do (G - 1).

More important than having agricultural specialists is the need for broadly educated people with an agricultural background and an empathy for the peasant (G - 7).

Agricultural specialists are important where low food production is the major problem. But the complexity comes in where the agricultural specialist must learn to become a community development specialist, group dynamics specialist, cultural anthropologist, etc., etc. In short, no one type of specialist can hope to know enough (G - 9).

Long-term staff should include at least one agricultural specialist to give technical direction to the project (I - 1).

An agriculturist versed in a variety of disciplines is ideal, but even a person majoring in Biology or Zoology who has ears to hear and eyes to see could function most effectively (J - 3).

The agriculturist must be technically strong in expertise and/or know where to get the answers (J - 7). . . .

It is very important that the staff have agricultural training so that the farmers can have respect for them (Q - 5).

But again, agricultural assistance is very area dependent--what works well in one area may not work at all in another. People who are not agricultural specialists are not prone to accept this fact and tend to look for solutions on the basis of what someone somewhere else has either done or is doing (T - 2).

Agricultural specialists on the team are very valuable although it must be recognized that agricultural development is a multi-disciplined approach which must make consideration for other fields of study (T -14).

For a successful agricultural program, a long-term agriculturist who knows the local language is vital (T -18).

An agricultural program should have an agriculturist on staff, preferably with an MS or PhD. It would be best if he was in charge (the he is emphasized because most developing countries are male oriented and the men resent or refuse to take directions or guidance from a woman). He should be provided with an intensive study of the language and culture and not be allowed to begin any project until he has successfully completed language study (T -26).

If you are going to do agricultural work, you need an agricultural person--one who has a broad background in agriculture (if possible with experience), one who is able to adapt his knowledge to new situations, and one who is sensitive to the culture and can see the good in another culture (T -27).

Since we're involved in a "wholistic" ministry (spiritual as well as physical development), the agricultural specialist should be capable of both aspects of ministry and therefore long-term also. We don't separate the work (T -31).

[There] definitely needs to be [an] agricultural specialist on staff or it will be very, very slow (T -35).

Specialization is increasing everywhere. Missions must keep up with, and be a part of, this (U -1a).

It would be good to have agricultural specialists if these specialists could get down to being practical and learn to work on the level of the local people (BB- 1).

Some specialists only know theory and often what looks good on paper will not work in any way in real life. Our western ideas and world view are often far too complicated and not any part of the local culture so that the project 'flops' when the specialist leaves (BB- 3).

Role of the "Outsider"

Missionaries can function effectively as catalysts for change provided they come first as listeners and learners. They must allow community members to express their needs and concerns and then challenge them toward discovering the means for meeting their needs. Outsiders may rightly suggest, but the people must be involved in the actual decision making process. The role of expatriate mission personnel must, then, be primarily that of facilitators and enablers, assisting rather than merely directing the national staff and the project participants as they progress toward the achievement of project goals.

> I see overseas personnel as organizers and facilitators, getting together the right people, materials, and ideas and seeing where the mix will lead (G - 5).

> Mission staff (particularly expatriates) can be utilized in the role of catalysts for change. . . . As outsiders with a different perspective, they can introduce ideas that might never be thought of by the local people. The resources they provide allow the people to move from a position of being trapped in a situation to one of being able to make choices about their lives (G - 7).

> Outside staff should come . . . as listeners and learners (J - 3).

> Always try to delegate responsibility! Be an enabler (T -10).

> The farmers are willing to make changes if they have someone to help them in the decision making the first year or two (T -25).

> The project or program must be one of the local community, and the outsider (and by outsider I

> mean any and all who are not part of that local community) is there only to assist the local group to carry out what they want to do for their own improvement. He may suggest, challenge, etc., but should not force his program upon the people unless he wants a complete failure of it. . . . Outsiders must be given assistance to speak the local language and become, as much as possible, a part of the local community (V - 1).

> In the Philippines, I perceive the role of any 'outside' personnel as being either that of 1) helping to start programs, working directly with national personnel from the beginning; or 2) that of a consultant, with his role being determined primarily by the national leaders (W - 6).

> Any expatriate presence must take the role of process helper and not that of solution giver (Z - 2).

Role of Staff--National Training

The training of national staff should be a top priority of expatriate personnel. The community's sense of project ownership grows as nationals are trained to extend the work of, and to eventually replace, the "outside" mission personnel. Project sustainability depends upon a smooth transition from "mission" to "national" control; the training of nationals must, therefore, be continually provided for during the process of project implementation.

> While I feel very strongly about long-term personnel, I have reservations about 'long-term projects.' The danger is that dependency relations can be built up, while the goal is to create self-reliance. Thus, I feel people should be willing to train locals and move on with some provision for future follow-up and encouragement. This may (in some cases) take place in some months, generally some years (C - 1).

Nationals should be encouraged to take over the program. This is important for the sustainability and indigenization of the program (G - 1).

Expatriate mission staff should ideally be working as advisors and trainers of national staff people (G -10).

I believe it is best to develop a national staff that can function without outside help (L - 3).

The person in charge of the agricultural program needs to be constantly training others (P - 1).

Mission personnel must be working themselves out of a job (Q - 2).

The role of the mission staff is to train nationals to take the place of the mission staff--this should be the first priority (Q - 5).

I believe the basic role of the missionary should be one of teaching and training in order to help nations help themselves.

The object is to work ourselves out of different job areas until all areas of the project are staffed by competent personnel who are committed to their own betterment and that of their neighbors (T - 5).

The role of the mission staff should be to seek local leadership as soon as possible to replace the function of the mission staff (T -21).

SUMMARY OF DATA

All survey respondents, with the exception of one, reported having long-term personnel* involved in the

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*Definition of Long-term Personnel: Missionaries who have already served in the area and/or will continue to serve in the area after completion of the project; or personnel assigned to the project for its entire duration.

agricultural work currently being planned or conducted in the area in which they serve. The average long-term staff consists of 1.3 United States citizens, 4.5 nationals, and .6 citizens of other countries for a total of 6.4 persons per staff.*

The number of long-term personnel assigned to the agricultural programs was felt to be adequate in fifty-six (65.9%) of the survey responses, less than adequate in twenty (23.5%), and inadequate in nine (10.6%). The technical and administrative/managerial capabilities of the long-term staff were reported to be adequate in sixty-seven (79.8%) of the survey responses, less than adequate in fourteen (16.7%), and inadequate in three (3.6%). Seventy-three of the survey respondents (83.0% of the total) indicated that there had been no significant turnover in their long-term staff; problems with long-term staff continuity were reported, however, in fifteen (17.0%) of the agricultural programs.

Fifty-three (66.3%) survey respondents indicated that there had been major delays in the implementation of their mission's agricultural program. Twenty-two (41.5%) of

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*Ninety-four survey respondents reported having long-term personnel on their mission staff. Due to an unusually large (and unrepresentative) number of long-term personnel being utilized in eight of the agricultural projects, the "average" staff was calculated on the basis of information provided in the remaining eighty-six projects.

these respondents cited inadequacies in the staffing of the mission (such as lack of personnel needed to adequately carry out the project, unforeseen turnovers in personnel causing disruptions in project implementation, et cetera) as one of the primary reasons for delay in project implementation.

Approximately one-half (45.1%) of the long-term personnel can be classified as "agricultural specialists" on the basis of formal training (some type of agricultural degree) and/or previous experience in agricultural work. Over ninety percent (91.9%) of the survey respondents reported having at least one agricultural specialist on their long-term mission staff. The percentage of "work" time devoted by these agricultural specialists to efforts that can clearly be labeled "agricultural assistance" ranges from five percent to 100 percent, with an overall average of 71.6 percent.* Only 11.4 percent of the agricultural specialists devote 100 percent of their time to their mission's agricultural program. The two major activities engaged in by the agricultural specialists not

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*Several of the survey respondents expressed difficulty in determining the percentage of "work" time devoted by their agricultural specialists to their mission's agricultural program. These respondents indicated that there was no strict division of their time between what could be labeled agricultural assistance and other mission-related activities (most often evangelism and church planting efforts).

directly related to their agricultural work are evangelism and church planting. In addition, many have administrative duties that cover a wide range of activities, some of which do not directly relate to the mission's agricultural program.*

On average, 94.3 percent of the long-term personnel (other than nationals) were reported to have the ability to speak the local language.** Eighty (94.1%) survey respondents indicated that formal language study had been required of long-term personnel prior to their involvement in the mission's agricultural work. Seventy-two (90.0%) of the eighty respondents indicated that the mission agency had provided the formal language study required of their long-term personnel. The average length of time involved in formal language study ranged from two months to two years, with an overall average of ten months. The overall ability of the long-term personnel to communicate and work with members of the local community was rated as adequate by seventy-three (84.9%) of the survey respondents, less

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*The statistics with regard to agricultural specialists were derived on the basis of the information provided in the eighty-six projects previously noted.

**Two projects, having an unusually large (and unrepresentative) number of United States citizens on their long-term staff, were omitted in calculating this statistic.

than adequate by eleven (12.8%), and inadequate by only two (2.3%) respondents.

The average long-term staff receives 84.9 percent of its support (transportation expenses to and from the mission field, living expenses while on the mission field, et cetera) from the mission agency. Sixty-three (78.8%) survey respondents indicated that long-term personnel are fully supported by their respective mission agency.

Over one-half (58.5%) of the survey respondents indicated that short-term personnel* were being utilized in their mission's agricultural program. The average number of short-term personnel (in those programs in which they are being utilized) is 6.0, 2.4 of which have been assigned for less than six months, 1.3 for a period of six months to one year, and 2.4 for a period of more than one year. Approximately one-third (31.9%) of the short-term personnel involved in the agricultural programs are nationals.** Forty-two percent (42.0%) of the short-term personnel can

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*Definition of Short-term Personnel: Personnel assigned to the project (usually for a specified number of months or years) for a period of time less than that necessary for project completion.

**Fifty-five survey respondents reported having short-term personnel on their mission staff. Due to an unusually large (and unrepresentative) number of short-term personnal being utilized in five of the agricultural projects, these statistics with regard to short-term personnel were calculated on the basis of the information provided in the remaining fifty projects.

be classified as technical or administrative personnel; and 46.3 percent can be classified as agricultural specialists on the basis of formal training and/or experience.

The number of short-term personnel assigned to the agricultural programs was reported to be adequate in thirty-seven (69.8%) of the survey responses, less than adequate in twelve (22.6%), and inadequate in four (7.5%). The technical and administrative/managerial capabilities of the short-term staff was rated as adequate by thirty-eight (71.7%) of the survey respondents, less than adequate by twelve (22.6%), and inadequate by three (5.7%) respondents.

Twenty-nine (54.7%) survey respondents reported that the short-term personnel being utilized in their mission's agricultural program have the ability to speak the local language. The overall ability of short-term personnel to communicate and work with members of the local community was felt to be adequate in thirty-two (60.4%) of the survey responses, less than adequate in eighteen (34.0%), and inadequate in three (5.7%).

Approximately one-half (50.9%) of the survey respondents reported that lay volunteers* were being

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*Definition of "Lay Volunteers": Individuals who are actively involved in churches that contribute funds to the mission agency supporting the missionary effort overseas. They have (or intend to have) full-time careers outside the realm of foreign mission work. They normally serve for very short periods of time. "Lay Volunteers" are a subcategory of "Short-term Personnel."

utilized as a part of their short-term mission staff. Three respondents indicated that a very large number of lay volunteers (50, 270, and 400) would be utilized over the duration of their mission's agricultural program. Not including the volunteers being utilized in these three projects, the average number of lay volunteers being utilized in the remainder of the projects is 6.7.* The length of service of lay volunteer staffs ranges from two weeks to three years, with an overall average of 4.5 months.** The average lay volunteer staff receives 24.7 percent of its support from the mission agency. Only four (13.8%) survey respondents indicated that lay volunteers are fully supported by their respective mission agency, while fifteen (51.7%) indicated that lay volunteers were receiving no support.

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*Several of the survey respondents indicated that the lay volunteers being utilized in their mission's agricultural program were also being utilized in other mission-related activities.

**All survey respondents, with the exception of two, reported an average length of service for their lay volunteers that did not exceed one year. The overall average length of service statistic was derived on the basis of this information, omitting the responses (two years; three years) of the two respondents that had reported an "uncharacteristically" lengthy stay on the part of their lay volunteer staff.

ANALYSIS OF DATA

Programs of agricultural assistance conducted overseas by missionaries appointed and sent out by United States-based religious agencies would seem to have great potential for success; for many of the "personnel" problems that characterize, and contribute to the failure of, agricultural projects conducted by government and private development agencies do not exist, or are largely minimized, in the agricultural assistance efforts of these missionary-sending agencies. Because they are normally provided with language training before arriving on the mission field, and because they are expected to continually work at increasing their language skills while on the field, missionaries usually do become, in time, fluent in the local language. Proper communication is certainly a key to project success and being able to communicate one-on-one, rather than having to depend on an interpreter, tremendously enhances the work of the agricultural missionary. Many of the problems described in the literature that stem from an absence or a deficiency of language skills on the part of development workers/consultants are simply not encountered to a significant degree in the work of agricultural missionaries.

The long-term nature of agricultural missionaries is another tremendous asset in the agricultural assistance efforts of United States-based missionary-sending agencies. Missionaries, unlike government extensionists or technical assistance teams described in the literature, are normally in the project area, not for days or months, but rather for years or even a lifetime. Farmers are impressed when an "outsider" has taken the time to learn and to communicate with them in their own language; they are even more impressed, however, when that "outsider" chooses to live and work among them. Becoming a part of the community allows the missionary to develop a rapport with the people that would not be possible otherwise; and the trust and acceptance that come with "belonging" are invaluable in the work of the agricultural missionary. Farmers are often willing to adopt new agricultural practices, for instance, when introduced by someone in the community they know and trust; the words of an "outsider," on the other hand, who may be here today and gone tomorrow, are rarely heeded. Futhermore, because of their long-term nature, agricultural missionaries would seem to have a great capacity for exercising patience in the conduct of their mission's agricultural program. This is not to suggest that missionaries are immune to the "pressure to produce" which tends to plague the work of many development workers/consultants in agricultural projects conducted by

various government/private development agencies; they too are anxious to see results, and they too make mistakes in attempting to speed the process of agricultural development. Nevertheless, by living in the local community on a long-term basis, agricultural missionaries do appear to have a greater chance of freeing themselves of the temptation to abandon the concept of self-help in order "to make things happen now."

Failing to provide an adequate number of vehicles to ensure agent mobility and failing to provide living quarters in or close to an extensionist's area of jurisdiction are two of the major shortcomings of government extension services as described in the literature. By setting up residence within the local community, rather than commuting from a distant urban area, the missionary is able to accomplish far more than the government extensionist who, without adequate transportation and housing, is not able to achieve the close regular contact with the farmers that is essential for successful extension. The efforts of the agricultural missionary, as opposed to the government extension worker, are also made more effective because of the presence of his spouse who is normally involved in activities that strengthen and multiply his own efforts in the local community.

The agricultural missionary, like the government agricultural extensionist who is forced to assume roles normally associated with other government functionaries, is expected to undertake a variety of tasks that are not directly related to the agricultural program of the mission. Though both the missionary and the government extensionist may find themselves overburdened with responsibilities due to their "multipurpose" roles, the missionary appears to have a better chance of avoiding a loss of effectiveness in his role as an agricultural extensionist; for while the "other" roles assigned to the employees of government extension services are often in conflict with their "primary" role, this is rarely the case with respect to the agricultural missionary whose "other" roles tend to complement, rather than conflict with, his "primary" role. The agricultural missionary who spends a significant portion of his time and energy assisting local community members in the organization of a church, school or medical clinic as a part of the overall program of the mission/community is still maintaining contact with farmers who are participating in the agricultural program of the mission; the constant communication that exists between the missionary and community members, whether in the field or elsewhere, is beneficial in achieving the goals and objectives of the mission's agricultural program. Furthermore, many of the "non-agricultural" activities that

the agricultural missionary engages in serve to strengthen and/or create institutions in the local community that enhance the agricultural program of the mission. Schools established initially for the theological training of new pastors often become the setting, for instance, of training programs that combine a theological education with instruction in new and/or improved agricultural practices; people brought together in church congregations may later become the peer pressure groups that are essential for a credit program to function successfully in the community; and community centers, established primarily for "social" reasons, often become a place for farmers to meet and discuss their problems and concerns.

The majority of long-term agricultural missionaries sent overseas by United States-based religious agencies, though perhaps not as narrowly professional as are some of the experts sent out by major aid agencies, are qualified agriculturists on the basis of having had extensive education, as well as practical experience, in the field of agriculture. The agricultural missionaries commissioned by most mission agencies, however, are much more than agriculturists. Though possessing knowledge and skills in the field of agriculture that will hopefully be utilized in the overall program of their mission agency in a particular locality, the agricultural missionaries are trained to minister to the "whole" person; they do not view those with

whom they live and labor as farmers, but rather as individuals who earn a living by farming. The long-term agricultural missionary, like all members of the long-term staff, is important primarily because of the language and cultural competency he is able to achieve, the relationships he is able to establish and maintain, and the continuity he is able to provide.

Though the career missionary continues to be the backbone of the overseas mission endeavor of most United States-based religious agencies, the utilization of short-term personnel has increased dramatically in recent years. Utilizing a mission staff of both long- and short-term personnel appears to be an ideal approach to "developmental" assistance, especially in the case of agricultural assistance. The relatively long-term nature of programs aimed at improving the agricultural sectors of developing countries requires the presence of personnel who will be in the project area long enough to gain language and cultural competency, to establish a relationship of trust and acceptance among community members, and to provide an element of continuity that is so vital in projects of a long-term nature. To expect the long-term agriculturist to be knowledgeable in all areas of expertise required for agricultural assistance, however, is unrealistic especially when considering the many responsibilities that must, of necessity, fall on the

shoulders of those who constitute the long-term mission staff. Having short-termers available who can provide expertise of a technical nature increases the effectiveness of the long-term agriculturist while allowing him to concentrate his time and energies on aspects of the program that can only be effectively undertaken by a member of the long-term staff. The division of labor that occurs in the staffing of the agricultural programs conducted abroad by United States-based religious agencies is indeed a tremendous asset that is largely absent in the efforts of many of the government and private aid agencies involved in agricultural assistance activities in Third World countries.

Though many short-term personnel are volunteers and receive no financial compensation for their participation in mission efforts overseas, the vast majority of long-term personnel are fully supported by their respective mission agencies. The extensiveness of the support systems of mission agencies do, however, vary widely; while some provide for only basic living expes, others have extensive systems of support that include provisions far beyond a basic salary and reimbursement for the expenses associated with transportation to and from the mission field. Many of the missionaries, then, who are appointed and sent overseas by United States-based religious agencies are free from the financial pressure that, according to the

literature, inhibit the work of government extensionists in Third World countries. Indeed, the generous support system of the United States' largest protestant mission agency has been jokingly referred to in the following way: "When most missionaries have a need they go to the Lord, but when Southern Baptists missionaries have a need they go to the Board (Southern Baptist Foreign Mission Board)."

CHAPTER VI

ROLE OF THE LOCAL COMMUNITY

DESCRIPTION

Local community involvement is a very significant aspect of the agricultural projects conducted overseas by United States-based missionary-sending agencies.* Indeed, some agencies enter into areas only when a request for their involvement has been made by the local community. Though the mission agency may offer inputs into the planning process, agricultural projects are normally designed by the agricultural missionary in the field and members of the local community to be served by the project.

Early contact with local community members is desired so that the community will feel from the beginning that the project being designed is truly their own project and not that of some "foreign" mission agency. The agricultural missionary will, therefore, contact local community leaders and local farmers on an individual and/or group basis in the earliest stages of project design. This initial contact between the agricultural missionary and local community members, particularly in a "new" mission area, will serve primarily to familiarize the missionary with the felt needs

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*The summary description that follows is based upon responses to survey and interview questions.

of the community. This allows the missionary to begin to plan the mission's agricultural program along lines that will be welcomed by the project "beneficiaries."

Upon assessing the local situation and the inputs of community members, the missionary begins to formulate the plans for the first in a series of "projects" that will serve to launch the agricultural program of the mission. The attitude of the community toward proposed project objectives and procedures will be carefully guaged by the missionary as he meets again with community leaders and local farmers on an individual and/or group basis. He will, at this point, also begin to identify those individuals in the local community who would most likely be candidates for future on-farm demonstrations or for possible service on the mission's national staff.

In order to prevent extensive dependence on outside resources, as well as to allow for greater involvement on the part of the local community, project plans will usually call for resource commitments on the part of local community members. Project participants are almost always, for instance, required to contribute labor resources and, to a lesser extent, material supplies. The financial input required of the local community is usually minimal due to the inability of many farmers to make such contributions; when possible, however, the community is asked by the

mission to bear some part of the financial burden of the project.

In some projects, community members are paid in cash for their contribution of labor resources; in others, they are given food or agricultural inputs in exchange for their labor. In a great many projects, however, there is no immediate payment for labor contributions in terms of cash, food or agricultural inputs; project participants are simply made to see that their "reward" for present efforts will come later when they begin to reap the benefits of the project made possible through their provision of labor inputs.

Throughout the process of project implementation, the goal of the missionary is to maintain the self-help basis of the project. In some cases, he may have to continually remind the people of where his responsibilities end and theirs begin. He will demonstrate, train and encourage, but he will not do for the people what they are capable of doing for themselves. Local community involvement in the decision making process, though usually present to some degree in the design stage of the project, becomes quite extensive in the implementation stage of the agricultural project.

A major goal of project personnel is to establish a system of communication between themselves and members of the local community. This is most often accomplished by

holding regular meetings with local community members at large and/or with specially selected groups of community members. Visits made by project trained extension workers, regularly held training sessions, and special seminars conducted on a periodic basis all contribute to the development of a two-way system of communication between mission personnel and local farmers. Feedback from local community members may also be obtained by staff personnel through frequent consultations with national pastors, who are quite often able to express the concerns of the entire community. In many projects a "natural" two-way system of communication evolves simply because project personnel live for a long period of time in the local community and therefore become part of the community.

Project sustainability is provided for during project implementation as staff personnel actively pursue a program of counterpart training. In most of the counterpart training programs, nationals are being trained to teach local farmers new and improved agricultural techniques and/or better farm management practices. In some of the programs nationals are being taught general administrative and managerial skills; specialized skills including bookkeeping and accounting (to be utilized, perhaps, in locally established cooperatives); the proper use and maintenance of water pumps, wells, and irrigation systems; and proper animal husbandry, which includes animal disease

prevention and control. In other counterpart training programs, nationals are being taught well-drilling techniques, surveying techniques, marketing techniques and small machinery maintenance.

Though essential to the overall mission program, counterpart training is not, however, without its problems. In many of the agricultural projects, there exists a scarcity of trainable manpower (primarily in terms of educational and technical background) and/or a scarcity of mission personnel to train local manpower. To a lesser extent, the problem may be one of funding and/or a lack of continuity in the staffing of the mission's agricultural program.

RESPONDENTS' COMMENTS

Survey respondents were asked to comment on the various issues involved in the "Role of the Local Community." The comments made by the survey respondents are categorized under the following headings: Local Community Involvement; Self-Help; Resource Commitments; Local Community Knowledge of Local Area, People and Needs; Community Ownership of Project; and Counterpart Training.

Local Community Involvement

The following comments with regard to local community involvement are much like those with regard to language

ability on the part of long-term personnel: they are emphatic and they reveal unanimity on the part of survey respondents concerning the importance of local community involvement as a prerequisite to project success. Though project design and implementation can be, and quite often are, accomplished with little community involvement, the chances for project sustainability are drastically reduced when the local community is not actively involved in the project from start to finish.

> There is no use in the project if the local people do not take interest. . . . Locals must be involved in the project from start to finish (A - 2).
>
> Local involvement . . . is crucial. Anything that is imposed will eventually be disposed (A - 3).
>
> I believe that community involvement should come at the earliest stages and continue throughout (B - 5).
>
> The local community is the single most important factor in any agricultural project. It should be involved from the very beginning (C - 1). . . .
>
> If the people don't take part in the project from the planning through the implementation, they will never understand the project and/or its goals (C - 4).
>
> If the local community is involved in the program, they show more interest in . . . maintaining it. . . . It takes much more time discussing plans with members of the local community, but now they have something for themselves (D - 1).
>
> The role of the local community is crucial. . . . From the first step of planning or needs prioritization, the local community should take the lead. Our role as outsiders is to

facilitate, to encourage, etc., but the local group must do (G - 9).

The local community is the most important factor in an agricultural project. Local community people must be directly involved in planning and all subsequent phases. . . . We had a committee made up of local community members who directly supervised the work of long-term personnel and set objectives and goals (I - 1).

In our situation, the "local community" is the local church. The initiative must come from the local congregation who invites us to come to their village for a specific reason (J - 1).

Of utmost importance to the eventual success of the project is securing the confidence and understanding of the local farmers. . . . They need to be involved (J - 7). . . .

I feel that the participation of the local people is critical for project success. They should be involved as much as possible in all stages of the project (L - 3). . . .

Local participation is a must! ! ! Without it, the program will fail once the outsider has left (N - 1).

The more community involvement from project design to execution, the greater are the chances for success (T - 1).

The role of the local community or the recipients of a project and the extent to which they accept their role are vital factors in the success or failure of the project (T -18).

The community must have an input in the project or they will not feel a part of the project and therefore won't care whether it fails or not (T -23).

The more the local people are involved in the program, the greater the possibility of success (T -25).

Maybe we are biased, but we feel we had a very successful program in meeting the needs of the community. . . . Their request to the new

> communist government to let us return (hasn't happened yet) is an example of our acceptance. It was not based on large money expenditures; it basically was local community involvement (T -27).
>
> The local community can contribute ideas, interest, commitment, and spread the word of the project. They can also rally government support when needed. This is where their involvement in the early planning/design stage can be extremely helpful. The government can meter a project by the people's response (T -35).
>
> The local community should invite the project to come to its area (U - 1)!
>
> The nationals should be involved in the project from the planning stages up. . . . Without local community involvement, the probability for success is considerably lowered (V - 3).
>
> Contact in the early stage is critical. Indeed, the request for such a program needs to come from the people (W - 1). . . .
>
> The local community has the most important role to play in an agricultural assistance project (Y - 1).
>
> Participation of the local community at all levels of planning and implementation and continual evaluation is extremely important. Project success is very dependent on how much we can involve the local community (Y - 6).

Self-Help

As a corollary to local community involvement, respondents emphasized the need for promoting self-help measures in agricultural assistance efforts. In the following sample of comments, respondents discuss the meaning of the term self-help, the importance of self-help,

how to achieve self-help, and the problems involved in promoting self-help.

> If in the local community you can convince a few people that a need exists and that they can do something about it BY THEIR OWN EFFORTS, then you are on the road to success. Self-help is mandatory. In our program we do not give anything away. If it is to be valued, the people must make an effort themselves (B - 1).

> I think self-help projects are the best kind, and may be the only kind that missionaries should be involved in. If a project is to be truly of the 'self-help' variety, it must come largely from the local community and is best if the whole idea is conceived locally; therefore, I believe that community involvement should come at the earliest stages and continue throughout. The project's role should be kept to a minimum where possible, so that when it is all finished the people feel it is truly their own. Their own self esteem is built up and perhaps the next idea that comes along can be accomplished without any outside help. This, however, comes under the 'easier said than done' category, and how to achieve this would vary widely depending on the project (B - 5).

> 'Self-help' has to be enforced or else the project will encourage a beggar mentality. Community members have to be met half-way, yet if they are not willing . . . to help themselves, they should be left alone (C - 2).

> 'Self-help' is the program we follow. It is frustrating for Americans to follow such a program as it demands that the power, authority, etc. be given directly to the peasants. They are responsible. It is especially frustrating when projects don't work out and the expatriate knows that it could have worked if he had had control. (Our chicken project failed because the group didn't want to clean out the chicken coops. I could have done it in one hour, but did not. The chickens got a foot disease and died. . . . The garden projects, however, are a success in this sense. The women have total control. I only participate in giving them positive feedback and encouraging them to continue, etc.) (C - 3).

For a project to be successful, I feel that it has to have a self-help basis. . . . If it becomes just someone doing something for them, then they will take the benefits and the project will have no lasting effects (C - 4).

'Self-help' means that the entire family must be involved, not the man only or even one man and his wife, but the grandpa, grandma, cousins, etc. . . . 'Self-help' doesn't mean that the only ideas are their own. Missionaries give new ideas or help them to learn how to crystallize and put into action their own ideas (J - 3).

If people learn by 'self-help,' they are more apt to see the difference in the old and new methods. This is especially true of accepting new varieties, crops, fertilizers, etc. If they can or are made to utilize them themselves, they can see that the mission was using no magic to get the better results. . . . Perhaps Mexico is not the only country where the following happens, but here if a person is given something, he always expects more (J - 6).

Self-help is poorly understood in Botswana where people use the term to mean securing donations from many agencies/individuals to build a local building, etc (J - 7).

Self-help must include the development of a sense of responsibility among the local people (S - 3).

I think the concept of 'self-help' is of extreme importance. For it to work, the people must realize that the program will help them with a need. . . . It may be that you have seen a need that they haven't yet recognized or that they have accepted as unsolvable. It may be that the first objective of the project is to call the need to their attention, and then show them a practical solution to the problem (T - 7).

The success of most projects will be determined by the 'self-help' initiatives it provides (T -13).

Self-help is absolutely essential to the success of the project. It offers the only hope of continuation of the program after the 'official' termination date. Self-help is best achieved by recognizing that development is not something

that we do for people but rather something they do for themselves. If it is to be achieved we must move from the donor/recipient relationship to a participatory involvement where all feel free to contribute and 'participate' in the process. This demands that the 'experts' be willing to take the role of servants and co-workers with the local community. It is essential that members of the local community be involved from the beginning if it is to be truly participatory and truly self-help (T -14).

Self-help is the only way! The big, big problem is how?! . . . We're always faced by the problem locally and from 'back home'--this thing of doing something now (now--even if it's wrong or not properly thought through). Americans (and I'm one) want to see results now--we of the 'instant culture.' We should start with where the people are, with what they have and can do themselves (T -17).

'Self-help' must be promoted and supported if the benefits of a project are to be sustained. Projects which do not lead to 'self-help' are merely aid--not development. . . . 'Self-help' is not really being achieved in many of our projects here. There is insufficient communication and sharing of information, especially in the top to bottom direction. Goals and specific objectives of projects are little understood by project beneficiaries. Generally, the people expect the Mission to keep on always helping them. In order to truly stand on their own feet they must be told (over and over again if necessary) where the Mission's responsibilities end and where their own begin. In addition, the people need to see/be told something about possibilities and potentials open to them, to have their minds and visions expanded. They need someone to stand alongside them until they gain confidence in actually performing tasks and carrying out responsibilities (U -1a).

If the project is developed for and by the local people, then they will see that the program is fully carried out (V - 1).

If an agricultural project is for the people then they must accept responsibility for its

> implementation. Nothing should be done for the community that they can do for themselves (V - 2).
>
> Project success is dependent on how much we can involve the local community in every phase, avoiding subsidies or incentives to encourage participation and any other scheme that breeds dependency (Y - 6).
>
> Contact with community members and respecting their views and desires is necessary to promote and achieve self-help (AA- 2).
>
> I see myself only as a catalyst. . . . Self-help is the name of the game. Any project or innovation that is to succeed must be initiated and implemented by the people themselves under local leadership. . . . Once the process of community awareness and working together has begun, the program should be self-supporting. . . . The greatest motivation for self-improvement and helping others is the regeneration brought about by Christ in a man or woman's life. When that happens, the harmony and unity, especially among fellow Christians, is a powerful aid to community self-help (BB-10).

Resource Commitments

To ensure local community involvement and the acheivement of self-help, survey respondents emphasized the need for resource commitments on the part of local community members. A commitment of resources is an outward demonstration of an inward commitment on the part of the local community toward the project's implementation and sustainability. Resource commitment gives to community members a sense of ownership and pride in the project that would probably be lacking otherwise. Futhermore, having a stake in the project increases the degree of

responsibility on the part of project participants toward reaching project goals. A willingness to contribute resources is an indication that the project is meeting a felt need of the community--a key to project success.

The emphasis is on making a resource commitment; the magnitude of the commitment and the type of commitment are of secondary importance, being heavily dependent upon project goals and the particular circumstances of the project participants. In most projects mission personnel must be able to guarantee immediate and significant project results for resource commitments to be forthcoming.

> They must pay, be it rabbits, pigs, manioc cuttings, garden seeds or what have you. Any give-away project is doomed to failure. You take away a man's pride (B - 1).
>
> All that the local community can provide in terms of materials, personnel and money binds them to the project, i.e., gives the project local personality or identity--the sense that this is our project and therefore our responsibility. A farmer will put something in only when the odds are good. As one speaker says 'no successors means no success (B - 2).'
>
> Things given free are not valued, but if a community plans what they want and contributes financial and labor resources to the project, one can assume that they really do want it and will take care of it after it is 'finished.' Participation [through the provision of] money, labor, or material inputs is important (B - 3).
>
> In our irrigation project we try to follow this self-help idea by making as much of the labor, money, etc. come from the village itself. In many cases this is often something new as past philosophy has often been to give out whatever help free. To get the local people to contribute, it must be something they think they

want or need. If they are unwilling to contribute then perhaps our project is a little off base. People know what they need and want, and if we must 'bribe' them to do something, maybe we should look to changing some of our own thinking (B - 5).

I think it is very important that the community 'invest' something in the project (money, labor or materials) so that it sees the project as 'its own project' and not that of some foreign organization (C - 1).

If the people aren't taking an active part or doing a good share of the work and providing of the materials, they soon feel that it is a gift and then sit back. If it becomes just someone doing something for them, then they will take the benefits and the project will not have lasting effects (C - 4).

Communities most often respond with enthusiasm (providing money, labor, and materials) when the project meets a felt need they have. If the agency decides the village needs a community center for meetings, etc., but the people want a water system for their village, it's not very likely that the people will cooperate much on the community center (G -10).

If the project involves a demonstration farm such as ours, I don't think it is completely critical that local farmers contribute financially to the demonstration farm. However, by trying ideas on the demonstration farm, the risk is cut for the local farmer. It is crucial that the local farmers pay 100% of the cost of the inputs utilized on his own land since he will be implementing ideas already demonstrated as profitable on the demonstration farm (I - 1).

Farmer resource commitment is helped if they can see potential in the project proposals (J - 7).

It is very important for local community members to be committed in some way (financially or through the provision of labor or material resources, whichever fits best) so that they have a personal interest in the project. This can be encouraged by some early promise of return to them from the project (L - 2).

People do not tend to feel responsible when they have invested little time or money in a program. This lack of responsibility can cause the failure of many programs (L - 3).

In the case of schools, they are accustomed to paying school fees for their children. I charge a 'school fee' for my students (that covers seeds and fertilizer). . . . If the farmer sees he gets much back for his investment, he will make a commitment (T -26).

Project success in our case has not been established as yet, but our goal of success is to hear that they wish to work (to provide labor inputs) (T -35).

No development effort is successful or enduring unless recipients have wanted the program enough to invest a substantial amount of either cash, materials or labor. Local contributions of any combination of the three factors can make a project a success, and the particular ingredients will vary from case to case and program to program. There is no single formula. . . . Farmers will contribute resources in significant amounts only when they are utterly convinced the effort will significantly benefit them (W - 1).

We consider people's participation and commitment of local resources to be very critical to project success (W - 6). . . .

Local resources should be of primary importance. When the farmers use their money, energy, and time for something then they will never let it fail. That's why we encourage credit systems instead of giving away things. Farmers will risk their contribution when things are for their good, when they understand them and they can implement them themselves. . . . Appropriate technologies using local resources will mobilize their support (Y - 1).

[The local community] should contribute as much as possible so they feel that it is their project and their effort. They must have a stake in it (Y - 2).

Local Community Knowledge of Local Area, People and Needs

A project that is not directed toward meeting a felt need of the local community is almost certainly doomed to failure. Consultation with local community members is, therefore, of particular importance in the earliest stages of project design when mission personnel are attempting to identify and prioritize the felt needs of the local community. Local community members must also be recognized as an invaluable source of imformation concerning the local area and its inhabitants; they can provide for "outside" personnel many details that would be difficult to ascertain from other sources.

> The local community must or should provide the felt needs, the direction and the drive (B - 2).
>
> The project must meet real needs. Only local people know what those are. In an 'agent' training program such as ours, trainees must be reliable, responsible, dedicated, and honest. Only local people know how to choose wisely. They know their own (F - 1).
>
> In the early planning stages, local community people need to share their felt needs and how they hope the project will meet those needs (I - 1).
>
> I believe it is basic to project success to make broad contacts with members of the local community in the early planning stage to obtain from them their experience of local needs and conditions, and to gain their interest and confidence in the project (L - 2).
>
> Everything must be done with local feelings and desires in mind (N - 1).

The local community is the most important part of any project. They know what they want and need (Q - 2).

The local community has a wealth of information and experiences that have been 'researched' and 'field tested' for centuries. They are in fact the 'experts.' Under a participatory framework, both groups recognize and consider the strengths each has to offer and a mutual respect develops. It becomes a natural phenomenon for both parties to contribute to the process (T -14).

Local community members are the only ones who can really help the agriculturalist develop an insight for their most critical needs and for a project that will actually go to the heart of those needs (T -18).

Survey teams are sent to the local people to ask them: What are your most pressing problems and needs? What would you like to see in an agricultural program? The results of the survey greatly influence the agricultural program's framework. . . . Farmers clubs are formed through local churches. By working with and maintaining a dialogue with these clubs the mission is able to keep it an agricultural program in tune with the people's needs (T -18).

The local community can add inputs very necessary for any project since they know the area. . . . I believe they can prevent many mistakes (T -20). . . .

The local people must be in on the planning from day one. Programs should be designed to fit their expressed needs. . . . The local people are the ones to identify the problems (T -25).

Local people contribute important local experience and details to a project at all stages. . . . Sometimes their insights are not sought for (U -1a).

What can members of the local community contribute in the early planning stage of the project? Largely a definition of needs and possible local resources. Establishing priorities is also important as few communities can deal with more than one or two programs at a

> time, especially when heavy investment in time, land, and/or material resources is needed (W - 1).
>
> Projects are planned with the people and are 'shaped' according to people's expressed needs, perceived solutions to problems, and local and available resources (W - 6).
>
> Local farmers should be present at each level of the process and their contributions or inputs should be considered with all due attention so as not to do things which don't respond to their needs and dreams (Y - 1). . . .
>
> The interests and desires of the local community are important inputs in the planning stage (BB- 5).

Community Ownership of Project

If a project is to truly be of the self-help variety, if resource commitments are to be forthcoming, and if project sustainability is to be achieved, local community members must feel a sense of project ownership--they must perceive the project to be their own. The local community must be involved from the earliest stages of project design in order to feel project ownership. Ownership cannot be "created" during the process of project implementation; it must be felt from the inception of the project.

> All that the local community can provide binds them to the project, i.e., gives the project local personality or identity--the sense that this is our project and therefore our responsibility (B - 2). . . .
>
> The project's role should be kept to a minimum where possible, so that when it is all finished the people feel it is truly their own (B - 5).

I think it is very important that the community . . . see the project as 'its own project' and not that of some foreign organization (C - 1).

'Ownership' of the project at the local level is absolutely essential (F - 1).

Ownership by local people of the project is basic to continued success, not just initial success (G -10).

Of greatest importance is the feeling of ownership of the project by the local people (J - 7).

Without active participation, there is little identification (L - 3).

All projects must be perceived as their projects (N - 1).

If the community doesn't feel ownership in the design of the project, it will be extremely difficult to create a sense of ownership (T - 1).

It is very necessary to be able to get the idea across that this is their project (T - 5). . . .

The project must be theirs . . . and at some point the impetus for change must begin to come from the community (T -16).

It is their inputs from the start to finish that make the project indigenous. Without their inputs the project will never be more than a foreign oddity that will live only as long as the mission is able to give it artificial respiration. But if the people have helped mold the project from the beginning, then it will be their project, and they will use whatever resources they have to assure its success (T -18).

Community involvement is critical so that it will be their project, not the missionaries'. They will reap the benefit of their labor and be proud of it (T -21).

It is very important for the local community to understand from the beginning that the project is theirs, and they will be responsible for its success or failure (Y - 1). . . .

> Local leadership makes the decisions as to what will be done. . . . I see it as the only way to go. It must be their project from the start (BB-10).

Counterpart Training

Counterpart training programs must be aimed at providing local community members with the skills that will be required not only during project implementation, but more importantly, in the sustainability stage of the project. Counterpart training should be a major goal of all staff personnel; to fail in the area of counterpart training is to jeopardize the attainmemt of project goals and to destroy the chances of project sustainability. The community's sense of project ownership is heightened as nationals are trained to aid in, and eventually to take over, the work of the expatriate staff. Project participants must feel that it is theirs; local community members must be adequately trained to prevent dependency upon "outsiders" who may not always remain in the project area.

> I think the training of local people is critical, as outsiders (even of the same country) cannot be counted on to stay and help . . . the community (C - 1).

> Counterpart training is necessary to ensure independence of the project (C - 2).

> The training of counterparts is critical to ensure the sustainability of the project once the mission staff leaves (G - 1).

> For every local project, such as goats or soil terracing, we attempt to train at least two villagers to be responsible for the daily supervision of the project. Also, local committees are formed to administer the overall work, such as loans and planning. . . . Counterparts are especially crucial in Mexico since we do not know how long the government will allow us to stay as expatriates (G - 9).
>
> Counterpart training programs are essential to the sustainability of the project (I - 1).
>
> There has been no counterpart training formally; an aim is that people in one church who have learned a skill will be able to help another church (J - 1).
>
> Each worker should strive to train at least one national (S - 3).
>
> Results will . . . be more lasting if counterpart training is provided for (T -13).
>
> Counterpart training programs are designed to ensure that the program has some continuity. They do not need to be as formal as they are sometimes established and perhaps work best on an informal basis among several individuals (T -14).
>
> Any key expatriate should have a counterpart; otherwise, the project is successful only until the expatriate leaves (T -17).
>
> A good training program right from the start to provide the local leaders with the necessary skills to operate the project will go a long way in providing for success. Without training the project will fail (V - 1).

SUMMARY OF DATA

Over ninety percent (90.5%) of the survey respondents indicated that members of the local community to be served by the mission's agricultural program were contacted in the early planning or design stage of the project. As a part

of this initial contact, fifty-four (74.0%) respondents reported having conducted interviews with local farmers on an individual basis, while sixty-four (87.7%) reported that they had interviewed local "leaders" (political, social, or religious) in the village or community on an individual basis. Thirty-five (47.9%) respondents indicated that meeting(s) open to all local farmers had been held; thirty-six (49.3%) indicated that meeting(s) open to all local "leaders" in the village or community had been held; and thirty-four (46.6%) indicated that meeting(s) open to all members of the community had been held. Several respondents indicated that meetings with local church congregations and/or church committees had served as an initial point of contact with the local community.

When asked to identify reasons for the initial contact with the local community, fifty-six (80.0%) survey respondents reported that the contact had been made in order to determine the overall attitude of the local community toward proposed project objectives and procedures. Forty-four (62.9%) indicated that the contact had been made in order to gather information (concerning current farming practices, access to agricultural inputs, credit and markets, et cetera) that could be used in refining the project design. To inform local community members about proposed project objectives and procedures was a reason for the initial contact given by thirty-nine

(55.7%) respondents. Identifying members of the local community that could most likely be labeled "agents for change" and, therefore, assume key roles in the successful implementation of the project was another reason for the initial contact according to thirty-seven (52.9%) survey respondents. Nineteen (27.1%) indicated that the contact had been made in order to determine the extent of money and/or labor and/or material inputs that members of the local community would be willing and able to contribute toward project implementation. In citing other reasons for making contact with the local community in the early planning or design stage of the agricultural project, the most oft cited reason was that of determining the felt needs of local community members and obtaining their inputs as to possible solutions.

Thirty-four (41.5%) survey respondents indicated that they were required to obtain the approval of local community members (through some form of consensus or majority rule) before beginning the process of project implementation. Forty-eight (58.5%) respondents reported that no such requirement had been imposed.

With regard to resource commitments, sixty-one (80.3%) survey respondents reported that members of the local community had been required to contribute labor resources toward the implementation of their mission's agricultural program. Thirty-four (44.7%) respondents indicated that

material supplies had been required of the local community, while twenty-one (27.6%) indicated that financial contributions had been required. Money or its equivalent in work and money or its equivalent in material supplies were required of local community members according to twelve (15.8%) and eight (10.5%) survey respondents, respectively. Eleven (14.5%) survey respondents indicated that no resource commitment had been required of local community members toward the implementation of their mission's agricultural project.

While only one-fourth (25.7%) of the cost of project implementation* was reported to have been provided by members of the local community through their provision of money and/or material inputs, nearly three-fourths (72.5%) of the labor requirement for project implementation was reported to have been provided by local community members. Forty-three (60.6%) survey respondents indicated that no immediate reward was being received by local community members for their contribution of labor inputs; the project

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*In the process of data compilation, it became apparent to the researcher that various interpretations had been utilized by survey respondents in determining the cost of project implementation. This statistic should, therefore, be viewed with caution. Some survey respondents, for instance, appeared to have included the cost of supporting missionary personnel in their calculation of project cost, while others did not (on the assumption that the missionaries would be on the field even if the agricultural program currently in progress was nonexistent).

participants would simply stand to gain from the benefits that would accrue in the process of project implementation made possible through their provision of labor inputs. Thirty-one (43.7%) respondents reported that members of the local community were being rewarded for their contribution of labor resources on a cash basis, while twenty-three (32.4%) reported that the reward was being received on a food-for-work basis. The provision of agricultural inputs (seeds and/or fertilizer and/or pesticides and/or small farming implements, et cetera) in exchange for labor contributions was reported by twenty-two (31.0%) survey respondents.

The degree of local community involvement in the decision making process in the design stage of the mission's agricultural program was rated as extensive by twenty-four (28.2%) of the survey respondents. Forty-one (48.2%) respondents indicated that local community members had been involved in the decision making process to some degree, while thirteen (15.3%) indicated that the local community had been involved in decision making to a very small degree. Seven (8.2%) survey respondents reported that there had been no involvement on the part of local community members in the decision making process in the design stage of their mission's agricultural program.

In the implementation stage the degree of involvement of the local community in the decision making process was

reported to have been extensive by thirty-five (41.7%) survey respondents. Some degree of involvement was indicated by thirty-two (38.1%), and a very small degree of involvement was indicated by nine (10.7%) respondents. Eight (9.5%) survey respondents reported that there had been no involvement on the part of the local community in the decision making process during the implementation stage of their mission's agricultural project.

When asked to what degree a system of communication had been established between project personnel and members of the local community, forty (50.0%) survey respondents reported that a system of communication had been established to an extensive degree, and thirty-six (45.0%) indicated that a system of communication had been established to some degree. One respondent (1.3%) reported that a system of communication between project personnel and members of the local community had been established to a very small degree, and three (3.8%) respondents indicated that no two-way system of communication had been established in their agricultural project.

In describing the two-way systems of communication that had been established in their mission's agricultural programs, the most frequently mentioned avenue for communication was that of regularly held meetings with local community members. In some cases, survey respondents indicated that the meetings were highly informal--just a

time for the farmers to get together and talk about the agricultural program; in other cases, respondents described formal meetings between project personnel and specially selected groups of community members (village committees, church committees, village councils, et cetera). Feedback from community members obtained through visits made by project trained extension workers and/or through regularly held training sessions or special seminars conducted by staff personnel served as the basis for the system of communication between local farmers and project staff in some of the agricultural projects. Frequent consultations with national pastors, who are almost always farmers themselves and are thus able to express the concerns of the entire community, was another aspect of the two-way system of communication in several of the projects described by survey respondents. Also frequently mentioned was the idea of a "natural" two-way system of communication which evolves when project personnel live for a long period of time in the local community and become a part of the community.

With regard to counterpart training, sixty-four (78.0%) survey respondents reported that local community members were being trained to serve in a technical or administrative capacity in the process of project implementation in order to provide for project sustainability once mission support was terminated or

significantly reduced. Eighteen (22.0%) respondents indicated that counterpart training had not been provided for in their mission's agricultural program.*

When asked to identify major problems (or anticipated problems) in effectively establishing and conducting a counterpart training program, scarcity or lack of trainable manpower (in terms of educational or technical background) was cited as a major problem by thirty-two (55.2%) survey respondents. Thirty (51.7%) respondents indicated that a scarcity or lack of mission personnel to train local manpower was a major problem, and fourteen (24.1%) reported that discontinuity on the part of the mission staff had adversely affected the process of counterpart training. A scarcity or lack of funds for counterpart training programs was another problem given by twenty-one (36.2%) survey respondents.

ANALYSIS OF DATA

The need for local community involvement in "developmental" programs, though strongly emphasized in the literature, is often difficult to achieve in projects sponsored by the developing countries' governments and in the projects conducted by major donor agencies. The art of

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*Several of these respondents indicated that the nature of their agricultural program did not call for counterpart training.

constructive participation, which according to Roland Bunch must be learned gradually in communities where the people have never before participated in a program of agricultural improvement, is often neglected in large governmental/donor efforts that are typically designed in offices far removed from program "beneficiaries." Two-way communication between project personnel and participants, though vital to project success according to the Morss et al. study, is not easily achieved when those involved in the project do not share a common language or a common perception of the needs and concerns of the community.

The limited financial resources of United States-based religious agencies is, perhaps, a "mixed blessing," especially in the field of agricultural assistance. Though financial constraints prevent such agencies from accomplishing all that they would desire in the way of developmental assistance, the financial constraint does, however, "force" a people- rather than a project-centered approach. Indeed, much of what is accomplished by these agencies is accomplished not with money but through the efforts of dedicated individuals who are more concerned with helping "people" than with conducting "projects."

The long-term nature of the missionary, which requires and at the same time contributes to the language and cultural competency encouraged by mission agencies, is a definite key to the achievement of local community

participation. Community members are much more likely to participate in a program requiring the adoption of technological innovations when the program is being conducted by them in cooperation with an "outsider" who is able to communicate with them and is sensitive to their needs and desires. Furthermore, an "outsider" who is living in the project area and has attained some degree of language and cultural competency is more likely to recognize what should and should not be expected of project participants as they undertake the "art of constructive participation."

In most of the agricultural programs conducted overseas by United States-based religious agencies, local community members are required to provide labor and, to a lesser extent, material and financial resources. By requiring resource commitments on the part of project participants, agricultural missionaries are able to avoid many of the detrimental affects on project success that, according to the literature, are associated with "give-away" programs. Having a stake in the project through resource commitments gives the community a sense of "project ownership;" and being able to see the results of their own labor motivates community members toward greater heights of achievement.

One of the most valuable lessons to be learned from the literature with regard to small farmer development is

the importance of listening to, and learning from, the farmer. By actually living in the local community and having at least some degree of competency in the local language, the agricultural missionary is probably in a better position to take advantage of this lesson than are the agriculturists sent overseas as experts on the technical assistance teams of large donor agencies. Indeed, in an agricultural missionary's first few years in a new mission field little may be "accomplished" in the way of establishing a formal program of agricultural development; for in the missionary's first assignment, most of his time and energy is devoted to establishing relationships with those who will be likely participants in the future programs of the mission. Out of the two-way system of communication that naturally evolves when project personnel are living among, and seeking to relate to, local community members, the farmer's voice is heard and heeded as the voice of experience in that particular locality.

The futility of "doing for" and "giving to" rather than encouraging and assisting the farmer along the road to development is well documented in the literature. In their sincere desire to help those in need, mission agencies have been as guilty, or perhaps even more guilty, as others of abandoning the principle of "self-help" in order to achieve short-run goals. Fortunately, there is evidence that the lessons of past failures have been learned and are now

being incorporated into the overseas developmental activities of United States-based religious agencies. Training nationals to be able to take over as soon as possible in every phase of their mission's agricultural program has become a major task of the long-term missionary and is one of the primary reasons for utilizing many of the short-term workers/consultants who have become such a vital part of the overseas developmental work of mission agencies.

CHAPTER VII

ROLE OF THE HOST GOVERNMENT

DESCRIPTION

The agricultural missionary needs and desires the support of the host government in the country to which he has been assigned.* Indeed, his very existence in the country depends upon a certain degree of government support. The possibility of being denied a visa, for instance, is a constant concern of missionaries, particularly in those countries that do not officially recognize and welcome the work of mission agencies.

To ensure continued government support, the agricultural missionary will seek to establish and maintain a healthy relationship with host government officials and employees at all levels of government. Though support at the local level is usually sufficient to ensure support at the national level, this is not always the case. The missionary will normally seek the advise of personnel in the government agricultural office nearest the mission station, not only to obtain information that could be of benefit to his agricultural program, but to discuss with them some of his ideas and to assure them by his openness

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*The summary description that follows is based upon responses to survey and interview questions.

that he is in no way attempting to compete with the work of the government, if any, in the area. Since the agricultural missionary is normally assigned to an area in which the involvement of the government in the field of agricultural assistance is nonexistent or, at best, minimal, he may have few "encounters" with government personnel.

The agricultural program of the mission is usually conducted with very little dependence on host government inputs. Cooperation with, rather than dependence upon, the host government is evident in most of the projects conducted overseas by United States-based missionary sending agencies. As with so many other things, however, the relationship between mission personnel and the host government varies from project to project, as the particular circumstances involved will vary from country to country.

RESPONDENTS' COMMENTS

Survey respondents were asked to comment on the various issues involved in the "Role of the Host Government." The comments made by the survey respondents are categorized under the following headings: Host Government Support; Host Government Inputs; Host Government--Complement Rather Than Compete; Host Government--Negative Statements; and Role of the Host Government.

Host Government Support

Respondents' comments with regard to host government involvement in mission-related agricultural projects differed significantly from the comments with regard to local community involvement. Though host government support was viewed as essential by most respondents, very few felt that host government involvement is necessary, or even desirable. Having the approval of the host government, particularly at the local level, is critical since overt disapproval could prevent or at least delay the undertaking of the project. Allowing the active participation of the host government, however, may lead to problems/complications that hinder the achievement of project objectives. All projects to be truly successful must have the active participation of the local community; host government involvement, on the other hand, may or may not be warranted.

> It is essential to have host government support, but government involvement hinders the work of the church with the people (A - 4).
>
> Host governments should approve of agricultural projects, but I do not believe active government participation is needed unless it is a very large project (B - 3). . . .
>
> The support of the government at the local level is crucial. As long as they don't raise any alarm, the state and federal government will never raise any problem (G - 1).
>
> In light of the peasant's distrust of government and the inability of government agencies to be

effective because of corruption and personal striving for power and security at the expense of others and of innovative programs, it seems that passive support by the government (letting us do what we're here to do without getting too involved) is the only support desirable in our situation (G - 7).

Ideally we would have active support from all levels of host government in Mexico (in Mexico power is very centralized). In fact, so far we have achieved minimal support. There has been suspicion, e.g., immigration hassels. . . . To me, any support from the government is helpful in legitimatizing a church sponsored project in the eyes of the whole community. . . . I would say that local government support is still our first goal, with continuing efforts to have at least good PR with the State and National government (G - 9).

Too many government and mission organizations have independently initiated projects that did not have government backing only to find out at some point that the government continues to view the project as 'your' project. 'You fix the bridge--you built it.' 'The dam is not generating enough power--you failed.' And often we do simply because we did not take advantage of local resources. . . . Or sometimes a project is a 'failure' because the people won't use it for fear, ignorance, or for a host of other reasons. Clouds of doubt hang around because the government has not placed its stamp of approval on the project . . . so the bridge is never used nor is the generator fully activated because of uncertainties relating to official government action (T - 1).

As Baptists, we generally like to cooperate with government agencies but steer clear of dependence on government. . . . The overall government is very important for any long-term success. If the host government is not interested in its people, the mission project is almost sure to be doomed to failure. However, if the climate is good, it is not necessary to have government help in order for the project to succeed (T - 3).

I think that it is important for the government to recognize the need for the project and approve

it. . . . This is enough for government involvement (T - 7).

It is enough to have the support of the host government (in the form of not opposing our work). We don't need their active participation (T -16).

It is enough to have the support of the host government (T -17). . . .

I believe a good working relationship with the host government is essential and should always be sought. When the government approves of the agricultural program . . . and uses its own resources to propagate the technology practiced in the program, there exists a very good working relationship between the government and the mission program. The mission can maintain political neutrality as well as separation of church and state with this type of relationship. A deeper involvement could become a very delicate situation. . . . Joint effort and cooperation between the mission and government whenever and wherever possible is very important, but the role of each must clearly show that there is no marriage between the two (T -18).

The beginning stages or acceptance of a project is probably the most important time of government support. Success will not ultimately depend upon the government, but upon the local people that are involved in the project (T -21).

Support from the local or district government is of great importance for project success on all matters excepting visas for critical project personnel (people whose expertise is not available or is not available in sufficient numbers locally). This, in the final analysis, is a matter of central government policy. For most other matters, the central government is too far away to matter very much (W - 1).

The approval of the government, both local and national, is required. . . . We find . . . that the less government involvement the better. The USA saying is that 'too many cooks spoil the broth,' and this is the situation in Malawi. Decision-making by government bodies is slow (W - 5).

> Host government approval is absolutely essential. Government guidelines, limitations, restrictions, and desires must be understood from the initial stage of planning (X - 1).

Host Government Input

Survey respondents, in general, felt that mission-related projects should not be dependent upon host government inputs. Two major reasons were given in support of this majority view. First, the host government is rarely a reliable source of inputs, particularly in the sustainability stage of a project. Since budgetary constraints and lack of trained personnel limit the ability of the government in carrying out its own development programs, mission personnel see little rationale in becoming dependent upon government sources for their supply of inputs. Secondly, allowing the host government to become actively involved through the provision of financial and personnel resources, assuming these are available and would be willingly supplied, could lead to bureaucratic entanglements and, eventually, to domination of the project by the host government. Loss of control could jeopardize the achievement of project objectives.

In stating their reluctance to accept government inputs, most respondents were referring to the direct involvement of the host government through the provision of financial and personnel inputs; the respondents were not,

however, totally discounting the possible benefits to an agricultural program that might be forthcoming through the utilization of other government inputs. Most respondents, for instance, felt that the government could be utilized as a supplier of certain materials when able to provide them more readily and at a lower cost than possible through mission-related channels. Others mentioned the necessity of establishing contacts with national and regional research centers, agricultural departments, and local government extention agents in order to keep abreast of any new findings that might be of value to the project.

> After a project has proven itself, government help financially is a help provided it is with a hands-off policy. It is best not to have officially placed government personnel because you have no control over their character (B - 1).

> Our most important contact with the government involves the supply of seeds, new varieties for trials and information from research stations. If finances or personnel are involved, you get caught up easily in the bureaucracy (D - 1).

> In my opinion any project dependent upon host government inputs (dollars or personnel) is doomed to failure. Governments, particularly in this part of the world, cannot be depended upon for a regular supply of dollars. It is better to keep projects at low budget levels and plan for self-support and self-perpetuation (F - 1).

> Having access to some agricultural department services such as subsidized fertilizers and tools is helpful in the short-run but cannot be counted on in the long-run to sustain the program (G - 7).

> Ideally, government inputs are desirable, but practically you are in danger if you heavily depend on civil servants for inputs. They may or may not be forthcoming. Certainly government

inputs in the implementation stage (such as veterinary services) are extremely important and when available must be utilized. But practically speaking, they may not be available due to budget limitations and other problems. In that case you are forced to find your own alternatives in the private sector (I - 1).

The host government should support the agricultural projects of the mission, and it would also give strength to the project and its acceptance (especially in Mexico) if the host government supplied inputs such as insecticides. These material supplies, some of which may be unattainable locally or even in the country, would be easier for the government to obtain than the mission (J - 6). . . .

It is necessary to have the support of the host government, but to have financial, personnel or other inputs from the government could lead to total domination of the project by the government. . . . What is desired is to have a cooperative effort designed to provide real effective help to the farmers themselves (L - 2).

I have many reservations about a government pouring inputs into a mission project. I don't see that as the government's role. I see that as the role of the church and the project's recipients (T -18).

Personally, [I feel] government financial support, as well as personnel, should be left alone. The government, if they are the primary source, can help in providing material supplies (improved livestock, seed from government experiment stations, etc.) (T -27).

Employees working in national government offices (Ministry of Agriculture, Ministry of State Farms, Research Institutions, etc.) can provide valuable advice. . . . [There is a] need for liaison with government people and the keeping up with government developments, approaches and experiences. . . . This is very important (U -1a).

If the government is involved in supplying finances and personnel for the project, the private agency will have very little to say about its operation (V - 1).

> A project should not hinge on . . . national government inputs. It should look to local resources. Only in very large-scale projects should national government resources be requested. National level personnel can be counterproductive, and financial/material inputs imply control and can lead to problems (BB-10).

Host Government--Complement Rather Than Compete

Several respondents emphasized the importance of complementing, rather than competing with, the agricultural programs of the host government. To avoid open hostility and achieve a good working relationship with host government officials requires that mission-related personnel support rather than supplant the agricultural programs of the host government. Duplication of the work already in progress in a particular area under the auspices of the host government would not only be viewed as an intrusion by the government, but would, in addition, be an obvious waste of the limited resources of mission agencies. Every effort should be made to encourage and support the host government in all it is attempting to do in the genuine interest of agricultural development. Mission-related efforts should be limited to those geographic areas and to those aspects of agricultural development that the government either will not or cannot address at the present time. According to several respondents, there is no place for mission-related agricultural assistance in

countries whose government is actively and effectively involved in the area of agricultural development.

> In the case of our irrigation project, the local government does do similar work at times. However, we feel that if the government is helping in one village, we will go to another as we do not want to appear to be competing in any way (B - 5).
>
> It would be ideal for the government to take over our function, i.e., to do extension work. However, they don't as yet view this as important so it is our job to fill the void (C - 2).
>
> An agency must work with the host government. If they provide a service, we should not duplicate that service. Often the reason we are here is because the need isn't being met. . . . An agency must have a working relationship with the national government. A good policy is to work within their framework (N - 1).
>
> As a result there is a definite gap between top agricultural administrative personnel and the local farmers or villagers themselves. Agricultural missionaries fit in nicely and complement the government at that very point of need. We have strong contact with the villages and people. We also help the government officers and programs with our knowledge and ability; they appreciate it and help and encourage us as a result. . . . It is a sort of mutual aid society. That is the way it should be in this area. The government should not attempt to control the projects, which happens when they become involved financially, etc. Neither should we cause trouble for the government agricultural programs. . . . We consulted national, provincial, and local agricultural officers, local farmers, pastors, district chiefs, and government officials before we started our program. We asked them how we could fit in the area and how we could fit in with the already existing agricultural programs (T - 2). . . .
>
> The nation now has quite an extensive infrastructure or superstructure, at least government wise. There are technical personnel stationed from one end to the other in

> development--agriculture, health, nutrition, etc. Many of the personnel are expatriate staffed and funded by donor agencies from the developed nations. With only a small population of less than a million, the per capita of outside input is extremely high. Anything missions would try would only be duplicating and competing with what the government is already trying. Missions should really be only addressing its scarce resources to the hurting peoples--those that are overlooked (T -17).

> Malawi has a very strong and effective Agricultural Ministry. Agriculture is actively promoted and supported. There are some gaps. . . . I believe that a mission project should be totally mission controlled. I do believe that every effort should be made to cooperate with and complement the programs . . . of the host government. . . . In Malawi the government has done an excellent job of developing a road-railroad network that facilitates transport of inputs and produce. They have a good research system. The extension system has some weak spots. I try to fit in there (T -26).

> Every effort should be made to identify with the programs of the host government and work toward making them successful. . . . Do not compete (BB- 5)!

Host Government--"Negative" Statements

Many survey respondents were quite critical of the host government in the particular country with which they are associated. According to several respondents, the need for mission-related agricultural projects exists only because of the failure of LDC governments to assume proper responsibility in the area of agricultural development. Unfulfilled promises abound even in those countries in which the government has declared agricultural development

to be a top priority; at present, few LDC governments can be depended upon to carry out unassisted an effective program of development in the agricultural sector of the economy.

Projects designed and implemented by LDC governments fail for a variety of reasons. First, the personnel involved in designing the projects are normally far removed, both in terms of geographic location and mind set, from the community members who are to benefit from the project. They are unaware, in most instances, of what the local community desires in the way of agricultural assistance, as there is usually no attempt to involve the local community in the design stage of the project. Projects are imposed upon the people in a manner that precludes "community ownership" of the project.

Officals in LDC governments are often tempted to plan expensive, grandiose projects that utilize the type of high-technology that they have been exposed to in their contacts with the "West." Many government sponsored projects are, therefore, unacceptable because they are too complicated and/or they require too much of a future financial commitment on the part of local community members.

Vested interests on the part of government officials also prevent the development of the agricultural sector. Though the need for more of a focus on the small

subsistence farmer has been stressed in recent years even in government planning, government programs in much of the Third World continue to be "urban-biased"; they often give priority to projects that will increase the export earnings of their country so that their focus is normally on the large commercial farmer and the development of new cash crops.

Government support of research and extension is grossly insufficient in most Third World countries, and little effort has been made to coordinate the work of researchers and extensionists. The lack of properly trained and motivated personnel is a major problem that plagues research and extension services throughout the Third World; many LDC governments have failed to address the problem in any concrete way.

> In a country like Zaire, if the host government takes too active a role, the project is doomed to failure. Government projects are grandiose, expensive, started up with elaborate bureaucratic planning, and the naming of highly paid personnel. . . . They are ineffective. The less the government has to do with setting up a project the better. . . . The government pushes techonology, but ninety percent of the technocrats know nothing about farming. As far as I know, no Minister of Agriculture in Zaire has had more than a passing knowledge about agriculture (B - 1).

> Usually government projects are planned at a high level without consulting the local people (B - 3).

> Appropriate projects and presentation in a culturally acceptable and understandable way is often not that easy for the local government for the same reason it is not easy for western missionaries. That is, at least in Northern Thailand, the government (ethnic Thais) must work

with people of a totally different culture, language and race (in our case the Karen and any number of other Hill tribes). Often projects are begun with good intentions, but create bad feelings and misunderstandings because those instigating the project didn't take time to get to know the people (B - 5).

There are many government extention workers in the rural areas, but the majority of them don't want to be there. They prefer to live in the cities. Their attitude is BAD; they have an education and feel that they are, therefore, superior! . . . The government does not have the funds for them to operate efficiently. What good are they (C - 3)?

I am writing from my experience here in the Central African Republic where the government is unable and unwilling to be really concerned about the people. If the government would just let the people alone when they do try to do a little on their own, it would be a great help. When someone starts to do something and makes a little money, there are always some officials there wanting taxes or money so that they can continue. One area where the government has been a real hindrance here is in the area of developing animal traction. When a person starts to use an oxen for plowing, there ia a $200 tax. If you just keep oxen to eat, then there is no tax. The same thing is involved in marketing. Every time you go past a check point (and they are frequent) with a truck load of produce to be sold at market, you have to pay a bribe. By the time you get to market, the profit is gone. Another area where the government is detrimental is in fixing the price of food very low so the people in the towns can live cheaply at the expense of the more numerous rural people (C - 4).

The government has a scheme for extension with fieldworkers over a number of villages, but they work only for themselves or big farmers (D - 1).

My experience in Latin American countries has made me skeptical at best of direct government involvement in programs of private agencies. There are too many unfulfilled promises, too many government agricultural staff that do absolutely nothing, etc., etc. The reason that Christian

development agencies are founded in the first place is to benefit people who never receive help from the government (G -10).

My experience . . . has been that the need for mission-related agricultural work is directly created by the failure of government civil servants and programs to function properly. The area where I am has a government dairy farm which has been in existence for at least ten years. It has a large staff and budget. This program has not helped local farmers in any significant way due to indifference on the part of the staff. The extension staff rarely holds a farmer meeting or visits farmers. . . . If government programs had adequate and properly motivated staff as well as sufficient budgets, there would be little need for mission-related agricultural projects (I - 1).

There is a government agricultural organization in the area staffed by government paid 'specialists.' They do most of their work in the office and not in the fields, or so it seems. People get by without them for the most part since many of their projects are created elsewhere and imported. Their projects often demand outside inputs as well and are focused on cash crops of benefit to the government (J - 3).

Here in Zaire . . . none of this is being done and an absolute state of stagnation exists in agriculture. The one research program of manioc is a bright light in providing a higher yielding, well adapted variety. We as a church-related group can do a limited amount of dissemination, but our resources (money and manpower) severely limit the number of people we can help using this new variety. The government employs hundreds of agricultural agents who are absolutely ineffective in promoting agriculture (J - 4).

One big problem we have in working with the government is that there is so much linkage of votes with government aid. Programs are handed out in paternalistic style in exchange for votes (L - 3).

The government's program, at least here, does not concentrate on small farmers so that government participation is not received. Government

workers, who have quotas for output, work with richer, easier to work with people (Q - 1).

Often the government is so detached from the community that they cannot be very effective in helping to plan or implement a project (Q - 2).

The case of many Third World countries such as ours is that the government does not have enough trained people in the agricultural ministry to meet all the needs. They are too short-handed. As a result, the few who do finish university or graduate from agricultural colleges . . . are put in top administration positions where they are swamped with paper work and administrative duties and are saddled with the job of trying to accomplish far too great a task with untrained or unskilled people in lower positions. As a result there is a definite gap between top agricultural administrative personnel and the local farmers or villagers themselves (T - 2).

When a government gets involved, they make the project too complicated and expensive; the local people cannot duplicate it so it goes no further. . . . I think that the involvement of the local people with labor and local materials is much more important (T - 7).

The black cultures of the Caribbean tend to emphasize jobs and activities that produce the largest income the quickest. There is an obvious lack of long-term commitment on the part of governments to agriculture. Tourism provides quicker, easier United States dollars (T - 9).

The gap institutionally, technology-wise, is in information transfer. In this and other nations, there isn't the clearly laid out function of extension as in the United States, that is a three-way cycle of University Academics, Research and Extension [each interacting with the other]. Often here it is research for research's sake and so on. They (the extension and research functions) are separated instead of being in one institution that is like-minded in purpose, pushing wholistic education. But there is some light with the removal of the government agricultural college (the only agricultural school) from a ministerial level to the university level. The extension service,

however, is still stuck away and research is off in left field. . . . Things are further aggravated by the fact that research, extension, and government agricultural policy is determined to copy the high-tech of the Western temperate environment for use and application in the Third World dry or semi-arid tropics (T -17)!

If an agricultural program is going to help the farmers, it must be designed to survive on its own. Under present conditions, promises from the government very seldom come up to anything close to need. . . . The host government usually concentrates on the dramatic, high-tech type program and overlooks the small individual farmer who makes up eighty to ninety percent of the farmers and are the most difficult to reach (T -25).

I heard of one program in another country that the Baptists helped by seconding a man to the project and providing the funds to train local farmers. The government leaders of the project wanted high technology for their people. Our agriculturist was frustrated and thwarted at every turn until the project died (T -26).

My responses to host government involvement may seem negative. If so, it's only due to the usual instability I have seen in my host country's government and also because of its goals which reflect a strong 'urban bias' and not that of the rural poor. Usually the government wishes to catapult the rural poor into a marketplace situation which is not reliable and involves too much risk (T -31).

Government extension workers have been severely handicapped by inadequate means (e.g., transportation) for carrying out their work (U - 7).

We wish we could help ensure the availability to local farmers of necessary agricultural inputs, but it isn't easy. Often seeds are sealed in government warehouses at planting time, and they are not released until it is too late because prices have not been decided. They are often of poor quality. . . . It is a continuous scramble to ensure the purchase and delivery of useful inputs in time and good condition from wherever they can be obtained. Ready cash for purchase whenever they are available is necessary (W - 1).

> Given the historical abandonment of the project area by the government, the isolation of the area, the fact that traditionally all governments worldwide have not been supportive of Indian groups, and the current economic and political situation where the national budget is being strongly oriented to military objectives, it would be a mistake to plan for the government to take over the agricultural assistance projects. The local government, especially the Miskitos, must be involved in all phases, but the project itself must be designed and implemented to continue on its own without government inputs of any kind (Y - 6).

> When there is much participation of the host government, the project often gets bogged down in red tape, regulations, and paper work (AA- 2).

> In my experience the host government is unable to do very much for the people. If any help was to come from the government, it would involve a lot of paper work (BB- 1).

> I have not had much experience with host government involvement. They are glad to see someone else doing the work and are glad to be consulted and kept up to date on progress, but they will do almost nothing in terms of input of personnel, finances, or long-term planning to ensure the ongoing of the program (BB-10).

Role of the Host Government

A few respondents commented on what they believe to be the role of the host government. Most gave no indication, however, of the extent to which "their" host government is fulfilling its perceived role.

> I think the role of the national government should be to instigate large-scale projects, but local officials should be the ones to get it to the people (B - 5).

> The host government's role is to recognize the agency and provide cooperation and support;

respond to requests for disciplinary action if government machinery fails at the local level; handle all input supply and ensure a timely delivery in sufficient quantities at reasonable consistent prices; and in the matter of finances, ensure consistent policies applied to all classes of society, programs that account for illiteracy, and programs that are supervised to decrease misappropriation and abuse. (It is demoralizing for a small farmer who has been persuaded to repay a reasonable size loan by your program staff, when his nonprogram neighbor is not repaying a grossly inappropriate loan and is not suffering for it) (G - 4).

Governments should be building infrastructure such as canals for irrigation, roads to get farm products out of the boonies, basic research, seed distribution, etc (G -10).

For our current work the host government is required for: agricultural research (national level), agricultural extension, provision of inputs, and marketing (district level). Not all . . . run 'smoothly' and there are definite gaps in the services of the government. When this happens, we try to work with the local village people in finding alternatives (J - 1).

I believe the host government has a crucial role in the wide application of agricultural development. They are the only group with sufficient resources to broadly bring benefits to the rural population. First, they need to generate suitable new technology, i.e., new varieties, new techniques, and whole new types of agriculture (fish farming, rice culture, etc.). Then they need to train and place effective agents to disseminate the technology (J - 4).

The government can assist in a tangible way by allowing tax free importation of agricultural supplies, subsidizing fertilizers, fuels, etc (V - 2).

Church World Service has a special agreement with the Pakistan government which allows duty-free import to Agricultural, Medical and Vocational Training programs. We use this facility mostly for the importation of vehicles (W - 1).

> The role of the host government is to: 1) conduct ongoing research; 2) provide good quality seed and other inputs as necessary, with minimal or no subsidy; 3) encourage viable credit institutions; and 4) provide guaranteed price support for certain key crops (AA- 1).

SUMMARY OF DATA

When survey respondents were asked at which levels of government it was necessary to submit project proposals, the Office of the President received three (3.8%) positive responses, the Planning Ministry sixteen (20.5%), the Agricultural Ministry thirty-six (46.2%), State Government authorities twenty-two (28.2%), and Local Government authorities received thirty-three (42.3%) positive responses.

Three (3.8%) survey respondents indicated that the Office of the President had been contacted or consulted with in the design stage of their mission's agricultural program, and fourteen (17.9%) respondents reported that the Planning Ministry within the host government had been contacted concerning project proposals. The Agricultural Ministry was contacted or consulted with in the design stage according to thirty-four (43.6%) respondents, while State and Local Government authorities were contacted according to twenty-eight (35.9%) and forty-two (53.8%) survey respondents, respectively.

In response to the question "Which levels of government offered at least passive cooperation (in the sense of not raising up obstacles) in the design stage of the project?," twenty-one (26.9%) respondents reported that the Office of the President had offered passive support; twenty-six (33.3%), the Planning Ministry; forty-nine (62.8%), the Agricultural Ministry; forty-two (53.8%), State Government authorities; and fifty-six (71.8%) reported that Local Government authorities had offered passive cooperation in the design stage of their mission's agricultural program.*

Only one (1.3%) survey respondent indicated that the Office of the President had been actively involved in the design stage of their mission's agricultural program. This involvement had been in the form of personnel inputs. In one (1.3%) case the Ministry of Planning was reported to have been actively involved through the provision of financial inputs; in two (2.6%) cases through the provision of personnel; in one (1.3%) case through the provision of

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*The researcher urges the reader to exercise caution in interpreting this data. For instance, though only twenty-one (26.9%) respondents reported that the Office of the President had offered passive support, the researcher does not believe that the remainder were indicating that the Office of the President did not offer passive support. The researcher feels that most respondents were responding to the question only if they had had contact with the particular level of government in question. Only one survey respondent spoke of overt government opposition to his agricultural program.

material supplies; and in two (2.6%) cases through the provision of research findings. The Agricultural Ministry provided finances in six (7.7%) projects; personnel in nine (11.5%) projects; material supplies in ten (12.8%) projects; and research findings in fourteen (17.9%) projects. The State Government authorities were involved in the design stage of five (6.4%) of the agricultural programs through financial contributions, in ten (12.8%) programs through personnel inputs, in seven (9.0%) programs through the provision of material supplies, and in eleven (14.1%) programs through a sharing of research findings. Five (6.4%) survey respondents reported that Local Government authorities had been actively involved in their mission's agricultural program through the provision of financial inputs; eleven (14.1%) reported involvement through personnel; nine (11.5%) through material inputs; and seven (9.0%) respondents reported Local Government involvement through the sharing of research findings.

When survey respondents were asked which levels of government were being contacted or consulted with in the implementation stage of their mission's agricultural program, the Office of the President received six (7.8%) positive responses, the Planning Ministry thirteen (17.1%), the Agricultural Ministry forty-five (59.2%), State Government authorities thirty-three (43.4%), and Local

Government authorities received fifty-four (71.1%) positive responses.

Twenty-five (32.9%) survey respondents reported that the Office of the President had offered at least passive cooperation in the implementation stage of their mission's agricultural program. Twenty-nine (38.2%) respondents indicated that the Planning Ministry had offered cooperation, while fifty-two (68.4%) indicated that the Agricultural Ministry had offered cooperation. State and Local Government authorities have offered cooperation in the implementation stage according to forty-nine (64.5%) and sixty-one (80.3%) respondents, respectively.*

In the implementation stage of their mission's agricultural program, financial inputs have been received from the Office of the President in two (2.6%) cases; from the Planning Ministry in two (2.6%) cases; from the State Government in four (5.3%) cases; and from the Local Government in four (5.3%) cases. Personnel have been provided during the implementation stage by the President's

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Office in two (2.6%) projects; by the Planning Ministry in two (2.6%) projects; by the Agricultural Ministry in fourteen (18.4%) projects; by the State Government in ten (13.2%) projects; and by the Local Government in ten (13.2%) agricultural projects. With regard to the provision of material inputs, respondents reported that in one (1.3%) case the Office of the President was involved; in one (1.3%) case the Planning Ministry was involved; in twelve (15.8%) cases the Agricultural Ministry was involved; in eight (10.5%) cases the State Government was involved; and in thirteen (17.1%) cases the Local Government provided material inputs in the process of project implementation. Research findings have been received from the Office of the President in one (1.3%) program; from the Planning Ministry in two (2.6%) programs; from the Agricultural Ministry in fourteen (18.4%) programs; from the State Government authorities in nine (11.8%) programs; and from Local Government authorities in six (7.9%) agricultural programs.

Fifty-three (66.3%) survey respondents indicated that there had been major delays in the implementation of their mission's agricultural program. Nine (17.0%) of these respondents cited unanticipated governmental interference or failure of the host government to live up to previously made commitments as one of the primary reasons for delay in project implementation.

In response to the question "Which levels of government have made a commitment to actively support the agricultural work begun by the mission once mission support (in terms of personnel and/or funds) is terminated or greatly reduced?," three (3.9%) respondents reported that the Office of the President had made a commitment; three (3.9%), the Planning Ministry; twenty-three (30.3%), the Agricultural Ministry; ten (13.2%), State Government authorities; and ten (13.2%) respondents reported that Local Government authorities had made a commitment to actively support the agricultural work begun by the mission in the event of a termination or reduction in mission support. According to survey respondents, the commitments made by various levels of the host government were most often in the form of securing the agricultural inputs necessary for project sustainability and continued extension work in the project area (through the government extension network).*

When asked if agricultural development is a priority in the development goals of the host government in the country in which they are conducting their agricultural

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*Several respondents indicated that the agricultural program of their mission was aimed at a level of self-sufficiency that would not necessitate a dependence on government inputs after the "official" termination of the project. The researcher is of the opinion that this is true for most of the agricultural programs.

program, seventy-four (90.2%) respondents answered in the affirmative,* seven (8.5%) answered "no," and one (1.2%) respondent indicated that he "didn't know." According to seventy-one (86.6%) survey respondents, their mission has attempted to ensure that their agricultural program fits in with the overall objectives of the host government. Five (6.1%) respondents indicated that no such attempt had been made,** and six (7.3%) indicated that they did not know whether or not their mission had attempted to develop an agricultural program that would fit in with the host government's overall development objectives.

ANALYSIS OF DATA

The relationship between the mission personnel involved in the agricultural assistance efforts of religious agencies abroad and the host governments in the countries to which they have been appointed is one that cannot be broadly defined. In countries whose official position is negative toward the work of missionary groups, the relationship may, at best, be precarious. Some

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*Several respondents indicated that though agricultural development is a stated priority of their host government, it does not appear to be a priority concern in actual practice.

**These respondents were among those who reported that agricultural development was not a priority concern of their host government.

governments, on the other hand, welcome the work of missionaries and may actually initiate the invitation to them to come to their country to begin to work in a particular area of need, pledging to them their full support and cooperation. Most of the relationships between missionaries and host government officials/agencies lie, however, on a broad spectrum between the two extremes of open hostility and active support and cooperation.

Because most mission agencies refuse to take a political stand in a foreign country, missionaries are often able to begin or to continue to work in countries that have been largely abandoned by others for political reasons. Indeed, missionaries are encouraged to establish and maintain a healthy relationship with the host government in the country to which they have been appointed regardless of the views expressed by the government. Missionaries avoid conflict with host government officials/agencies by exhibiting an attitude of cooperation rather than competition. Rather than duplicating the efforts of the government in a particular locality or in a particular area of need, for instance, they work with the government, when requested, to make its programs more effective.

Most United States-based religious agencies are involved in developmental assistance as part of a "wholistic" ministry; therefore, when the physical needs of

a country's people are being adequately addressed by the government or other groups or agencies involved in development assistance, mission agencies are content to focus primarily on the spiritual aspect of their overseas ministry. Because of their limited resources and their desire to work in those areas of greatest need, mission agencies normally choose to concentrate their developmental efforts in localities that have not been entered into by the host government or any other group or agency.

Though missionaries work toward enlisting host government support for the developmental programs they conduct overseas, they rarely solicit the active cooperation of host government personnel/agencies in their programs of agricultural assistance. Reliance on government finances and personnel, for instance, is normally avoided as budgetary constraints and lack of trained personnel are among the primary reasons LDC governments are unable to carry out successfully their own efforts in the area of agricultural development. A dependence on government inputs, missionaries fear, might also lead to beauracratic entanglements and, eventually, a loss of control of the project. To keep the project operating on a self-help basis, with the local community feeling a sense of project ownership, often requires that mission personnel shelter the project from the influence of the government which, according to the literature, may have

national priorities that conflict with the achievement of small farmer development.

Agricultural missionaries, though careful to avoid dependencies on host government inputs that might prevent the creation of self-sustaining activity in the local community, do take advantage of the agricultural research findings of regional and national research centers funded and staffed by the host government. As mission agencies rarely have the funds or personnel required to establish research centers of their own, they must depend upon others to provide research findings that can be of use in their agricultural programs. The relationships that develop between the agricultural missionary and personnel in reaearch institutions often, however, become mutually supportive relationships; for while the missionary depends upon the researcher to be kept informed of the latest agricultural developments, the researcher, in turn, depends upon the missionary to provide feedback from the field. The missionary is also open to utilizing the government as a supplier of certain materials when the government is able to provide them more readily and/or at a lower cost than possible through mission-related channels. In other words, agricultural missionaries, like Albert Mayer described in the literature, are trained to capitalize upon relationships that they have been able to establish with host government personnel/agencies.

CHAPTER VIII

ROLE OF ATTITUDINAL AND INSTITUTIONAL FACTORS

DESCRIPTION

In conducting the agricultural program of the mission, the missionary is careful to give due consideration to the attitudes of local community members toward life and work.* In fact, the missionary will usually spend his first months on the mission field simply getting to know the local people and the local situation so that all projects conducted by the mission are as free as possible from attitudinal hindrances to project success. Often the work of the mission will be a positive force in bringing about attitudinal changes in the community that will help to speed the process of development.

The mission will also attempt, when necessary, to address institutional hindrances to agricultural development. In many of the project areas, for instance, farmers have no access to credit from any local source. In those areas where there is access to credit, it is available primarily through local private moneylenders and, to a lesser extent and on a more limited basis, through local rural credit cooperatives. Often the private

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*The summary description that follows is based upon responses to survey and interview questions.

moneylenders and the local credit cooperatives are charging rates of interest on loans that are excessive for the farmers in the area.

To make credit more easily accessible to members of the local community has become a major goal in a significant number of the agricultural projects conducted overseas by United States-based missionary-sending agencies. In many of the projects, the creation of a revolving loan fund has served as the primary method of increasing credit accessibility in the local community. In some project areas, local community members participate with project coordinators in the actual creation of a credit institution, such as the establishment of a credit cooperative or a credit union. In other project areas, missionaries attempt to increase credit accessibility by assisting local community members to gain entrance into already established credit institutions. In still others, project personnel are actively encouraging the host government to establish credit institutions in the area being served by their mission's agricultural program.

Steps to increase the ability of local farmers to market their agricultural output are also being taken in a significant number of the projects being conducted overseas by United States-based religious agencies. These steps include the development of marketing services (such as the establishment of a local marketing cooperative); the

development of transportation networks to and from local and/or regional markets; and encouraging the host government to establish marketing institutions in the area being served by their mission's agricultural program.

In addition to making credit and marketing services more accessible to farmers, many of the mission programs have the goal of aiding local community members to reduce post-harvest crop loss. Measures being taken toward the prevention of post-harvest crop loss primarily include the building of new storage facilities and the provision of insecticides to prevent the destruction of stored crops. In some projects, storage facilities already existing are being repaired to increase their effectiveness, and in a few projects the mission is helping to make available post-harvest machinery as a measure against post-harvest crop loss.

RESONDENTS' COMMENTS

Survey respondents were asked to comment on the various issues involved in the "Role of Attitudinal and Institutional Factors." The comments made by the survey respondents are categorized under the following headings: Lack of Cooperation; Superstition; Risk Avoidance; Paternalism and Dependency; Negative Attitude Toward Farming; Food Customs and Preferences; Fatalism; Prejudice;

Traditions; Addressing Attitudinal Factors; and Addressing Institutional Factors.

Lack of Cooperation

Lack of cooperation among community members, stemming from attitudes of individualism, jealousy or distrust, was the most frequently described "attitudinal" hindrance to project success. Development is limited when people refuse to work together for the benefit of the entire community; projects that must be aimed at individual gain are far inferior to those that are able to address both the needs of the individual and the community at large.

Though cooperative efforts can speed the process of agricultural development, extreme caution must be exercised in planning projects that are heavily dependent upon community cooperation. Attempting to instill a "sense of community" where one does not exist may prove to be a formidable task. In some cases the seeds of cooperation planted in one generation require the passage of several generations before they flourish.

> Attitudes that most inhibit the development process in the agricultural sector are individualistic attitudes and lack of trust (B - 2).

> Farmers in Thailand are rather individualistic and there is a lack of rural institutions. People don't trust one another to handle their money. Cooperatives and credit unions are needed and would be very useful, but they are not easy to establish (B - 3).

The greatest limiting factor for us is the strong feeling of jealousy of the local people toward one another (C - 2).

People here are very individualistic. Fighting is the main problem. The best thing we could do here is to start cooperatives, but the people are not yet ready. The shareholder schemes have all failed. Loan schemes are necessary, but difficult (D - 1).

There is a high degree of distrust of one another. This has made our effort toward encouraging the people to save money together difficult (G - 1).

The following have inhibited the achievement of project objectives: lack of trust between neighbors, inhibiting group activites at all but very basic levels (G - 7). . . .

The village people are communal. They do not like to see their neighbors get ahead of them. If this happens, they will sometimes burn the person's house or steal from his bins (T - 2).

In this particular culture, if one goes to a certain village or farmer to help them, all the other villagers or farmers within a village will be jealous, even to the extent sometimes of causing near riots. The agricultural worker is accused of favoritism and/or loving some more than others and all kind of things. If one does something for another, he is automatically expected to do the same for everyone (a communal tradition from a background of communal or village living where everyone shares everything in common with their village brothers but nothing with anyone outside the village). There is not enough time or money in this world to give everyone equal treatment, but if this is not done, enemies can be made (T - 2).

The following factors in the local community tend to inhibit the development process: there is little sense of community; it is difficult to achieve cooperation beyond the extended family; there is no sense of obligation to repay loans; community members have a general outlook that is very opportunistic at the expense of their neighbors; efforts are often made to acquire

> self-respect by in some way 'pushing down' their neighbors (W - 1). . . .
>
> At first Christians did not wish me to work in Muslim villages and tried to sabotage my efforts in every way possible. They have now, however, after eight years gained prestige because Muslims in large numbers are coming to get advice or services from their village (W - 1).
>
> Since there is virtually no trust or cooperation beyond the immediate family, it has been necessary to direct all programs toward personal or family gain--private enterprise. Community betterment programs (roads, schools, and canal systems) are extremely difficult to organize and carry out for this reason (W - 1).
>
> The other [obstacle] is the inability of the Miskito Indians to trust each other and work together, especially when money is involved (Y - 6).
>
> I suppose plain selfishness and complacency are the chief attitudinal problems. . . . Mutual trust comes hard to them and, therefore, so does cooperation. Tradition teaches that each man is for himself. Living in a larger' community is new to many of them, and the rules of getting together are not easy to learn at once (BB-10).

Superstition

The casting of hexes or spells on individuals, especially those who appear most likely to benefit from the project, is an extreme display of jealousy and noncooperation described by several survey respondents. Indeed, the practice of witchcraft, voodooism, and sorcery abound in the project descriptions of survey respondents; all such incidents are viewed as detrimental to project success. The prevalence of fetishism, animism, and related

forms of animal and nature worship also impede the process of agricultural development in rural communities throughout the Third World. Project goals must often be revised or even completely changed when religious or cultural taboos interfere with project implementation. One must be extremely sensitive, patient and flexible in communities governed by a massive array of superstitious beliefs.

> Attitudinal factors are important. . . . Too often, for instance, fetishes are thought to be the thing that brings on good crops. To cite an example: In one village our agents were not permitted to take their hoes into the field because 'the hoes of Lusekele have Nkisi (medicine or fetishes) that kill the soil (B - 1).'
>
> Non-Christians are animists and are fearful that new crops, livestock, methods, etc. may anger the spirits and cause disease and poor crops. Therefore, our extension workers find it easier to work among Christians (B - 3).
>
> Religious taboos can also be a hindrance. In a couple of cases, villagers decided against building some irrigation ditches as it would take water from one watershed to another. The fear was that it would offend the spirit of the land and thus cause trouble (B - 5).
>
> In their minds superstition often plays a larger role than agronomic principles (C - 2).
>
> Someone who advances beyond other village members is subjected to sorcery and perhaps having his fields burned. The reason given for this is that anyone who produces more than anybody else must be in league with the devil (C - 2).
>
> The following have inhibited the achievement of project objectives: lack of belief in cause and effect, or belief in spells ('good techniques won't do me any good if my neighbor gets someone to put a spell on me and my efforts') (G - 7).

> The extreme influence of voodoo has a negative effect because of the attitudes of distrust (N - 1). . . .
>
> Our farmers are slighted and are the recipients of various hexes because of their successes (V - 3).
>
> Spiritism has made it impossible to share machinery, animals for traction, etc (AA- 2).
>
> Some of the tribes we work with are afraid of large animals. They have taboos on anything larger than a pregnant woman (BB- 9).

Risk Avoidance

Risk avoidance, though very understandable, is a significant "attitudinal" hindrance to project success commonly encountered in agricultural development efforts. Third World farmers, especially the small subsistence farmers, are very pragmatic individuals; the circumstances under which they live prevent them from developing a speculative spirit that must be exercised in any venture involving risk. The security that comes from what has been tried and proven may be worth more to the farmer than the tremendous increase in output that might be forthcoming by utilizing new technology. Consideration of the risk constraint facing Third World farmers is, therefore, a key to understanding the farmer. What is often described as stubbornness or an unwillingness to change is in many instances a rational response on the farmer's part in light of the risk constraint under which he must operate.

Project success will, therefore, be tremendously enhanced if a special effort is made to demonstrate the effectiveness of the new technologies/techniques to be introduced before pushing local community members to adopt them. The risk constraint also necessitates the introduction of technologies/techniques that will bring about a dramatic increase in yields; a slight to moderate increase in yields will often not be worth the risk involved.

> Many of the people on the local scene are interested only in something that will bring a quick return. Life is too uncertain to bet on the long haul (S - 1).
>
> Tradition can also hold a project back. Care must be taken to discover the 'whys' of the present situation and 'suggest' changes that are in keeping with expected norms. It must be realized that many seemingly negative attitudes are fear of the unknown. Sometimes sharing in the risk bearing on the part of the mission is the most positive step forward that can be taken. But care must be exercised so that the mission is never asked to bear all the risks. This only produces negative results (T - 1). . . .
>
> It is critical to recognize that the small farmer does not always equate maximum development with maximum production. Risk avoidance is often the critical factor. An understanding of how the local culture handles risk and the consequences of 'development' can be very beneficial (T -14).
>
> The people are afraid to change because of the risk to their livelihood (T -25).
>
> You have to take into consideration the beliefs and attitudes of the target group. . . . 'Hand-to-mouth' people are very pragmatic and they will not 'go out on a limb' to try something new very readily (BB- 6).

Paternalism and Dependency

Paternalism on the part of government and private agencies involved in agricultural development efforts has led to the emergence of a "hand-out mentality" among farmers in rural communities throughout the Third World. Misguided "give-away" programs of the past are now taking their toll; "self-help" is difficult to achieve in communities when the people have at one time been the passive recipients of aid. To rid rural communities of an attitude of dependency, outside change facilitators must be willing to endure the frustration of "sitting back and letting them do," even when failure appears to be imminent. From the very beginning local community members must be made to feel that they are responsible for the project; nothing should be done for the people that they themselves can possibly do. Mission personnel must make the training of nationals a priority so that the project does not forever remain a "mission" project that is dependent upon "outsiders" for its existence. The transition from "mission" to "national" control is vitally important and must, therefore, be planned for from the outset of the project.

> Working through the church here has been somewhat of a detriment for me. I think the reason is that the missionaries have been doing much too much for the people. Now they feel that the missionaries have to do it all. In my project the people are reluctant to do anything on their

own because they feel I should be a doing it for them. (Example: They will carry a case of beer back to their village for their own use, but they won't take a few seed because that is my responsibility) (C - 4).

Two attitudes on the part of the local people that inhibit development are: 'I'll be free of poverty if the government gives me aid' (viewing the government as a Santa Claus, which is detrimental and destructive to well-designed self-help type projects); and 'its not mine so I don't care' (having little respect for public goods, which is clearly evident in the number of hand tubewells for pure drinking water in the villages which are defunct or missing for lack of someone replacing a small, inexpensive part) (G - 4).

The most destructive attitude is the 'hand-out' mentality. . . . This is why I think that church and private agencies do a much better job than government agencies. There is more accountability and more efforts at self-help projects rather than gifts. People have to be made to understand that the future is theirs; and with a little help from others they must make it themselves (G - 5).

The history of government paternalism in agricultural development makes self-help projects hard to get started. . . . Government opposition to foreign missions has also been a hindrance (G - 9).

Often there is a paternalistic attitude on the part of the government and mission staff that hinders development efforts. . . . This stifles the participation of the local people (L - 3).

If there's any crop failure, they expect the government to aid them (T -17).

It is a sad fact of life that projects and/or programs tend to become institutionalized and, therefore, the Church and Mission Board doesn't want to 'let go,' particularly if the project still looks good. I feel the outcome of this . . . paternalism will eventually kill a project no matter how good the project was in the beginning. . . . The timing of the 'let go' phase is

> important, but (I emphasize) this should be the goal of any church sponsored agricultural assistance (V - 2).
>
> The dependency attitude of the people developed over the years from government and misguided missionary hand-out programs is one of the main obstacles (Y - 6).

Negative Attitude Toward Farming

In describing "attitudinal" hindrances to project success, several respondents mentioned the negative attitude toward farming that they had encountered particularly among the educated youth. For many young people in Third World countries, education is regarded as an avenue for escape from the land; an education may entitle one to a city job, and a city job is considered far superior to farm work, even if one could live better by remaining on the family farm.

The magnetism of city life for those that have been educated is very strong. The type of education received makes little difference; even those who have been trained in "agricultural" institutions seem reluctant to return to their villages. To perform manual labor is often considered degrading to those with "educated hands." By living among and working alongside the local farmers, missionary personnel, many of whom are highly educated, demonstrate a positive attitude toward farming and rural life.

> By our living and working with our hands among young people, they have at least seen that manual labor does not degrade us (foreign missionaries), but even our village level workers would rather supervise others than work with their own hands (B - 2).

> Students at the project center . . . thought they were too good to go back home and work in their villages (C - 4).

> Attitudes of the local community must certainly be considered. . . . One attitude in Kenya among high school educated youth is that land is not really an asset--farming is low class and unworthy of their educated hands. Therefore, people spend all their efforts trying to get one of the very low paying jobs in Nairobi when they could be earning more if they utilized the land owned by their families. So part of my idea here is to teach and demonstrate the worth of land and the potential earnings of privately held land (I - 1).

> They view education as an escape from physical labor (T -11).

> One hindering attitude is that youth see education as paramount and as a means for getting away from the land (U - 7).

Food Customs and Preferences

In agricultural assistance efforts special attention must be given to the specific food customs and preferences of those in the project area. Lack of consideration of these factors in the initial stage of the project may result in project failure or may, at best, necessitate a change in project goals.

> Food customs, such as sick people and pregnant women should avoid meat and eggs, inhibit the achievement of project objectives (B- 3).

> Women think ducks are 'dirty' animals and thus don't like to eat them. The promotion of ducks has met with little enthusiasm (J - 4).
>
> The achievement of project objectives, which has included rabbit production, has been inhibited by the fact that many Indian people associate consumption of rabbit meat with infertility (T -13).
>
> It may be possible to use rabbits in producing meats. The only problem is the education that will have to take place to get people to eat rabbits here (T -28).
>
> You have to have some idea of what people like!! If you introduce a brown wheat, for instance, it may yield good, but if the people like only white wheat the market for brown wheat will be very small (U - 1). . . .
>
> Because this was a Muslim area, we did not even consider working with pigs, although pigs would have done well (U - 7).
>
> The attitude that 'what was good enough for grandpa is good enough for me,' and the belief that fruits and vegetables are fifth rate foods have inhibited the achievement of project objectives (BB- 7).

Fatalism

Several respondents made reference to an attitude of fatalism pervasive in their project area. This attitude, perhaps more than any other, is a significant deterrent to project success; self-help is difficult to achieve in communities where people believe they have no control over their lives. Fatalism may also contribute to an attitude of living only for today since fate will take care of tommorrow.

> The people have a hunting and gathering mentality, and they seem not to have the capacity of thinking about tomorrow. . . . Bantu languages do not have a true future tense (B - 1).
>
> Fatalistic apathy on the part of local community members has discouraged preventative treatments (disease control and water management) (G - 4).
>
> Despair, inability to see alternatives, lack of hope--these are the attitudes that hinder the project most (J - 7). . . .
>
> Fatalistic attitudes often hold back agricultural development (T - 1).
>
> The rural people, due to increased population, have changed from shifting cultivation to continuous cultivation. The result has been a gradual decline in yields. The attitude of many people is that this is the normal situation and is all that can be expected (T -26).
>
> One area in which our project did not succeed was with a group of people who live only for today. They give or place very little importance on tomorrow (BB- 1). . . .

Prejudice

Prejudice between groups, stemming from differences in religion, nationality, culture, sex and social position, may hinder development efforts in certain localities. To achieve cooperation among people is often, as previously discussed, a difficult task; it is especially difficult when real or perceived differences divide a people into groups that will not intermingle. If all groups are to be involved in the development process, it may be necessary, at least initially, to design projects that focus on each group individually.

> The agents work with women doing the same kind of work they do. With men it is a slow process and a breaking down of cultural barriers against agricultural work for men. They enter easily where women have not trod. If they can earn money, they will do it (B - 1).

> Prejudice between ethnic groups or religious groups sometimes can be an inhibitor of development projects. This prejudice can come from any two groups that are slightly different (B - 5).

> Islam puts women on the bottom line here. Therefore, the men refuse to do such work that has been traditionally ascribed to women (such as hauling water). Men and women won't work together on the same project (or I should say that the men won't work with the women). The projects are, therefore, separated (C - 3).

> The position of women in the community has hindered the achievement of the women's program objectives. . . . Because of the social and political class structure, the elitists have prevented the subordinates' development (G - 4).

> With regard to 'religious' attitudes, the divisions/suspicions between Protestants and Roman Catholics make it difficult to involve everyone (G - 9).

> Negative attitudes toward persons of another nationality or culture may inhibit project success (L - 2).

> The Indian culture is very closed, and the religious influence is strong. There exists a cultural difference between the Indian and the non-Indian. . . . There is a lot of superstitution, and the people are prone to jealousy (P - 1).

Traditions

Third World farmers are often bound by age-old traditions that hinder the process of agricultural

development. Those things that have traditionally afforded farmers prestige and status are often, for instance, the very practice that impoverish them.

> The Masai see vast numbers of cattle as status; therefore, they have huge herds that are damaging the ecosystem (I - 1).
>
> Overgrazing and erosion is perhaps the number one problem of agriculture in Lesotho. The village people are generally aware of this but are unwilling to reduce the number of their livestock (cattle, sheep, and goats). Particularly, the cows play an important role in the 'bride price'. . . . The government is trying to reduce the number of livestock, but it appears to be a long, slow process of education. It appears that the number of cows is more important to the people than the quality (J - 1).
>
> The tradition of cattle grazing in open areas is a widespread custom that has inhibited the achievement of project objectives (T -10).
>
> Generally there are few 'cultural inhibitions' to the realization of project objectives. However, there are some practices, such as the 'fiesta,' which may consume considerable available financial resources of a family which might otherwise be used for the purchase of fertilizers, sprayers, etc (W - 6).
>
> Keeping livestock for prestige or decoration rather than for food production has inhibited the achievement of project objectives (X - 1).
>
> The tradition of herding cows, goats, sheep and camels has led to a conflict between pasture/crop lands, thus inhibiting project objectives (Y - 2).
>
> Slash and burn traditions have been very destructive to forests and organic material. Also, resistance to cultivating crops to eliminate weeds has affected production levels (Y - 6).

Addressing Attitudinal Factors

Many respondents stressed the importance of giving adequate consideration to attitudinal factors from the earliest stages of project design. As successful development efforts most often require a team effort, several respondents emphasized the need for examining the attitudes of all individuals involved in a project, not just those of the project "beneficiaries." The following sample of comments are representative of how missionary personnel deal with attitudinal factors in their agricultural assistance efforts. The particular method for addressing attitudinal factors will, of course, vary from project to project according to the particular circumstances involved.

> New things and ideas are always looked upon warily by the wise. The important thing is for those who want to help (i.e., mission/project leaders) to understand the situation of the people, to be sure that what they propose will be of help (not superficial aid), and lastly to persevere in love through communicating, demonstrating and encouraging (A - 3).

> People accept new technology under food-for-work conditions, but when this food stops after a harvest and the people are becoming self-sufficient, they revert to less efficient and less laborious methods. Yields suffer greatly. More teaching/demonstrating is needed (A - 4).

> By our living and working with our hands among young people, they have at least seen that manual labor does not degrade us (foreign missionaries) (B - 2).

Other than a real conversion experience, I see no way to achieve trust, cooperation, discipline, and honesty (B - 2).

To change any inhibiting attitude, one must first get to know just what the attitudes are and where they came from. Once this is understood then a course of action can be set to change it, and this is probably best accomplished by letting those concerned see the results of the change in others. No matter what, though, to change attitudes will take personal relationships with the people, and this means language ability. . . . Until you have learned the language, you can only guess and theorize about the villagers' reactions (B - 5).

The greatest limiting factor for us is the strong feeling of jealousy of the local people toward one another. Someone who advances beyond other village members is subjected to sorcery and perhaps having his fields burned. The reason given for this is that anyone who produces more than anybody else must be in league with the devil. It is an easy way for others to remove personal responsibility and a good excuse for their own laziness. We try to broach this problem by exposing it and also by trying to advance all members of a community (C - 2).

Men and women won't work together on the same project (or I should say that men won't work with the women). The projects are, therefore, separated (C - 3).

Attitudinal and institutional factors must be given heavy consideration in the design and implementation of agricultural projects. I think that all available information should be taken into consideration when planning a project. This is why I feel it is so important for one to know the language and the culture of the people before starting any project (C - 4).

Attitudinal factors should be considered. People here are very individualistic. Fighting is the main problem. The best thing we could do here is to start cooperatives, but the people are not yet ready. The shareholder schemes have all failed. Loan schemes are necessary, but difficult. . . . As I mentioned before, we started just now with

small groups who pay a share of a loan that is given them in seeds or fertilizers or insecticides. They have to pay a membership fee, and the group as a whole is responsible for running things. They can also choose their own members. . . . In this way, we have tried again for more cooperation between local community members (D - 1).

Always be aware of attitudinal factors and recognize which factors will be barriers to the program planned. If necessary the program may have to be redesigned to address these factors. It is important to understand the barriers faced by the target group. This requires contact right from the start (G - 4).

The most destructive attitude is the 'hand-out' mentality. . . . This is why I think that church and private agencies do a much better job than government agencies. There is more accountability and more efforts at self-help projects rather than gifts (G - 5).

The Christian teaching of selfless service in our agricultural projects transformed the attitudes of many in the local community. Now there is hope and direction in life and work (G - 8).

I would say that paternalism, desire to make a name for oneself, political ambition, and simple laziness are factors that I see inhibiting the effectiveness of Mexican institutions in agricultural development efforts. No one in Mexico knows how to reform the vast bureaucracy, but I think one can work with individuals within the bureaucracy. Here the role of our Mexican counterparts is crucial. They have better contacts with civil servants (G - 9).

Attitudes of the local community must certainly be considered. . . . One attitude in Kenya among high school educated youth is that land is not really an asset--farming is low class and unworthy of their educated hands. Therefore, people spend all their efforts trying to get one of the very few low paying jobs in Nairobi when they could be earning more if they utilized the land owned by their families. So part of my idea here is to teach and demonstrate the worth of

land and the potential earnings of privately held land (I - 1).

Overgrazing and erosion is perhaps the number one problem of agriculture in Lesotho. The village people are generally aware of this but are unwilling to reduce the number of their livestock. . . . The government is trying to reduce the number of livestock, but it appears to be a long, slow process of education (J - 1).

In our own work I appeal to the people to consider the land as a gift from God, and we are his stewards in caring for it. When we permit it to erode and wash away, we are violating God's will for us. God created the world, but he put humans in charge of it (Genesis 1: 1-31). I am hoping this approach will appeal to Christians, but I cannot expect non-Christians to accept it. The attitudes of the latter might change if they see that the erosion of land can be successfully controlled (J - 1).

These attitudinal and institutional factors must always be taken into consideration. . . . They aren't often evident until one is in a place for several years. . . . Part of the answer is patiently encouraging and building friendships (J - 3).

Despair, inability to see alternatives, lack of hope--these are the attitudes that hinder the project most. . . . Helping people to believe in themselves and their own potential, by some members of the local community making progress, by assuring that efforts will be repaid by success, by assuring the availability of needed inputs in a total package approach, etc.--these help change attitudes. . . . The Biblical principles of theology of creation, people as God's husbandry workers, God's concern for his people, etc. also help to change attitudes (J - 7).

Both attitudinal and institutional factors should be given important consideration in the planning and carrying out of agricultural projects. . . . Negative attitudes toward persons of another nationality or culture may inhibit project success. For this reason it is of utmost importance for mission personnel to

rightfully gain the confidence and respect of host government officials as well as local community members. This, in large part, is a matter of seeking and sowing goodwill (L - 2).

Often there is a paternalistic attitude on the part of the government and mission staff that hinders development efforts. . . . This stifles the participation of the local people. . . . It is extremely difficult to change the attitudes of the government and mission staff, but it is possible to prepare and train the people so that they are not so dependent on others for their survival (L - 3).

Attitudinal factors should most definitely be considered and studied. By having nationals in on the design and implementation of the agricultural program, these attitudes can be illumined and considered in the project (Q - 5).

One of the attitudinal problems that often inhibits the successful execution of a development project is that of distrust. The community doesn't trust the government and/or the mission. The government doesn't trust the community to be capable of carrying out projects, and sometimes the mission has a rather 'stuck-up' attitude regarding both. It must be recognized that this is a team effort and only when it is will the project move ahead (T - 1).

Tradition can also hold a project back. Care must be taken to discover the 'whys' of the present situation and 'suggest' changes that are in keeping with expected norms. It must be realized that many seemingly negative attitudes are fear of the unknown. Sometimes sharing in the risk bearing on the part of the mission is the most positive step forward that can be taken. But care must be exercised so that the mission is never asked to bear all the risks. This only produces negative results (T - 1). . . .

Both attitudinal and institutional factors should be given extremely heavy consideration, but again it depends on the area in which one is working. . . . In our area people will not do dairy work because they do not want to get up early. We have, therefore, discontinued our dairying enterprise. . . . The village people in our project area are

communal. They do not like to see their neighbors get ahead of them. If this happens, they will sometimes burn the person's house or steal from his bins. Using the headsmen for demonstrations may help to prevent this. . . . Stealing is not looked on as being as bad as it is in the western world. We try to correct this by teaching and by keeping a big dog to guard things. . . . Time means nothing to the local people. We had to adapt to this custom (T - 2).

'Attitudes' is a major problem with doing agricultural work on the village level as opposed to doing it on a central level. In this particular culture, if one goes to a certain village or farmer to help them, all the other villagers or farmers within a village will be jealous, even to the extent sometimes of causing near riots. The agricultural worker is accused of favoritism and/or loving some more than others and all kinds of things. If one does something for another, he is automatically expected to do the same for everyone. There is not enough time or money in the world to give everyone equal treatment, but if this is not done, enemies can be made. The central station is the answer. Everyone has an equal and even chance to visit the demonstration farm and experiment station and everyone feels that it is there for them and in essence is partly theirs, so they take pride in the institution rather than being jealous or afraid that others will receive more on a personal basis than they will (T - 2).

If attitudinal factors are not considered, we miss the whole purpose. . . . It is much easier to work with a people when their attitudes are positive. As people grow spiritually their attitudes begin to change (T - 5).

Attitudinal factors, especially as they result from cultural practices and beliefs, must certainly be given priority consideration. Failure to do so to an extensive degree often limits results in even the best planned and conducted projects. Many of these attitudinal factors lessen in importance with good communication and increased education. It is best to follow, at least in the beginning, well established channels, especially as regards

contacts with government and community officials (T -13).

It is critical to recognize that the small farmer does not always equate maximum development with maximum production. Risk avoidance is often the critical factor. An understanding of how the local culture handles risk and the consequences of 'development' can be very beneficial (T -14).

Changing attitudes is slow, hard work. After fifteen years of educating and training thousands of people at the Mindanao Baptist Rural Life Center, it seems that people are just now beginning to get concerned enough about their agricultural problems to make some changes. . . . I don't expect things to be any easier in Indonesia (T -18).

The rural people, due to increased population, have changed from shifting cultivation to a continuous cultivation. The result has been a gradual decline in yields. The attitude of many people is that this is the normal situation and is all that can be expected. Demonstration of the effects of fertilizer can dramatically change this attitude (T -26).

In general it is not a good idea to work only with individuals. The people are group orientated and tend to resist an individual being advanced if they perceive (rightly or wrongly) that they are being neglected. Visitor days or field days help avoid this perception (T -26).

Other attitudes concerning food preferences are changed very slowly as are attitudes toward conservation, be it soil, trees, or other flora and fauna. This entails a long process of education. It helps to get into the schools and teach the young people, hoping they will have a more open mind to changes as they become adults (T -26).

The attitude of honor and respect one village had toward their chief was used in introducing ox drawn equipment. By giving the chief aid, the whole village was aided (and many learned the value of draft animals) (T -26).

The Orthodox have lots of 'laws' concerning when you can plow, harvest, and haul crops, etc. We did not try to change these 'laws' but to work around them. . . . We observed the local traditions with regard to fast days, religious 'saint days,' et cetera (T -27).

I believe outside 'experts' should use a problem solving approach which puts them in touch with the local people's perceptions of their problems. . . . They should not impose an alien analysis of the problem but work from the basis of the people's perceived and understood reality (T -31).

Because this was a Muslim area, we did not even consider working with pigs, although pigs would have done well (U - 7).

Attitudes need to be developed to support the project from the initial planning of the project. . . . Many hours of pre-project planning and preparation must be done to prepare the people for the undertaking they are to be involved in. All private, church, and government agencies should work together to bring about any necessary change in attitudes (V- 1).

The attitudes of host government officials and members of the local community are, of course, critical to the success of any project. Government officials usually want something done in their own community, and they usually think only in terms of large, costly projects. Community members often resist change, and they usually don't want to see other community members get ahead. . . . In some cases negative attitudes can be changed or diffused through discussion groups. . . . Dialogue is the best method for helping to 'educate' attitudes. However, it may also be necessary to do a demonstration on the farm of a community member. An educational booth at a trade or agricultural fair can be helpful (V - 2).

Being knowledgeable about attitudinal and institutional factors can prevent making many serious mistakes which could destroy the integrity or reputation of those involved in the project (W - 1).

> The local villager is very suspicious of any new thing. Therefore, any innovation must be proven (W - 5).

> In considering the role of attitudinal and institutional factors, the critical issue is bridging strategy. The various key leaders (i.e., faction leaders, gate-keepers, etc.) all have vested interests which are not immediately apparent to the eager expatriate specialists. Therefore, the process helper mentality, together with sufficient time to develop a bridging strategy from problem identification to solution implementation, is absolutely essential to the success of the project. Unfortunately, most projects allow neither the time nor the training in this area of project development (Z - 2).

> Attitudinal and institutional factors are extremely important. . . . How they are dealt with can make or break a project (BB- 5).

> Training will be aimed at making known the ins and outs of obtaining agricultural inputs and raising self-image so the local leaders won't fear dealing with local and outside people who sell inputs or buy produce (BB-10).

Addressing Institutional Factors

The absence or scarcity of critical agricultural institutions was a problem cited by many survey respondents. Though all respondents seemed to be genuinely concerned about the need for critical agricultural institutions, there did, however, appear to be considerable concern also with regard to the degree of involvement missionaries should have in the area of institution building. Several respondents indicated that missionary organizations, due to their limited resources, should leave institution building to international agencies and

government organizations which are more capable of handling such massive undertakings. Others simply stated that missionary personnel should do all that they can, in light of their limitations, to encourage and support community members to utilize already existing institutions and to create, when necessary, institutions that are lacking in the project area. Several respondents stressed the importance of developing appropriate institutions--institutions that can be sustained by the local community--rather than merely importing Western institutions that tend to create a dependency on outside resources. As with attitudinal factors, respondents indicated that institutional factors must be addressed on a project by project basis, giving due consideration to the particular circumstances at hand.

> Institutions come out of cooperation to meet a felt need, but too many people try to set things up to give them prestige or political advantage. The democratic process in India has a too narrow base. People in the villages do not know they have potential for self-government and cooperation as they have too many opportunities to show them how it should be done. Too many insincere motives are at work (B - 2). . . .

> Local existing attitudes and institutions must be considered if a project is to have success. Any village, no matter how 'primitive' in our eyes, will have certain institutions and ways of getting things done. When possible, they should be used instead of introducing new institutions. The next best thing would be to have the people themselves set up their own institution to solve whatever problem it is they want to solve (B - 5).

Here in the Central African Republic, where there is a scarcity of agricultural institutions, we have to look for ways to do some of the same things in another way (C - 4).

'Western' type institutions are rarely successful here. Once western personnel leave they tend to become extremely inefficient. They often require large sums of money and operate at low levels of productivity. We are not building institutions here (F - 1). . . .

Obviously, any agricultural institutions that are functioning should be utilized. When institutions are totally lacking, a decision as to the best method to address that problem must be made on a case by case basis (I - 1).

In the absence of critical agricultural institutions in the area, a very good help can be the formation of a local committee or group to deal with the community development needs (L - 2).

Where lack of agricultural institutions is a problem, the mission staff and host government will be most effective as they help members of the local community to visualize this need, and then assist them in establishment as needed (T -13).

Most governments establish institutions on a national level. Often it is beyond the scope of the mission program to initiate something of this magnitude. Perhaps as a participant the mission can voice its interest and concerns for critical institutions (T -14).

Most developing countries do not have an adequate infrastructure--roads, storage, transport, marketing, etc.--to carry out proper agricultural projects. Anytime a project is undertaken, infrastructure must be considered. The mission may need to help set up a marketing system, storage, transport, etc., but with the idea of turning it over to nationals as quickly as possible. We need to train local national people when possible to do jobs. The missionary should work himself out of a job as time permits (T -20).

Stay out of the institutional situation as missions. It costs lots and lots to implement and

maintain; it will tie you down and limit your flexibility. . . . Agricultural schools, research stations, etc. are necessary, but in general it is not the place for missions to get involved, except perhaps in the area of teaching. . . . Governments like big projects as it brings in foreign exchange. Leave institution building to the international agencies (T -27). . . .

As far as changing or creating local institutions to promote agricultural development, I believe that while that is important, the greater and almost impossible need is to change the institutions of the World Market Place. Developing countries are dependent and vulnerable in international relations with developed countries. They have little or no bargaining power in the world market and suffer from tied-aid agreements which benefit developed countries. Real development is impossible unless they're allowed a stable foothold in the world market (T -31).

In today's Ethiopia, Missions can do little to establish critical institutions. Political aspects are important, but so too is a consideration of the Mission's resources (trained personnel, finances, et cetera). In general, governments--host or foreign--seek to provide such institutions. Because the need or task is so large, progress tends to be slow, but I personally believe that Missions should not get too involved. Involvement in institution building in the past has weighed down Missions with political, labor, financial, and administrative problems. If possible, Missions should steer clear of such and constantly seek to not lose sight of their 'raison d'etre' of evangelism, building and encouraging the church, et cetera (U -1a).

Institutions or services resembling the institutions can and must be provided for the community if they are nonexistent. It is the provision of these services with the success of the accompaning project which bring about the development of the institutions previously nonexistent (V - 3).

In general, the Philippines has what I would consider to be a good institutional structure in

> agriculture. There is considerable research going on and technology being worked out. There is also a very positive attitude toward agricultural development. Primary inhibitions, I would say, are available credit facilities for small farmers and a shortage of both personnel and travel funds/equipment to really work closely with a large percentage of the farmers (W - 6).
>
> The absence of critical agricultural institutions is a problem I'm still struggling with. It seems that the state and national government should have more input in this than they do. I can only encourage the people to seek ways to overcome these obstacles and create needed institutions in a simple way at their own level of ability (BB-10).

SUMMARY OF DATA

All survey respondents, with the exception of one (1.1%), indicated that the attitudes of local community members toward life and work had been considered in the design and implementation of their mission's agricultural program. Attitudes had been considered to an extensive degree according to fifty-two (58.4%) respondents, to some degree according to thirty-three (37.1%), and to very small degree according to three (3.4%) survey respondents.

When asked whether the attitudes of local community members had changed as a result of the agricultural work of their mission, fourteen (17.3%) respondents reported that attitudes had changed to an extensive degree, forty-three (53.1%) reported that attitudes had changed to some degree, and eleven (13.6%) respondents reported that attitudes had changed to a very small degree. Thirteen (16.0%) survey

respondents indicated that no change in attitudes on the part of local community members had been observed as a result of their mission's agricultural program.

Several questions concerning agricultural institutions and services were included in the survey questionnaire. When asked about farmer access to credit before the onset of their mission's agricultural program, forty-one (53.9%) respondents indicated that farmers had access to credit through local private moneylenders; seventeen (22.4%) indicated that farmers had access to credit through local rural credit cooperatives; and thirty (39.5%) survey respondents indicated that farmers had no access to credit from any local source before the onset of their mission's agricultural program. A few respondents reported the existence of banks (private and/or government) in the local area, but most indicated that farmer access to credit through those institutions had been quite limited.

Forty-one (46.1%) respondents reported that their mission had taken (or planned to take) steps to make credit more easily accessible to members of the local community. Forty-eight (53.9%) respondents indicated that no steps had been (or would be) taken with regard to credit accessibility. The actual creation of a credit institution (such as the establishment of a local credit cooperative or credit union that would lend money at a lower rate of interest than could be obtained locally) was identified by

ten (25.0%) respondents as a step taken by their mission to increase credit accessibility in their project area. Nine (22.5%) respondents indicated that their mission was helping community members to gain entrance into already established credit institutions by paying (or loaning) their entrance fees, and eleven (27.5%) respondents indicated that their mission had been actively encouraging the host government to establish credit institutions in the local area where members of the community could borrow at a reasonable rate of interest. Twenty-five (62.5%) respondents reported the creation of a revolving loan fund as a means of increasing credit accessibility in the local community.

With regard to local farmers and their access to markets for the buying and selling of agricultural output, forty-seven (56.0%) respondents indicated that (prior to the onset of their mission's agricultural program) farmers had access to agricultural markets that served the local area only; thirty-four (40.5%) indicated that farmers had access to agricultural markets connected to a regional market network; and twenty (23.8%) survey respondents indicated that farmers had access to agricultural markets connected to a national market network. Ten (11.9%) respondents reported that no local agricultural market existed in their project area before the onset of their mission's agricultural program.

Forty-two (49.4%) respondents indicated that their mission had taken (or planned to take) steps to increase the ability of local farmers to market their agricultural output. These steps included the development of marketing services (such as the establishment of a local marketing cooperative) according to twenty-two (57.9%) respondents; the development of a transportation network to and from local and regional markets according to twenty-five (65.8%) respondents; and encouraging the host government to establish marketing institutions in the local area according to eight (21.1%) survey respondents. Forty-three (50.6%) respondents indicated that their mission was not taking (and did not plan to take) any steps to increase the ability of local farmers to market their agricultural output.

When asked if their mission was aiding (or planning to aid) local community members in the prevention of post-harvest crop loss, fifty-nine (64.8%) answered in the affirmative, sixteen (17.6%) answered "no," and sixteen (17.6%) respondents indicated that post-harvest crop loss was not a problem. Measures being taken in the prevention of post-harvest crop loss include the building of new storage facilities in thirty-one (66.0%) agricultural programs; the provision of insecticides to prevent the destruction of stored crops in thirty (63.8%) agricultural programs; the repairing of existing storage facilities in

ten (21.3%) agricultural programs; and the provision of post-harvest machinery in eight (17.0%) agricultural programs. Several survey respondents indicated that local farmers were being specifically trained in the prevention of post-harvest crop loss as a part of their mission's agricultural program.

ANALYSIS OF DATA

A significant portion of the literature with respect to small farmer development deals with the problems that arise when attitudinal and institutional factors are not given due consideration in programs of agricultural assistance. The inappropriateness of introducing Green Revolution-type technologies into areas that lack the complementary institutional framework necessary to make them a success has, for instance, been a highly discussed topic in the literature. To the small farmer who does not have access to an adequate supply of water, who is faced with an inadequate and/or untimely supply of agricultural inputs, and who has limited and/or no access to credit institutions, extension services and marketing facilities, the risks associated with adopting a technological innovation are exceedingly high. Though constrained by limited financial resources, mission agencies have not failed to address the problems of small farmer development that stem from poor delivery systems and inadequate access

to vital agricultural institutions. Indeed (as described previously in Chapter IV), a significant portion of the agricultural assistance efforts overseas of United States-based religious agencies is devoted to creating an institutional framework within which the small farmer will be better able to progress along the road to development.

The scarcity or absence of vital agricultural institutions is, without a doubt, a problem that plagues efforts at small farmer development. No less of a problem, however, are the multitude of attitudinal hindrances to project success that are common to many Third World countries. A lack of cooperation among farmers, caused by attitudes of mistrust and suspiciousness or, perhaps, the feeling that an individual progresses only at the expense of his neighbor, is one of the most frequently cited attitudinal hindrances to project success. The "fatalistic orientation" of the small farmer, which is often correlated with a lack of aspiration for a better life, is also discussed in the literature as a significant obstacle to small farmer development. The farmer's distrust of "outsiders" and fear of disturbing his present farming system are other attitudinal factors that must be dealt with in programs of agricultural assistance. The small farmers' attitude of risk avoiodance, which stems from and at the same time contributes to other attitudinal hindrances, is probably, however, the most serious

inhibitor of small farmers development. The interdependence of attitudinal and institutional factors is clearly evident at this point; for farmers are understandably afraid to take the risks associated with technological innovation, for instance, when faced with a scarcity or absence of vital agricultural institutions.

The list of attitudes on the part of the farmer that act as inhibitors in the development process is indeed long. Of no less significance in preventing small farmer development, however, are the attitudes of the other dramatis personae in the agricultural drama. According to the literature, for instance, the government extension agents in many Third World countries are not only lacking in concern for the plight of the small farmers but may actually take advantage of them (by acting as moneylenders, for instance) in order to better their own position. Credit agents described in the literature, to name but one other "outsider" group involved in the development process, are often condescending toward the small farmer. As they are usually well educated individuals aspiring toward more advanced positions in the vast bureaucracy, credit agents abhor the thought of having to spend time with "poor, ignorant farmers," especially when it means having to leave their urban offices to meet with the farmers in their own setting. They, like the government extensionists, have their own lives to think about and are, consequently,

little concerned about the small farmer and the role that they could play in helping to bring about small farmer development.

Missionaries have been critized for a variety of reasons, but rarely have they been critized for a lack of concern or an unwillingness to involve themselves in the lives of others. Their willingness to learn another language and to live in areas which usually lack the amenities they are accustomed to clearly indicates their dedication and unselfish desire to put the needs of others above their own. Furthermore, because agricultural missionaries stay in the countries to which they have been appointed on a long-term basis and actually reside in the rural communities rather than commuting from distant urban areas, they are better able than are the typical government extensionist or "visiting" expert to identify attitudes within the local community that might hinder project success.

Recognizing attitudinal hindrances and understanding why they exist is, no doubt, a difficult and very time consuming task; it cannot be adequately accomplished in a matter of days, but will normally take months or even years. In efforts to speed the process of agricultural development, this very important first step in dealing with attitudinal hindrances is, of course, often bypassed; unfortunately, the years "saved" are often "lost" during

project implementation. Failure to adequately consider attitudinal factors in the predesign stage of an agricultural project may result in a project design that is highly inappropriate for the project area; the subsequent need for revising or completely changing project objectives causes major setbacks in the process of project implementation and may ultimately lead to a complete abandonment of the project. Though not immune to the "pressure to produce," the long-term agricultural missionary who knows he will be in the project area for a significant length of time may be less apt than most "external change agents" to bypass in the interest of time a careful analysis of attitudinal factors. Also, attitudinal hindrances that might not be readily apparent to the casual observer are often made manifest to the agricultural missionary who becomes a part of the local community and is able to communicate with community members effectively after having gained increased competency in the local language.

Ironically, many of the "negative" attitudes among project participants develop in direst response to attitudes exhibited by staff personnel. The hand-out mentality which has developed among many farmers throughout the Third World may, for instance, be due to a failure on the part of project personnel to effectively design and implement projects aimed at promoting the self-help

situation. An attitude of "wanting to see results now" has often led staff personnel to do things for the people that they themselves could and should have been doing. An unwillingness on the part of some staff personnel to live among, and work alongside, farmers may have contributed to the negative attitude toward farming that has come to characterize the educated youth in many Third World countries.

Agricultural missionaries, unlike many others involved in developmental assistance, stand little chance of being accused of contributing to a negative attitude toward farming; their willingness to live in isolated rural communities and to talk and work with farmers in their fields is evidence that they have no contempt for "dirtying their hands." The paternalism typically associated with the efforts of missionaries striving to assist those in need has, as previously noted, been greatly reduced in recent years as increased emphasis has been placed on training nationals to be able to take over in every phase of the mission's program within a specified period of time. Consequently, the dependency which results from paternalism has become less pronounced in the overseas endeavors of mission agencies.

The cultural, as well as language, competency gained by the agricultural missionary who normally remains in a single rural community for several years allows for a

greater degree of sensitivity concerning what will and what will not be accepted in the local community with respect to changes in technology, organizational structure, patterns of work, and so forth. Avoiding those things that will be found objectionable in the local community is often the best way to deal with attitudinal hindrances; being able to detect the "objectionable" is, of course, a prerequisite to such an approach. Missionaries who normally minister in a wholistic way, are often able to use spiritual principles in their developmental endeavors; in some communities, for instance, the teaching of the Biblical mandate to care for God's creation reinforces the lessons taught with respect to the conservation of natural resources. In areas where witchcraft, voodooism, fetishism and animism are prevalent, the agricultural missionary's emphasis on a transformed heart as the key to a transformed people becomes even greater; for in such areas, the road to development seems paved with insurmountable obstacles due to the presence of superstitions and belief systems that are so inimical to improvement in the agricultural sector.

Agricultural missionaries, though naturally more apt than the typical government extensionist to utilize spiritual principles in illustrating basic development principles, are well aware of the advantages to be gained from utilizing the technique of on-farm demonstration, long considered <u>the</u> most effective method for convincing farmers

to adopt new agricultural technologies and practices. Though communication is certainly important and is heavily stressed in the mission effort overseas of United States-based religious agencies, the agricultural missionary knows all to well that proof of the benefits possible with the adoption of a new technology/technique will go further than mere words in helping a farmer to overcome his natural attitude of risk avoidance. On-farm demonstration may also open the eyes of farmers plagued by a fatalistic outlook on life; for seeing the success of a neighbor can create hope in the heart of a farmer who has allowed himself only to feel despair. The creation of hope in the hearts of those who have only known despair is certainly welcomed by the agricultural missionary who is involved in a wholistic ministry.

CHAPTER IX

ROLE OF TECHNOLOGY

DESCRIPTION

In the agricultural projects of United States-based religious agencies, various methods are utilized to convey to local farmers new and improved farming techniques and/or better farm management practices.* Mission personnel may, for instance, go out into the community and train farmers on an individual basis, and/or they may train local farmers on a group basis by providing regular classes and periodically conducting special agricultural seminars or conferences. Though training farmers on an individual and/or group basis helps to convey to local farmers new and improved farming techniques and better farm management practices, the most effective method utilized by agricultural missionaries, is usually that of demonstration--setting up model plots on mission land or, better yet, encouraging farmers to set up model plots on their own land in order to "demonstrate" the difference in productivity that can result from the use of new and improved farming techniques and better farm management practices. Demonstration is particularly effective in areas where a

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*The summary description that follows is based upon responses to survey and interview questions.

great deal of resistance toward adopting innovations is encountered. Farmers often overcome their resistance only when they are convinced through demonstration of the effectiveness of new techniques and improved agricultural practices.

The degree of local community involvement in choosing and applying technology varies tremendously from project to project. Project personnel, however, usually give considerable attention to attitudinal and institutional factors in choosing and applying technology throughout the process of project design and implementation.

In approximately one-half of the projects, technolgies developed in the United States are transferred into the project area. In the vast majority of the projects, no problems of significance are encountered in the process of technology transfer. When difficulties are experienced, they usually stem from local attitudinal and cultural factors that inhibit the successful adoption of the technologies transferred from abroad. In some projects, however, technology transfer is beset with difficulties that must be attributed to biological/technical factors, such as the lack of resistance of introduced breeds of animals to certain diseases and the problems associated with obtaining inputs from outside markets. On occasion, a "technological package" imported from abroad is found to be unaffordable in the project area.

Though many of the agricultural projects utilize technologies developed in the United States and other developed countries, most rely as heavily as possible on technologies that can be produced, operated and maintained with locally available resources. The complexity of the technology introduced varies, of course, from project to project; in most cases, however, heavy emphasis is placed on introducing technology that is simple enough for the local people to handle without extensive training and expense. Most of the agricultural projects conducted overseas by United States-based missionary-sending agencies are labor intensive as labor resources are normally far more abundant than capital resources.

The availability in the local area of agricultural inputs--seeds, fertilizers, pesticides, and small farming implements--varies tremendously from project to project. In approximately one-third of the projects, agricultural inputs are readily available in local markets; in the remaining two-thirds, however, agricultural inputs are either in limited supply or are totally unavailable locally. Due to the limited access to agricultural inputs that exists in so many of the project areas, it often becomes the responsibility of the mission to secure inputs from markets outside of the local area. Though they can usually be obtained from regional markets within the

country, it is sometimes necessary to import agricultural inputs from other countries.

In those projects where access to agricultural inputs has been a problem, mission personnel are taking steps to ensure the availability of inputs even after mission support has been terminated or largely reduced. Aiding local farmers in locating already existing channels for obtaining agricultural inputs and educating them in how to deal with these sources of inputs is a major task of the agricultural missionary. In several project areas, agricultural supply stores or service centers are being established to provide for continued input availability, and nationals are being trained to gradually take over the operation of these establishments. In some projects, local committees are being formed to take over the function of securing agricultural inputs, while in others arrangements are being made with local commercial businesses and/or government agencies to provide the inputs currently being obtained by project personnel.

In roughly one-half of the projects, mission personnel are responsible for obtaining the agricultural inputs for their mission's agricultural program. In the remainder of the projects, the responsibility is either shared with local farmers or, to a lesser extent, is borne completely by the farmer. Though most of the responsibility of obtaining inputs lies with the mission personnel during the

early stages of project implementation, the transfer of responsibility into the hands of the local farmer is an actively pursued goal. As long as there is a steady progression from mission- to farmer-control during the process of project implementation, there is little need for concern about an initial period of total mission-control with regard to the provision of agricultural inputs.

In roughly two-thirds to three-fourths of the agricultural projects, the local farmer is required to pay the total purchase price of agricultural inputs. In the remainder of the projects, the farmer either pays a portion of the purchase price or, to a far lesser extent, is provided with inputs free of charge. In projects where it is deemed necessary to provide inputs free of charge or at a reduced price, the goal is to steadily progress to the point at which the farmer will be required to pay the full purchase price.

RESPONDENTS' COMMENTS

Survey respondents were asked to comment on various issues involved in the "Role of Technology." The comments made by the survey respondents are catorized under the following headings: Appropriate Technology; Introducing Technology "Step-by-Step"; Capital Versus Labor Intensity; Demonstration; and Training and Extension.

Appropriate Technology

In discussing the role of technology in agricultural assistance efforts, much of the focus was on the process of choosing and applying appropriate technology. According to survey respondents, technology that is appropriate is technology that will continue to be used by project participants after the "project" has been terminated and the outside change facilitators are no longer in the project area. The third stage of an agricultural project, project sustainability, must be given precedence over the second stage, project implementation, if the choice of technology is to be truly appropriate. Any technology that becomes impractical or unacceptable in the eyes of local community members once the "project" has been terminated is not appropriate; the application of such technology during the process of project implementation may not only reduce the benefits of the project, but may actually be more detrimental than beneficial to project participants in the long-run.

In light of the emphasis on project sustainability, what are the factors that contribute to the appropriateness of technology? Several interrelated factors exist. First, the technology must be affordable to the project participants. It would not be appropriate to introduce any innovation that requires the farmer to incur a debt that

would jeopardize his livelihood in the event of crop failure. If the cost of acquiring and utilizing the technology requires a significant degree of subsidization during the process of project implementation, the technology may not be appropriate. In the case of subsistence farmers, much attention must be given to a comparison of input prices and the expected gain in output for consumption. For those living above the margin of subsistence, input prices must be weighted against output prices since the farmer will be seeking to add to his income by selling his surplus in the market. If the expected gains from utilizing the technology do not far exceed the cost involved, adoption of the technology cannot be justified.

In addition to being affordable the technology must utilize, to the fullest extent possible, locally available resources. The creation of any dependency on "outside" inputs must be avoided at all costs. Many projects, to be sure, have witnessed tremendous success in the process of project implementation because of relatively easy access to "outside" resources through mission-related channels; the majority of those projects have, however, failed in the sustainability stage when access to "outside" resources upon which the projects depended was greatly reduced or completely cut off. Long-run project goals must take precedence over short-run project goals. "Outside"

resources should be introduced in the project area only if definite steps are being taken to ensure their continued availability after the termination of the project.

Besides being affordable and utilizing locally available resources, appropriate technology can be characterized as technology that is simple enough to be understood and effectively used by project participants. In most cases very complex technology will stand little chance of being adopted by farmers, and even if adopted, the chances of it being used effectively will be small. Appropriate technology must be something that can be easily learned and handled by the project participants.

In considering the importance of project sustainability, respondents emphasized that the level of technology be carefully matched to the ability of local community members to repair and maintain it. Introducing technology that requires expatriate skills for servicing and/or is dependent upon spare parts that are not available locally is highly inappropriate and a tremendous waste of resources.

Appropriate technology is technology that has been tailored to the particular situation in which it is being applied. Social, cultural, religious, psycological, political, economic and ecological, as well as biological, factors must be considered when deciding upon the type of technology to be utilized. The technology must be

appropriate for the community involved; it must be right for them. The local community must, therefore, be involved in the process of choosing and applying the appropriate technology. Furthermore, appropriate technology does not necessarily mean adapted "western" technology; indigenous technology which may, in fact, already be in use by the more progressive farmers in the project area could possibly be the best technology for that time and place.

> Technology can be utilized to assist Third World farmers. It must be understood by those who introduce it, and they must also understand the local culture. It must be technology that can be kept in repair locally and that the local people are willing to invest their own resources in after they understand its application (B - 3).
>
> As illustrated by the many rusted tractor bodies scattered throughout the world, technology must be appropriate for the situation. The test to see if it was truly appropriate is whether or not the people still use it after those promoting it leave. Choosing something appropriate, however, may not be that easy. . . . Perhaps the best place to look is among the people you work with. There may be some already producing much more than the rest, who may have discovered a few things that could do many others some good. The next best place to look would be to cultures similar to the one we work with in similar climatic areas (B - 5).
>
> What technology is appropriate? The infrastructure (spare parts, etc.) does not exist for United States-style technology. Bring technology that the people can make and maintain here with local materials and resources! . . . Technology should be limited to the resources available locally--animal and people power. Pumps and diesel fuel are just quick fixes (C - 3). . . .

Appropriate technology is technology that minimizes dependence on outside inputs/skills but maximizes local resources/skills (G - 4).

The only appropriate technology to be introduced is that which can be continued using local skills and infrastructure. In some cases it may be necessary to teach the skills and set up the infrastructure, but it should never be something that cannot be continued by nationals. . . . We have avoided introducing technology (in most cases) that would involve large group efforts to manage and a degree of technical skill not available locally. The history of group process in Haiti is depressing (G - 7).

Technology must be appropriate. It must minimize cash input, maximize training, and be identified as suitable by farmers with little or no training; it must not be dependent on outside experts for maintenance or repair, and it must be locally affordable. . . . The 'cost' of technology must be evaluated as much as possible. Will the technology displace labor? How much maintenance will the technology require? Will the technology be transferable to adjacent communities (G - 8)?

When choosing technology you should choose things that a farmer can 'handle.' Start where he is at and introduce changes from there. Technology should be limited to things that are available through already existing channels and can be serviced and maintained through existing channels (I - 1).

I believe that the only technology that is appropriate is that which can be obtained or made locally and can be maintained locally. If the local people are not able to maintain some piece of equipment, there is no value in introducing it (J - 1).

The old saying 'give a man a fish and he'll eat for a day, but give him a pole and he'll survive for a lifetime' sounds nice, but if he knows more about nets than poles you've not helped him much by providing a pole. He'll probably knock down mangos with it instead of going fishing (J - 3).

To be 'appropriate,' technology must not control humans like it does in the United States. It must be labor intensive, utilize local materials, be understandable by the local people who will use/benefit from it, be repairable/maintainable locally, be ecologically sound, and contribute to self-sufficiency (not depending on outside sources for parts, fuel, etc.) (J - 7).

Appropriate technology is a must!! One must work with what is available and improve on it (N - 1).

The introduction of new methods is very slow. Before introducing them make sure that it will work for them considering local conditions (P - 1).

A technology is only appropriate when it is available, economical, useable, and something that the people know how to maintain. When one introduces new technologies, care must be taken to meet these requirements lest at some point it becomes necessary to abort the project because of an impasse (T - 1).

I think it is foolish to introduce a technology that can't be maintained or produced or financed locally. . . . If it cannot continue without outside help, it is not appropriate (T - 7).

In very poor countries, appropriate technology is a must. By this I mean applying ideas that can be matched or reproduced by those you work with--ideas that can even be carried on if you're not there. . . . Show them how to utilize local materials (T -10).

Sensitivity and patience must be exercised by the mission staff in the matter of choosing and applying appropriate technology (T -13).

The choice of technology is dependent upon many factors including the local culture, resources and attitudes. In most cases it is labor intensive, dependent upon local resources. . . . In most cases it is highly location specific. Furthermore, it recognizes the complex interdependencies that are at work in the community. Farming Systems Research groups them into the technical and human elements (T -14).

It is my contention that it is more important for the man who works one acre or one-half acre, or who for whatever reason cannot expand the size of his planting, to obtain a high yield per acre than for the man who can expand his area indefinitely. Therefore, the role of technology in agricultural assistance is uppermost. It is taking the principles that produce top economic yields in the United States and adapting those to the situation in Serenje to achieve the top yield here. You can't do that in three to five years. It is a continuing process of conducting trials, taking your findings to the people, getting feedback, identifying problems, solving problems, refining techniques, adjusting for changing prices, etc. . . . You have to know the people and where they are and endeavor to move them in the desired direction--the direction that they perceive they want to go (T -16). . . .

The high technology of American agriculture has, I believe, a definite place in Third World nations. That place, however, is at this point almost totally limited to large commercial operations and government projects. Such technology is vastly inappropriate for the average farmer. Even a simple hand tractor is impractical for most upland farmers. The cost of gasoline, oil, and maintenance alone for one month would exceed the annual income of some upland farmers. . . . Every effort should be made to use technology that in itself encourages the local people to try it. It must be simple, practical and affordable; otherwise, the attitude will be: I cannot do this because I am not a rich, educated American. . . . In our agricultural program only local hand tools are used. . . . This is done to encourage the farmers by showing them that the new techniques can be done with the tools they already have (T -18).

Technology is fine as long as it is adapted to fit each local situation. . . . Appropriate technology will promote self-help (T -21).

Appropriate technology is very important. They must be able to take what they have or can get locally to make improvements and changes (T -23).

In choosing and applying appropriate technology, one should ask: Can the farmer learn it easily? Can the farmer afford to operate and maintain the technology? Can one farmer teach the technology to other farmers (T -25)?

The local community must be involved as much as possible in choosing and applying appropriate technology. . . . Local attitudes must always be considered (T -25).

Technology for the rural farmer must be tailored to fit his needs and ability to assimilate and adopt it. . . . Most small farmers have very little capital but are willing to work very hard. All development projects aimed at benefiting the small farmer should aim at very low financial involvement on the part of the farmer. . . . The mission staff helps identify and clarify the real problems and helps find a solution either through experimentation or researching previous work. Once a tentative solution is found a pilot project is tried, preferably without risking too much of the local farmers' resources (T -26).

The introduction of hybrid corn required farmers to buy seed every year instead of saving seed, and it required more capital to purchase fertilizer inputs and to purchase insecticides to protect grain from weevils and stored grain pests while waiting for markets to open. Also, hybrid corn is softer and doesn't 'pound' into the fine flour that the people prefer to eat. . . . Almost every technology transfer entails some similar chain of events that must be considered and adapted (T -26). . . .

What should be done in one area and what in another will vary, of course. The problem in most Third World countries is not the need to get something done faster or to do more of it (which usually rquires machinery). There is usually plenty of labor, but one needs to study the full agricultural cycle and determine if there is a critical period of labor shortage; it may not be plowing, but weeding, and if animal traction is introduced it may provoke the problem rather than help (T -27).

We adapted United States knowledge to the local situation. I had had experience in Tanzania

before Ethiopia, and we learned as we went along to make changes from even one part of the district to the other. Flexibility is the key, not so much the technology (T -27).

In choosing and applying appropriate technology, cost, availability of materials locally, replacement or maintainability, and simplicity (i.e., Is it able to be used and understood by many people within the community?) must be considered. . . . When large financial inputs are poured into a project, the people often feel that they cannot do what they see being done in the project because they don't have money (U -1a).

Generally speaking, labor intensive projects are still most appropriate for developing countries. Existing labor requirements and demands, however, must be considered. If a new technology adds to, rather than reduces, the labor requirement, it may not be fully accepted. For example, even if a new spring is capped a two hours walk away from x's house, x may still prefer to collect dirty water from the ditch that passes by her house. The water (new technology) is better, but the time and energy factor is also important to an overburdened housewife with no labor-saving devices or helpers in her home (U -1a).

It must be a technology that the people approve of. . . . If they don't, then attitudes and cultural practices may have to change before the technology can be utilized (V - 1).

Technology is useful only if it is appropriate. . . . Is the initial cost within the means of the farmer? Is credit available? Does the technology have the potential of increasing the farmer's income above the costs incurred in adopting the technology? . . . Both economic and social factors should be assessed in planning for new technology (V - 2).

The choice of technology should depend on the existing cultural infrastructure and should build on this infrastructure as a base. Attitudes and institutions, of a necessity, need to be considered (V - 3).

Technology as the western world knows it plays a pretty minor role in development at this level.

Its use must be considered against the large force of unskilled and illiterate laborers available; the probability of being able to get a reasonably steady supply of fuel and replacement parts; the probability that local individuals can use the equipment with reasonable safety for themselves, others about them and the equipment itself; and that local mechanics will be able to maintain the equipment. The cost of the equipment, both in actual expenditure and in foreign exchange, is significant and must be considered carefully against the total resources a family has to meet all needs--production and consumption. On the other hand, when (for example) a tractor powered thresher saves a year's crop by making it possible to get it undercover before rains begin, then it is invaluable (W - 1).

It is still difficult in Malawi to get certain areas of the country to use animals for plowing. Two of the reasons are: 1) at an average annual income of $180, the animal cannot be bought; and 2) why feed an animal for six months (during the dry season) when you have a wife and six to twelve children that can aid in hoeing and planting (W - 5)?

I feel a primary criterion in the appropriateness or inappropriateness of a technology is will it, over time, be of benefit to the small farmers or will it benefit only the larger farmers and/or be a negative factor for small farmers (W - 6).

It is very important for the local farmer's self-sufficiency to be able to master his tools and not be dependent on outside technical assistance. He might be able to use a tractor (considered as sophisticated technology here) if he is bright, but he will be subjected to it and will always depend on other people to repair it and above all on outside spare parts to come. . . . So simple technologies (using local resources) that can be repaired by local people at a low cost are best for agricultural development (Y - 1).

Perhaps a good criteria of appropriate technology is not so much whether participants are comfortable with it, but more that it doesn't make them so uncomfortable that they are hardly

willing to try it. Usually they need fast results for reinforcement (Y - 2).

Many times appropriate technologies are already practiced by progressive members of a given society and need only to be found and promoted. Technologies from another geographic area of the same country are the next best alternative. United States or European technologies are usually expensive, unsuitable ideas or gadgets (Y - 6).

The level of technology needed should draw more from anthropological considerations and less from technological inputs. Normally assumptions are made by the expatriate based on an insufficient understanding of the various resistant factors and religious beliefs (i.e., cultural forms and symbols) of the client group. Any expatriate change agent can address the technological questions in a very short period of time, but the failure to properly consider change factors, bridging strategies, and worldview components of the target group usually means failure, or limited success at best (Z - 2).

Technology must be appropriate to the problem being addressed; to the availability of accessible materials; to the local ability to operate, maintain, and repair it; to its cost; and to its affect on nutrition, etc. . . . Usually this means very labor intensive technology (AA- 1).

'Appropriate' technology is entirely up to the local people themselves. They must decide if it is appropriate for them. Sometimes, after a while, they realize that what they wanted at first, such as a big chain saw to cut logs, wasn't as easy to maintain as they thought, and the old axe or a big crosscut saw do just as well (BB-10).

Introducing Technology "Step-by-Step"

According to several survey respondents, extreme caution should be exercised when introducing innovations;

if each innovation is to be thoroughly understood and its benefits clearly observed, new technology and techniques must be introduced very slowly, one step at a time. Outside change facilitators must, therefore, be patient since project success may require a gradual introduction of technical change. Additionally, farmer adoption may be enhanced if change is not introduced too rapidly and if the innovations are based upon what is already being practiced in the project area.

> You don't build a house by starting with the roof tresses. You must begin where the people are and don't innovate too much at once. If you introduce too many changes at once, the value of each change cannot be seen and it may be too abrupt for a villager. You cannot change the habits of centuries overnight. . . . When we started the agricultural program, we started with hoes, machetes, etc. Later, maybe in ten years, we will begin the next step (B - 1).

> Technology must be geared to the local situation--'appropriate' to use an overused and abused term. In our situation here where agriculture is completely traditional, the introduction of any change (whether technological or not) must be made very slowly--one change at a time. Our promotion of row planting, weeding, and use of fertilizer may be too much too fast (F - 1).

> Appropriate technology is a key factor. . . . Many small steps (identify the insect or disease problem; observe the damage and loss caused by it; implement crop rotations and other cultural practices; and finally, try pesticides with a few interested farmers) are better than one giant leap (S - 3).

> The awareness among the people in general of the need to maintain equipment is very limited. The simplest technology that will produce limited results seems to be the best course at the

present. The gradual emergence of an individual here and there who is motivated to move ahead with more advanced agricultural technology will make a difference in the years ahead. This will take many years but does offer the best hope as I see it (T - 9).

Don't expect to transfer American technology overnight. . . . There is the tendency to expect to immediately jump into the modern, sophisticated, mechanized age of technology, but it just can't happen. The know-how, the technological background, and the educational system just can't handle high-tech yet--at least on a large scale. Only those things which can immediately be 'copied' or handled alone in the absence of western technicians and professionals should be introduced. The introduction of technology must be done in stages--on a step-by-step basis (T -17).

Generally speaking, the farmers of Southeast Asia have every potential for an economically and nutritionally sound livelihood, even in the less hilly land. What they lack is the technology to manage their resources. Almost all of the information available to them from the national level is high technology. It's like giving them a computer. It's nice, but what are they going to do with it? It's useless. What they need is locally indigenized, new technology. In other words, incorporate as much of the traditional techniques as possible into the new technology. As they adopt the new technology into their system then they can be introduced to something a step higher. But the procedure has to be a slow one. They simply can't jump from almost stone age to space age overnight (T -18).

Keep the technology as simple (general rule) as possible. The more technology there is, the more problems there will be (the need for spare parts, for trained personnel, for more money, etc.). . . . This is not to say that technology is BAD or should not be used. No! But if one is going the technology route, he had better do his homework' in what all it may mean in the way of resources (money, training, time, infrastructure, etc.). . . . In general, it is best not to make too big a leap from what people are already doing if the project is to be a success (T -27).

> Serious consideration is vital when attempting something new or different. My feelings are to first use the technology that is available with adaptable changes before taking a big step, i.e, a tractor where there hasn't been one. Sometimes we can actually learn from the 'technology' that is already there (T -35).
>
> Generally, however, I would say that technologies are most appropriate' when they can be adopted a 'step at a time' rather than as a 'total package.' This enables farmers to become better able to deal with the implications of the new technology and to test its application and benefit 'little by little (W - 6).'

Capital Versus Labor Intensity

Due to the surplus of labor which tends to characterize Third World countries, most respondents equated appropriate technology with labor intensive technology. Agricultural programs based upon a high degree of capital intensity were generally considered inappropriate by survey respondents not only because of the abundance of labor but also because of the relative scarcity of capital in the countries in which they serve.

The unavailability of capital, especially in very isolated communities, necessitates the importation of any capital to be utilized in agricultural assistance efforts; the importation of capital resources through mission-related channels may, however, create dependencies that will impede project success in the sustainability stage. Furthermore, the cost of purchasing, operating, and

maintaining capital equipment is often exorbitant when compared to the meager income of most subsistence farmers.

Availability and affordability are certainly important considerations in the choice of a labor, rather than capital, intensive technology. Another important consideration is the ability of farmers to understand and to effectively utilize the technology introduced. Self-help entails the utilization of locally available skills; the skills required in the use and maintenance of labor intensive technologies are more likely to exist in most rural communities than are those required for capital intensive technologies.

> Production here must be labor intensive for the moment due to the: a) lack of advanced equipment and capacity of people to keep it in repair (unavailability of parts); b) high cost of fuel; c) fragility of soil; and d) steepness of the terrain (B - 1).
>
> In a country like Nepal, labor intensive methods are more appropriate. In sharecropping situations especially, a higher level of technology generally means there will be less land for sharecropping and, thus, the poorer elements of the community are worse off (C - 1).
>
> Here where 95% of the people are unemployed, it is foolish to use anything but labor intensive methods. To use expensive imports rather than the inexpensive local labor at this time would be impractical. As labor becomes less abundant then other methods can be looked at (C - 4).
>
> Because of the many 'jobless and landless' people, labor intensity is very important in this area (D - 1).
>
> The present system is labor intensive as capital is scarce. To try to introduce a technology

requiring capital and reducing labor would not be appropriate in my opinion (F - 1).

In most low income countries, capital is in short supply. Projects that are capital intensive are, therefore, normally not desirable (G - 1).

Large capital-intensive technologies, though beneficial in employing at least some people, are frequently inappropriate due to dependency created on outside resources/skills/inputs (G - 4).

Certainly in Kenya with such a high unemployment rate, labor intensive technology is the way to go here (I - 1).

To be 'appropriate,' technology must not control humans like it does in the United States. It must be labor intensive (J - 7). . . .

If labor is presently available, the developer is obligated to introduce technologies in the early stages of the program that are labor intensive. As the agricultural sector of the country becomes stronger, capital intensive technology becomes more appropriate because the goal then becomes that of shifting more of the population of the country into gainful employment in industry while continuing to accelerate the agricultural productivity of the country (T - 1).

Our program is about half capital intensive and half labor intensive because we have tried hard to keep it that way. We are in a Third World country that is in the throes of advancing and modernizing. The people need to see and get the feel of advanced science and technology, yet many are at present unable to afford it. Some, after seeing what could be done with mechanization, have sold cattle or got loans, bought tractors and broken the subsistence barrier. Others are slowly improving their lot by using improved seed and methods, extending their labor over longer periods with new crops, etc. The people need to see things in order to know whether they really want to adopt them. Hence, the great use of demonstration. They also need to advance at their own level. . . . Hence, the need for balance between labor and capital (T - 2).

> In the Third World where there is such an extensive labor surplus, projects should be labor intensive (T -17).
>
> Almost always the technology introduced should be labor intensive rather than capital intensive because of the great availability of lowly trained laborers (T -25).
>
> Generally, those projects that utilize labor intensive methods are more likely to be self-sufficient later on (U - 1). . . .
>
> The people we work with don't have capital, so you have to make use of the labor which is available (but often difficult to challenge). It is very easy to get someone to give a million dollars to build a road but very difficult to convince the people to build it out of their own resources and labor. But if they do build it, they will maintain it. If a gift is made to build it, then someone else will have to maintain it (V - 1).
>
> Our agricultural program is labor intensive in an effort to keep presenting techniques that farmers can copy and continue to utilize even if foreign help should be withdrawn (W - 1).
>
> In most cases labor intensive technologies that grow out of community participation and analysis of needs are the most suitable and long lasting (Y - 6).
>
> Technology must be appropriate. . . . Usually this means very labor intensive technology (AA- 1).

Demonstration

Of all the methods that could possibly be utilized in introducing new technologies/techniques into a project area, demonstration is by far the most effective, according to survey respondents. If the farmer can be shown, rather than merely told, of the benefits to be gained by adopting

new technologies/techniques, the chances of adoption are greatly increased.

On-farm demonstration, when properly conducted, is the most effective type of demonstration for encouraging farmer adoption of new agricultural practices. Demonstration of project innovations on the fields of local farmers will prove to community members that they too can benefit by being project participants; though model farm demonstrations may be impressive to a small subsistance farmer, it will more likely be the increased yield on a neighbor's field that will convince the farmer to risk innovation. Before on-farm demonstration is allowed, however, the new technologies/techniques must be thoroughly tested on experimental plots to ensure their workability; careful monitoring of the demonstration plots themselves will be required to ensure their proper utilization. On-farm demonstrations make or break a project. Successful demonstrations are certainly a key to project success; unsuccessful demonstrations are, unfortunately, a major cause of project failure.

Convincing community leaders and the more progressive farmers in the area of project benefits is the first step toward establishing successful on-farm demonstrations. Therefore, the active participation of these two groups, because of their influence on the community and their willingness and ability to risk innovation, respectively,

should be sought in the earliest stages of project design. Once convinced of project success by observing the demonstration fields of the mission and of these key groups, the adoption of project innovations will hopefully spread throughout the community. Besides its usefulness in speeding farmer adoption of new agricultural practices, on-farm demonstration is a most effective means of ensuring local community participation in the process of project implementation. In addition, the monitoring of on-farm demonstrations by mission personnel allows for a continuing dialogue between project staff and participants, an oft cited key to project success.

> Demonstration at a local project extension center, or in a farmer's field where we guaranteed to make up any loss of income, was the method used to encourage the local farmers to adopt the new techniques (B - 3).

> Demonstration plots on the farmers' own land is the most effective method of teaching the farmer to use new and improved farming techniques. If we as outsiders do something new, and it works, the local people say it is possible because we are white. Therefore, it is imperative they do the demonstration fields themselves under our prodding (C - 2).

> We started with demonstration plots on our own land, but that was not enough to convince the local farmers. After demonstrations on their own fields . . . they accepted it much easier (D - 1).

> The most effective method of teaching or training farmers to use new and improved techniques and/or better farm management practices has been on-farm demonstration. . . . We train agents to implement new methods/varieties on a portion of their own farm. This convinces the agent and other farmers (F - 1).

There will always be at least one farmer who is willing to risk following the new method taught. We concentrate on making him successful to demonstrate to the others the feasibility of what we are teaching (G - 8).

I think it would almost always be necessary to physically try a new idea before a group of villagers could really say 'this is something we want to practice' or 'this doesn't interest us.' To merely describe it would be insufficient (J - 4).

The most effective method of teaching farmers improved techniques is by the setting up of practical demonstrations either at the mission station or in any given community (L - 2).

Demonstration plots must be set up in places where tribal leaders can conveniently visit. Their young people must be involved in a program of training so as to be able to carry information to their families (S - 1).

Demonstration . . . is important. More than one year of demonstration may be necessary. There is security in the familiar. . . . 'On hands' experience through field days (open house) is also valuable (S - 3).

Most of the people, although living primitively by American standards, are well aware of advances in modern science and technology by means of their radios, agricultural ministries, and education either of relatives or friends who have gone to secondary schools or colleges. The people may be illiterate but they are not ignorant. They welcome any introduction to new technology. I think a lot of problems stem not from new technology but from the way it is introduced to the people or from the attitude of the introducer. For instance, educated government agricultural workers had beeen trying

to get farmers to plant hybrid maize long before I came here without success, telling them how it would improve their production. I told our preachers I didn't know whether it was any better or not but that I would experiment for them to find out. . . . I set up a huge experiment with two hybrids, pearl flint and a commercial nonhybrid. I created a block design with twelve lots of each of the four varieties. Each lot

consisted of four, one hundred meter rows randomized across a field. The lots were labeled according to the type of maize. Each month when pastors came to Bible School, they went to compare the maize growth. Rows were harvested and weighed separately, and the results were analyzed. The hybrids outyielded local maize two to one! For the same land and labor, the yeild

waas double. The pastors took the news back to the villages. Demand for hybrids became so great that it took the government two years to catch up on supplying hybrid seed in our area. The income of local farmers doubled; little five to eight acre subsistence farms producing forty bags per year began to produce ninety-five to one hundred bags per year (T - 2). . . .

There seem to be two approaches to demonstration: 1) the demonstration or model farm, and 2) demonstrating and testing on local farmers' land. Both have benefits and drawbacks. The demonstration farm allows testing before the new ideas are passed on to farmers, making the missionary more confident that what he is suggesting will work. But a farm can consume a lot of time, keeping the missionary from getting out among the people. Demonstrating on local farms allows you to see the people all the time, but you risk losing credibility if your plans fail on the farmers' land. . . . At this time we are discussing plans for combining these two philosophies by having a small plot of land for testing and when testing is complete demonstrating new techniques on land belonging to local farmers (T -12).

Local farmers can be encouraged to adopt new techniques by taking them to visit other farmers who are using the new techniques and allowing them to see on-farm results and to ask a farmer (like themselves) any questions they have (T -18).

New ideas are fine, but they need follow-up and training to be a success. I have found that building a demonstration model in everything I've done was helpful (T -20).

The most effective method of teaching or training farmers to use new and improved farming techniques and/or better farm management practices is to set up demonstration plots in the

local villages and train local farmers to operate the demonstration. . . . Demonstration areas increase the credibility of the mission staff (T -25).

The local people felt you were throwing your seed and fertilizer away if you planted in dry ground. We had a spectacular demonstration refuting this. . . . I have found that farmers copy what succeeds on their neighbors' farms. I try to be that neighbor, keeping technology and methods at a level that is easily copied. . . . Each employee (approximately 10) lives in a local village. We help each to have one acre of improved crops. When we can, we have people visit his garden and he explains what he has done. This gives him prestige and encourages him to continue being an agricultural leader. We repeat this in the district with pastors (T -26).

It is best to demonstrate new methods and techniques first before trying to 'push' them. After some years of demonstration, if effective results are attained, they'll make their way out into the community (U - 1).

Those who had heard the innovation explained and had seen it demonstrated were prepared to take the risk themselves (U - 7).

Experimental plots have been set up in the fields of local farmers. Farmers are encouraged to try traditional methods alongside newer methods in the same field. Farmers who are more progressive are used as models for other late adopters (V - 3).

Farmers here are very conservative and unless there is a proven example, they won't dare commit themselves to changes. Only demonstating the new techniques can convince a local farmer to get involved (Y - 1).

Demontration plots, in my opinion, are the only way that new methods can be introduced. The people themselves have to decide if the technology is of value to them (BB- 6).

By dealing with key men or leaders in the village (since they can influence the rest), local farmers can be encouraged to adopt new techniques (BB-10).

Training and Extension

Since the adoption of new agricultural practices is more likely if introduced by a well known individual in the local community, it is wise to train local farmers to serve as extension agents in the project area. The training, according to several respondents, should be of a practical, rather than a theoretical, nature and should be conducted in the village, preferably on the farmers' own land. Training programs conducted in city institutions rarely provide the farmer with the type of training that will be appropriate in his particular village setting. The farmers who do return home after such training are usually frustrated at every turn because their village conditions are often so dissimilar to the environment in which they received their training; other farmers never return to their villages, choosing instead to remain in the city or to go into rural communities more likely to have the urban amenities that have been incorporated into their agricultural training.

> It is beneficial to select or train extension workers and model farmers at the local level. This hastens the adoption of new technology because of trust (G - 4). . . .
>
> Farmer to farmer exchange of new ideas is even better than technician to farmer communication (G - 8).
>
> These projects have as one goal the training of a few men with practical knowledge. The educational level of the people, the lack of

funds, and the lack of personnel mean that most of the training will be conducted on a one-to-one basis or in small groups (S - 3).

Experiments should be conducted on the farmer's property. This gives the farmer a greater sense of ownership and control of the project and thus more incentive to continue investing. He is also more convinced of the results of the experiments because of his direct participation (T - 1).

There is plenty of good research, but it is poorly applied at the mass production level. There are many good `theory' agriculturists, but few are out there practicing their profession. . . . We are trying to build our long-range agricultural school with teachers that believe in a `hands on' program along with the academic subjects (T - 3). . . .

Most (not all) training centers are not realistic to the real rural situation. What is learned there is many times too advanced for the local farmer without the capital to implement the things he has learned. Also, it takes him away from his real life situation and he sees things he wants but can't have. He may end up leaving his rural life and not wanting to return (T -27).

Training may be provided by personnel `outside' the community, though primary dissemination of technology should be done by people within the community (W - 6).

The training of local farmers on their own land cannot be encouraged too strongly (Y - 6).

Technical high schools are not much help. They do little practical application. . . . The students usually want to go to the city (BB- 1).

When people are taken out of the village to a `school' in a town or city to be trained in an environment where electricity, tools, and all kind of sophisticated equipment is available for their use, they are generally frustrated when they return to the village where none of these things are available. They cannot do what they were trained to do because they do not have the tools and equipment with which they had been

trained. . . . Training needs to be conducted in the village (BB- 3)!

SUMMARY OF DATA

Survey respondents were asked to identify the various methods that had been (or would be) utilized by their mission to convey to local farmers new and improved farming techniques and/or better farm management practices. Fifty-four (65.1%) respondents reported that mission personnel were being sent out to local farms to train farmers on an individual basis. The training of local farmers on a group basis by providing "classes" or "sessions" which meet frequently and/or regularly was reported by forty-six (55.4%) respondents; and the training of local farmers on a group basis by periodically conducting special agricultural seminars or conferences was a method of extension reported by fifty-three (63.9%) survey respondents. Fifty-two (62.6%) respondents indicated that model plots had been set up at the mission station in order to "demonstrate" the difference in productivity that can result from the use of new and improved farming techniques and/or better farm mamagement practices; and fifty-eight (69.9%) respondents indicated that local farmers were being encouraged to set up model plots on their own land in order to "demonstrate" to other farmers the difference in productivity that can result from the use of new and improved farming techniques

and/or better farm management practices. Several respondents added that their mission personnel work alongside government extension agents in the project area as much as possible.

Approximately three-fourths (77.0%) of the survey respondents indicated that demonstration had been the most effective method utilized in their mission's agricultural program to convey to local farmers new and improved farming techniques and/or better farm management practices. Though the majority (66.0%) of these respondents indicated that demonstration was most effective when model plots were set up on the land of local farmers, several respondents indicated that model plots set up at the mission station were more effective in conveying new techniques because of the greater degree of control with respect to properly setting up and carrying out the demonstration.

In response to the question "Have you found local farmers to be resistant to adopting new approaches and/or techniques in their agricultural practices due to an unwillingness to "risk" or jeopardize their current level of subsistence?," twenty-seven (30.7%) respondents reported that local farmers had been resistant to an extensive degree; forty-seven (53.4%), to some degree; and ten (11.4%), to a very small degree. Only four (4.5%) survey respondents indicated that there had been no resistance on the part of local farmers in adopting new approaches and/or

techniques in their agricultural practices. The resistance of local farmers to adopting new approaches and/or techniques was, according to survey respondents, most often overcome by encouraging and "convincing" the farmers through demonstration of the approaches/techniques on model plots.

The degree of local community involvement in choosing and applying technology in the process of project design and implementation was reported to have been extensive by seventeen (22.1%) survey respondents. Some degree of involvement was indicated by thirty-six (46.8%), and a very small degree of involvement was indicated by thirteen (16.9%) respondents. Eleven (14.3%) survey respondents reported that there had been no involvement on the part of local community members in the choosing and applying of technology during the process of project design and implementation.

When asked to what degree "attitudes and institutions" in the local area had been considered in choosing and applying technology in the process of project design and implementation, thirty-two (44.4%) survey respondents reported that attitudes and institutions had been considered to an extensive degree; thirty (41.7%), to some degree; and six (8.3%), to a very small degree. Only four (5.6%) survey respondents indicated that no consideration

of attitudes and institutions was given in choosing and applying technology.

In describing the agricultural program currently being planned or conducted in the area in which they serve, sixty-five (87.8%) survey respondents described their program as labor intensive,* while only three (4.1%) described their program as capital intensive. Six (8.1%) respondents indicated that even though their agricultural programs are moving toward capital intensity, they might currently be classified as primarily labor intensive.

When asked if technologies developed in the United States had been transferred to the project area, forty-five (54.2%) survey respondents answered in the affirmative. Though the majority of these respondents reported that no problems had been encountered in the process of technology transfer, a few did indicate that they had experienced some difficulties in transferring technologies to their project area. The majority of these difficulties appeared to stem from attitudinal and cultural factors, though some could be attributed to biological/technical factors (such as the lack of resistance of introduced breeds of animals to

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*These respondents reported that their overall agricultural programs were labor intensive. A few of the respondents, however, reported that in certain phases of their program (such as clearing highly forested land areas) or in certain sub-projects (a processing plant or a dairying operation, for instance) there was a high degree of capital intensity.

certain diseases and the inability/problems of obtaining inputs from outside markets). Survey respondents emphasized that the greater the degree of complexity associated with the technology, the more problems encountered in the process of technology transfer. A few respondents indicated that the "technological packages" that had been imported from outside the local area were not affordable to members of the local community.

Survey respondents were asked several questions with regard to the agricultural inputs--seeds, fertilizers, pesticides, and small farming implements--to be utilized in developing the "technological packages" for their mission's agricultural program. As to the availability of inputs, seeds were reported to be readily available in local input markets according to twenty-four (30.4%) respondents;* in limited supply locally according to thirty-eight (48.1%); and unavailable locally according to seventeen (21.5%) survey respondents. Fertilizers were reported to be readily available by twenty-four (32.4%) respondents; in limited supply by twenty-nine (39.2%); and unavailable locally by twenty-one (28.4%). Pesticides were reported to be readily available locally according to sixteen (21.3%)

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*Several of the survey respondents who reported the availability of seeds in local input markets noted that some of the improved varieties being introduced in the project area were not locally available

respondents; in limited supply locally according to thirty-one (41.3%); and unavailable locally according to twenty-eight (37.3%) survey respondents. Small farming implements were reported to be readily available in local input markets by thirty (36.6%) respondents; in limited supply locally by thirty-four (41.5%); and unavailable in local markets by eighteen (22.0%) survey respondents.

When asked who was responsible for obtaining the inputs necessary for the project, it was reported that the local farmer was responsible for obtaining seeds in six (8.1%) projects; fertilizers in eleven (18.3%) projects; pesticides in eight (12.5%) projects; and small farming implements in thirteen (18.1%) projects. Mission personnel were responsible for obtaining seeds in thirty-six (48.6%) projects; fertilizers in twenty-eight (46.7%) projects; pesticides in thirty-seven (57.8%) projects; and small farming implements in thirty-seven (51.4%) projects. Local farmers and mission personnel shared the responsibility of obtaining seeds in thirty-two (43.2%) projects; fertilizers in twenty-one (35.0%) projects; pesticides in nineteen (29.7%) projects; and small farming implements in twenty-two (30.6%) projects.*

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*Several respondents emphasized that responsibility for securing inputs necessary for project implementation, though currently assumed by project staff or shared by staff and farmers, would at some point in the process of project implementaation be totally in the hands of farmers.

With regard to the source of the original purchase of inputs, local input markets were the source of purchase of seeds according to ten (13.3%) respondents; of fertilizers according to eleven (17.5%) respondents; of pesticides according to eight (12.7%) respondents; and of small farming implements according to sixteen (22.5%) respondents. Markets outside the local area (but within the country) served as the source of purchase of seeds in twenty-two (29.3%) projects; of fertilizers in twenty-four (38.1%) projects; of pesticides in twenty-one (33.3%) projects; and of small farming implements in twenty-six (36.6%) projects. Markets outside the country were the source of purchase of seeds according to seven (9.3%) respondents; of fertilizers according to fourteen (22.2%); of pesticides according to fourteen (22.2%); and of small farming implements according to nine (12.7%) survey respondents. A combination of local and outside markets served as the original source of purchase of seeds in thirty-six (48.0%) projects; of fertilizers in fourteen (22.2%) projects; of pesticides in twenty (31.7%) projects; and of small farming implements in twenty (28.2%) projects.

Fifty-three (66.3%) survey respondents indicated that there had been major delays in the implementation of their mission's agricultural program. Twenty (37.7%) of these respondents cited problems with the procurement of

agricultural inputs as one of the primary reasons for delay in project implementation.

In reporting on the cost of inputs to the local farmer, seeds were provided free of charge according to seven (10.1%) survey respondents; farmers paid a portion of the purchase price according to eighteen (26.1%); and farmers paid the total purchase price according to forty-four (63.8%) respondents. Fertilizers were provided free of charge in three (5.3%) projects; farmers paid a portion of the purchase price in sixteen (28.1%) projects; and farmers paid the total purchase price in thirty-eight (66.7%) projects. Pesticides were provided free of charge according to three (5.1%) survey respondents; farmers paid a portion of the purchase price according to ten (16.9%); and farmers paid the total purchase price according to forty-six (78.0%) respondents. Small farming implements were provided free of charge in six (8.8%) projects; farmers paid a portion of the purchase price in twelve (17.6%) projects; and farmers paid the total purchase price in fifty (73.5%) projects.*

Fifty (66.7%) survey respondents reported that their mission was taking (or planned to take) steps to help

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*Several respondents emphasized that local farmers, though currently receiving inputs free of charge or paying only a portion of the purchase price, would at some point in the process of project implementation be required to pay the full purchase price for agricultural inputs.

ensure the availability to local farmers of necessary agricultural inputs in the sustainability stage of their mission's agricultural program (i.e., after mission support in terms of personnel and/or funding is terminated or greatly reduced). Aiding local farmers in locating already existing channels for obtaining agricultural inputs and educating them in how to deal with these sources of inputs appeared to be the primary step being taken by agricultural missionaries in ensuring the continued availability of agricultural inputs. Several survey respondents reported that agricultural supply stores or service centers had been established by their mission in the local area in order to provide for continued input availability; as a part of their agricultural program, nationals were being trained to gradually take over the operation of these establishments. Other respondents indicated that local committees were being formed to take over the function of securing agricultural inputs, especially when inputs were available only in distant (capital city) input markets. In some projects arrangements had been made with local commercial businesses and/or government agencies to provide the inputs currently being obtained by project personnel.

Twenty-five (33.3%) survey respondents reported that their mission had no formal plans with regard to future input availability. In most cases these respondents indicated that there had been no problem with local farmers

obtaining inputs in the course of their agricultural program. A few respondents reported that the provision of agricultural inputs was a function of the government over which they had no control.

When asked to what degree their mission had attempted to analyze the effect of its agricultural program (the new technologies introduced, et cetera) on the beneficiaries during project implementation, twenty-one (25.9%) survey respondents reported that the effect had been analyzed to an extensive degree; thirty-five (43.2%), to some degree; and twelve (14.8%), to a very small degree. Thirteen (16.0%) survey respondents indicated that no attempt had been made to analyze the effect of their agricultural program on project beneficiaries.

Though several survey respondents described quite an elaborate system for monitoring the impact of their mission's agricultural program on project beneficiaries (e.g., maintaining extensive production and income records, gathering marketing data, and noting adoption rates and changes in attitudes), the majority of the respondents indicated that project effects had been monitored on an informal basis simply by living and working among the people and observing the impact of the agricultural program on their lives. Requirements with regard to the submission of quarterly/annual reports concerning their agricultural program and progress toward program goals appeared to be a

significant factor affecting the degree of project evaluation conducted by the missionary personnel.

ANALYSIS OF DATA

While a major constraint upon the scope of activities that can be undertaken, the limited financial resources of United States-based religious agencies probably "force" more of a labor intensive technological approach to development than would be taken if the financial constraint were less severe. Once again, then, as in the attainment of local community involvement discussed previously, the limited financial resources of mission agencies can be viewed as somewhat of a "mixed" blessing; for the literature clearly indicates that a labor, rather than a capital, intensive approach is normally more appropriate since most Third World countries have a more abundant supply of labor than of capital. Also, a labor intensive approach tends to correspond more closely to the basic philosophy of most mission agencies which emphasizes "community ownership" of projects through active community involvement in project design and implementation. The introduction of labor-intensive technologies and practices allows community members to become involved in project implementation through a commitment of labor resources--a superior arrangement for creating a sense of "community ownership" than would probably occur with the introduction

of capital intensive technologies and practices requiring a commitment of primarily financial, rather than labor, resources. Since agricultural missionaries are often working alongside the "poorest of the poor" who may not be receiving assistance from the host government or any other group or agency, it is important that they introduce technologies that will not require a substantial commitment of financial resources; labor, rather than capital, intensive technologies are normally introduced because they are more affordable and, therefore, more appropriate.

According to the literature, one of the most effective methods of introducing new and/or improved agricultural technologies and basic farm management practices is through the technique of demonstration on the land of a typical local farmer. Because agricultural missionaries actually live in the communities in which the agricultural programs of their respective mission agencies are conducted, they are probably in a better position to conduct and/or oversee demonstrations at the local community level than are most government extension workers. While a government extensionist or a "visiting" expert on a technical assistance team may be viewed with suspicion, the missionary who becomes a part of the local community is able to be a trusted neighbor on whose fields the increased yields resulting from technological innovation or a change in basic farm management practices can be observed.

Furthermore, by working with local farmers on a daily basis, the agricultural missionary is able to better identify suitable candidates for on-farm demonstrations which can be conducted throughout the community. By making sure the farmers chosen for on-farm demonstrations are carefully instructed and that all instructions are properly carried out, the agricultural missionary helps to ensure the success of the demonstrations while maintaining his credibility in the local community.

The emphasis placed by agricultural missionaries on introducing technology that is relatively simple and inexpensive and, therefore, easily understood by the farmer, as well as affordable, is in keeping with the Morss et al. emphasis on increasing the probability that the project's benefits will be self-sustaining. Introducing technology that is too complex to be understood and effectively utilized by the farmer (and that probably stands little chance of being adopted in the first place) is certainly not conducive to the creation of self-sustaining activity; likewise, technological innovations that require the farmer to incur a debt that would jeopardize his livelihood in the event of crop failure are too "costly" to be justified in light of the risk involved.

Introducing technologies that are based upon the utilization of locally available resources is another way of increasing the probability that benefits achieved in the

process of project implementation will be sustained in the long-run. Tractorization, for instance, might be highly beneficial in the short-run; but what happens in the long-run when the tractors break down and the spare parts necessary for their repair are not available locally and/or no one in the area has the requisite skills for maintaining and repairing the machines? Indeed, accounts of agricultural projects that have failed because of an excessive dependence on "outside" resources abound in the literature. Though missionaries have been as guilty as others of introducing technologies that depend too heavily on inputs to be obtained by them through mission-related channels, evidence indicates that mission agencies are now aware of the negative impact of such action and are consciously seeking to train their mission personnel to work within the context of creating self-sufficiency in the local community. The missionary may at first be primarily responsible for obtaining inputs for the agricultural program of the mission, and the mission may at first absorb some or all of the cost of obtaining inputs; at some juncture, however, the farmer begins to assume more control over input supply and becomes more accountable financially. Indeed, to be able to witness the progression from mission- to farmer-control is the reward to the agricultural missionary for his years of service on the mission field.

The advantages associated with "starting small" and introducing technology a step at a time are well documented in the literature. To attempt to introduce too much too soon can cause increased resistance on the part of farmers who, among other things, are normally fearful of disturbing their present farming environment. Indeed, the resistance to technological innovation is often strong and stems from a variety of factors that may not be readily apparent, as evidenced in Mendras' account of the introduction of hybrid corn into the Southwest of France. To introduce technology on the basis of technical viability alone--a common practice in many programs of agricultural assistance described in the literature--is to completely ignore all of the social, psychological, economic and political factors that weigh heavily in the farmer's decision with respect to technology adoption. The agricultural missionary attempting to minister in a wholistic manner is undoubtedly more concerned with the effect on the farmer of technology adoption than is the government extensionist who is often overburdened with the various aspects of his role as a government functionary and, consequently, has little real contact with the farmer. Attitudinal and institutional factors that might inhibit technology adoption are often known and addressed by the agricultural missionary who has taken the time to establish relationships with local community members and has lived in the community long

enough to learn the "ins-and-outs" of the local situation; a government extensionist or a "visiting" expert on a technical assistance team of a large donor agency, on the other hand, may be unaware of, and therefore unable to adequately address these factors in their programs of agricultural assistance. Since the missionary will be in the community for more than a few days or weeks, he will also be more likely (as opposed to those that merely "visit") to introduce technology at a pace that will be conducive to its acceptance and continued use by community members.

The successful adoption of new technologies by the farmer often requires extensive training; and the agricultural missionary is in a unique position to provide that training. His daily contact with local farmers gives the missionary the opportunity to provide continuous on-farm training, which is probably more effective than providing extensive periodic training through special seminars and classroom instruction. As most agricultural missionaries have practical on-farm experience, they are probably able to accomplish more at the community level than are government extensionists who, according to the literature, are often townspeople with only theoretical training who have never even lived in a rural area. By working with the farmers in their own setting, it is also more likely that they will be taught those things that are

appropriate for their particular situation. Indeed, knowing what does and what does not work in the local area allows the agricultural missionary to provide a developing country with what is so often lacking in the field of agricultural development--feedback to the researcher from the field so that more appropriate technology can be developed.

CHAPTER X

SOUTHERN BAPTISTS: FIGHTING HUNGER WITH A DIFFERENCE

According to the Mission Handbook: North American Protestant Ministries Overseas, the Southern Baptist Convention, Foreign Mission Board is the United States's largest Protestant mission agency, both in terms of reported overseas personnel and in terms of reported income for overseas ministries (Wilson 1980: 55-56). Though the Southern Baptist Foreign Mission Board is not listed under "Agricultural Assistance" in the Mission Handbook's directory of agencies listed by primary task, Southern Baptists (because of the "largeness" of their convention) probably conduct more agricultural work overseas than do the agencies that have listed agricultural assistance as one of their primary tasks. In fact, of the 106 missionaries who returned at least some portion of the survey questionnaire utilized in this study, approximately one-third (thirty-one missionaries) were associated with the Southern Baptist Convention, Foreign Mission Board.

FIGHTING HUNGER WITH A DIFFERENCE

"Relief" work has always been a part of Southern Baptist work overseas; in recent years, however, the extent of involvement and the formal shape taken have changed. The Foreign Mission Board, for example, still distributes

grain in critical situations, but most hunger/relief funds are now being allocated to long-term development projects. Hunger-related projects, once viewed as an "extra" duty, have become an integral part of the work of Baptists overseas. Though Southern Baptists are giving more than ever before to world hunger and relief, the requests from the field are pouring in faster than they can be met as Southern Baptist missionaries all over the world have begun to adopt the Board's wholistic approach to missions--ministering to both the spiritual and physical needs of mankind (Creswell Sept. 1985: 46; Welch Oct./Nov. 1984: 65).

While Southern Baptists still send millions of relief dollars to other agencies, they are beginning to have more confidence in their own Foreign Mission Board as a "secure, legitimate, effective and efficient channel" for their hunger relief funds (Creswell Sept. 1985: 46). The Foreign Mission Board not only operates differently from most secular hunger agencies, but also from many private church-related agencies. What makes the relief channel of Southern Baptists different? The following eight points spell out some of those basic differences.

1) <u>All hunger relief funds channeled to the Foreign Mission Board by Southern Baptists are used to fight hunger overseas; none is used in the United States for administration and promotion</u>. This is in marked contrast

to many fund raising agencies which spend half or more of their receipts on promotion and administration at home. The Southern Baptist Foreign Mission Board is able to channel all hunger relief funds into hunger relief projects because all administrative and promotional expenses are absorbed by the Board's regular budget--money received through the Southern Baptist Cooperative Program (most local Southern Baptist congregations contribute regularly to a cooperative fund, some of which is allocated to the Foreign Mission Board) and the Lottie Moon Christmas Offering (a special Christmas offering named after a Southern Baptist missionary to China, which is designated entirely to the Foreign Mission Board). In carrying out hunger relief projects overseas, the Board simply utilizes their missionaries already on the field whose salaries and expenses are already being paid for out of the Board's regular budget. The Board's relief work through their career missionaries is strengthened and expanded by utilizing lay volunteers from the United States in special hunger-related projects and, as in all projects, by utilizing national Baptists as extensively as possible.

2) Much of the success of Southern Baptist hunger relief work overseas can be attributed to the fact that career missionaries oversee the work; it is not left in the hands of persons "unseen," who may or may not care about the task at hand. Indeed, the fact that the Southern

Baptist Foreign Mission Board utilizes its own missionary force to carry out hunger-related ministries has been a big plus. While most other church groups have separate relief offices, the Southern Baptists have the distinction of being the only major denomination in the United States that handles relief as an integral part of regular evangelism and church-planting ministries.

3) Southern Baptist missionaries are well qualified to carry out hunger-related projects. Many of the missionaries are highly skilled agriculturists, medical personnel, veterinarians, and other specialists well able to contribute significantly in the fight against world hunger. Their educational background, though important, is not the only thing, however, that makes the missionaries effective; for with training, even non-specialist Southern Baptist missionaries have proven quite competent to carry out hunger-related projects. The key to the success of Southern Baptist relief efforts is that the career missionary continues to be the backbone of its overseas missionary force. Southern Baptist career misisonaries spend a significant portion, if not all, of their lives in a given area--they know the people, the culture and the language of the locality better than any "visiting" outsider ever could. They can design and supervise programs that are truly in tune with the people and their real needs.

4) Because Southern Baptist missionaries are assigned to a country on a long-term basis, they have time to develop long-term teaching projects that help people become more self-sufficient; they are able to focus on long-term solutions to hunger problems. Outright food distribution is necessary in times of crisis, and Southern Baptists have excelled in developing a disaster relief system that has been prasied by governments in several nations for its fairness and efficiency. Southern Baptists are not in the business, however, of feeding people today, while neglecting the task that will allow those people to eat in the future as well. Long-term development efforts are now being conducted, for instance, by Southern Baptists in Mali and Ethiopia--the two countries that have been, and contine to be, the focus of massive food distribution efforts.

5) The Southern Baptist Foreign Mission Board accepts no government funds. Though many other mission agencies do accept government funds, Southern Baptists have always maintained a "separateness of church and state" in the area of funding. The Board's approach allows much more flexibility and control, and yet leaves open the option of cooperating with governments or other relief agencies in suitable circumstances. The Foreign Mission Board has contracted on several occasions, for instance, to be the deliverer of surplus United States government grain in localities where they have missionaries who can oversee the

distribution to assure that it is delivered to the most needy.

6) The Southern Baptist Foreign Mission Board has adopted a wholistic approach to meeting human needs: Southern Baptist missionaries address both spiritual and physical needs in their ministry to individuals overseas. According to Southern Baptists, combining efforts to fill empty hearts with efforts to fill empty stomachs is Biblical; and hundreds of projects conducted in countries all over the world in the last decade have shown that evangelism and hunger-related ministries are compatible and can be carried out without producing "rice Christians," who feign conversion only to receive food.

7) The Southern Baptist effort toward combatting world hunger has strengthened, rather than detracted from, the Foreign Mission Board's work in evangelism. Food distribution projects and long-term development projects have opened many doors for Southern Baptist work that might otherwise have remained closed. Impressed by Baptist relief efforts in neighboring Burkina Faso, the Malian government, for instance, requested that Southern Baptist missionaries begin to work in their country as well. The Baptist mission in Mali, though initially focusing on food distribution, has plans to expand their ministry to include evangelism and church development.

8) In the last decade, the Southern Baptist Foreign Mission Board has made a long-term commitment to combat world hunger; it has made fighting hunger overseas an integral part of its overall overseas ministry. Three full-time consultants--John Cheyne, Don Turner, and Van Williams III--oversee the "relief" work of the Board through its recently established Human Needs Ministries division. These individuals have a major voice in all mission strategy and planning, and they are helping to develop and spread the Board's wholistic ministry concept (Creswell Sept. 1985: 45).

SOUTHERN BAPTIST HUNGER-RELATED PROJECTS

The Southern Baptists have conducted hundreds of hunger-related projects in countries all over the world in the last decade. Three of these will be described. The first two--the Sanwabo project and the "Partners in Wholeness" project--represent what the Foreign Mission Board is now referring to as a new chapter in partnership missions. Since 1978, the Board has been pairing state conventions in the United States with overseas Baptist missions and conventions. The Tennessee-Upper Volta Sanwabo project was the first "partnership" effort based primarily on meeting basic human needs, rather than on evangelism and church planting. The North Carolina-Togo "Partners in Wholeness" project is only one of the many

partnership efforts that, based on the success of Sanwabo, is currently in progress. In partnership projects, hundreds of volunteers from the particular state involved actually go to the foreign country to assist in the project. These partnership projects are accomplishing something that has never before been accomplished in the history of the Board--it is putting large numbers of Southern Baptists in touch with the needs that they contribute toward financially and that they pray for in their local church congregations. Through partnership projects, the eyes of Southern Baptists are being opened to the problem of world hunger in a way that would probably not be possible otherwise (Welch May 1984: 59-60).

The Mindinao Baptist Rural Life Center, unlike the other two Southern Baptist efforts that will be described, has been in existence for some fifteen years. The Center, highly successful throughout its fifteen year history, has in recent years attracted worldwide attention for the contributions it has made toward agricultural development in the Philippines (Webb Oct./Nov. 1985: 54-56).

Tennessee-Upper Volta Sanwabo Project

The most ambitious "relief" project ever conducted by the Southern Baptists is the 1981-1985 Sanwabo project in Upper Volta (now Burkina Faso), West Africa. The tremendous success of the Sanwabo project has established the project

as a model of developent--a model that is now being replicated by Southern Baptists all over the world (Creswell Sept. 1983: 20).

The five year program in Sanwabo, located approximately 135 miles from the capital city of Ouagadougou, has been a massive undertaking that has radically changed the lives of more than 8,000 people in seventeen rural villages. Baptist workers, including several long-term missionaries and hundreds of long- and short-term volunteers, have been instrumental in aiding area residents to better meet their most basic human need--the need for food and water (Ibidem).

In Sanwabo, where only fifteen wells and one small lake existed in 1980 to provide water for more than 8,000 people, the "biblical urging to give a drink of water in Christ's name [was] no small matter (Ibidem: 18)." Since the majority of the wells would dry up during the dry season and the lake (the remains of a long-defunct French development effort) was almost beyond repair, the need for water had become urgent (Ibidem: 21). Consequently, to fulfill the Biblical mandate required the Baptist mission to propose what may have initially been regarded by many as a "thoroughly immodest" proposal: They would not just aid area residents in the digging of water wells, but they would actually create a lake and build a dam; and they

would keep the project as labor intensive as possible (Ibidem: 12).

With the full cooperation of the Voltaics in the area, normally through the provision of labor for digging, hauling and other tasks, the lake and the dam became a reality in 1982. In that year hundreds of United States volunteers, primarily from Tennessee, and Voltaic workers moved 48,000 cubic yards of earth and then placed 1,300 cubic yards of rock along the dam for erosion control, racing against time to complete the dam before the first rains of the wet season. Since its completion, the mission has taken numerous steps to ensure the preservation of the lake. It has corrected a seepage problem that became apparent in the first year when the lake, though managing to retain water throughout the dry season, was reduced in size from sixty to twenty acres due to evaporation and seepage. Observing that the lake was quickly becoming a watering stop for area livestock, the mission and area residents built a series of wells and ten catchments to provide for alternative livestock watering and agricultural use. Anticipating the problem of parasite infestation, the mission has also begun an intensive educational effort to teach villagers proper use of lake water (Ibidem: 21).

The provision of clean water for drinking purposes is only one of the many achievements of the joint project between the Upper Volta Baptist Mission and area residents.

Some of the ponds created in the area will be utilized for the introduction of fish farming, making available to local people a good source of protein that is desperately needed. In developing the program, Larry Cox--the long-term agricultural missionary assigned to the Sanwabo area--has sought the advise on numerous occasions of a teacher he discovered at the national university at Ouagadougou who is not only a faithful Baptist, but who also holds a graduate degree in ichthyology from Auburn University (Ibidem).

One of the most effective efforts of the Southern Baptist program in Sanwabo has been the introduction of dry-season vegetable gardening. With seeds provided by Royal Ambassadors (a boys' mission organization) of Tennessee, vegetable gardens were begun in 1983 alongside three catchment ponds built below the dam. The first 120 participants received metal watering cans, a rare and expensive item in the Sanwabo area. Of 165 gardens attempted, 121 succeeded in the first year--a good showing since most of the abandoned plots belonged either to children under twelve or to elderly individuals who could not make the long daily walk required (Ibidem: 22).

Introducing vegetables to the area was not, according to Mission Service Corps volunteer Guy Causey, without its problems. Local farmers had to be "convinced," for instance, to dig deeply enough to prepare the soil correctly, since shallow digging is adequate for their

traditional crops of millet and sorghum. In the case of green beans, never before grown in the area, allowing the crop to fail was the only way for mission personnel to convince local farmers that they could not let beans dry on the plants as they do their peas (Ibidem).

Larry Cox, along with volunteers such as Guy Causey (an agricultural education specialist from Tennessee), has taken many steps to ensure the success of the gardening program. A model garden has been maintained near the villagers' plots so that they can observe how the crops should look when given proper care; villagers have been trained to add leaves and manure to their plots since Sanwabo soil is of poor quality and area residents cannot afford fertilizer or insecticide; and Guy Causey will soon begin to conduct more formal classes on gardening skills. The work on the part of the mission and the Voltaics has been long and hard. According to Causey, most gardens in the Sanwabo area are capable of yielding about half of what might be produced by a weekend backyard gardener in the United States; yet, in Sanwabo each small garden requires at least three to four hours of hard work daily (including hauling water) to keep it going (Ibidem).

In addition to the introduction of vegetable gardens, Larry Cox has set up grain plots to demonstrate improved growing techniques; he has introduced a new corn variety that has grown very well and is expected to spread

throughout the area; and he has begun to make fertilizer and insecticide available at an affordable price, as the mission is absorbing the transportation costs. Cox hopes to see many other things accomplished in the mission's agricultural program in the years to come, but he is exercising patience in not attempting to do too much too soon. He recognizes that some steps that could be taken by the mission now, such as the introduction of animal traction, would do more harm than good at this stage in the mission's agricultural program--a program which will continue long after the official termination of the Sanwabo project. Cox's respect for area farmers prevents him from trying to make them into modern Western cultivators. "Let's face it." he says. "These people are intelligent in the art of survival. They know how to make this poor dry soil produce food. We learn from them. . . . We're not trying to make them take a giant step into the twentieth century (Ibidem: 23)."

Crop improvement programs begun in the Sanwabo project have been supplemented by livestock improvement programs. For another source of food, Larry Cox is breeding rabbits, attempting to develop a breed that will be disease-resistant yet large enough to provide meat. He is also exchanging healthy roosters for sickly ones to improve breeding stock (Ibidem). John Mullins, a veterinarian from Tennessee who like Causey is a two-year Mission Service

Corps volunteer, has been an invaluable assistant to Cox in the development of the mission's livestock improvement program. Mullins has become widely known in the Sanwabo area because of his extensive travels throughout the region. In addition to treating diseased animals, he has launched a massive vaccination campaign, hoping to reduce future problems through an emphasis on preventative, rather than curative, veterinary medicine. Mullins, like Causey, has encountered "attitudinal" problems in his work in Sanwabo. The "wait-and-see" attitude of area residents, who seem to know that their chickens are going to die, but who, nevertheless, allow diseases to kill them instead of allowing them to be vaccinated, is especially frustrating (Ibidem: 25).

Though the Baptist lake at Yatenga has been considered the "centerpiece" of the Sanwabo project, the project is truly representative of an integrated approach to rural development. The massive efforts in the area of water development, as noted, have been complemented with the introduction of fish farming and vegetable gardening as well as on-going programs of crop and livestock improvement. But that is not all. During the five-year project, hundreds of English-speaking Tennessee volunteers have gone to Sanwabo to teach area residents to read and write in their native More. The literacy program begun in the project is to be continued by long-term missionaries as

a part of the mission's on-going program in the area. The long-range goal for the mission's literacy program is two-fold: to enable the people to read the Bible and to enable the people to read simple agricultural materials that are available in More (Ibidem).

The Sanwabo project, though plagued by problems that are common to all development efforts, has recieved "attention far and wide in Upper Volta and has played a direct role in Southern Baptist missionaries being able to enter the neighboring country of Mali (Ibidem: 27)." It has become the source of inspiration for many similar development efforts now being conducted by Southern Baptists in other countries, particularly in West Africa.

North Carolina-Togo "Partners in Wholeness" Project

The North Carolina-Togo "Partners in Wholeness" project, begun in January 1984 and scheduled to run through 1986, is radically changing the lives of the people who live in the remote Moretan area of the Upper Ogou region of Togo. The Moretans, never before assisted by a development agency or group, have welcomed the Baptists with open arms and have been eager to cooperate in every aspect of the mission's program (Welch Jan. 1986: 30).

The North Carolina-Togo project, like the "model" Tennessee-Upper Volta Sanwabo project, is addressing the most pressing problems in the area. The urgent need for

water--always mentioned first by area residents when asked to list their greatest needs--necessitated that well-drilling be assigned top priority in the first year of the project. Jerome Ethredge, the long-term agricultural missionary assigned to the Moretan area, set an ambitious goal for North Carolina volunteers who would be involved in the well-drilling aspect of the mission's "total impact" program: by the end of the first dry season, twenty-five wells would be drilled in the area. North Carolina volunteers accepted the challenge and by early March (1985), with two to three months left before the beginning of the rainy season, they had already surpassed the goal set in December (1984). Ethredge, impressed by the progress of the drilling effort and concerned about project sustainability, began to search for a simple hand pump that could be maintained by area residents and that would be available in Togo. Upon learning of a company in the country which had intentions of producing a popular variety, Ethredge placed an order for twenty pumps to encourage the company to begin production. The company did begin production, and the pumps have worked so well in the area that further orders have been placed. Concurrent with the drilling of wells, water catchments or farm ponds have been constructed in Moretan so that area residents can have water available for dry season gardening and for watering their livestock (Ibidem: 31).

The need for better access to markets, medical facilities and other services, mentioned by area residents almost as frequently as the need for water, is especially acute in the rainy season when the Mono River floods and cuts the Upper Ogou region off from the rest of the country. In response to this need, North Carolina and Togolese volunteers have undertaken a task in the "Partners in Wholeness" project that certainly equals the task of creating a lake undertaken by Tennessee and Voltaic volunteers in the Sanwabo project. They are building a bridge across the Mono River. The designer of the bridge, North Carolina engineer Barney Barnett of Asheville, first visited the project site in April 1984. He returned to Togo in January 1985 with plans in hand, and construction was soon underway--a miracle in light of the fact that it normally takes months, and sometimes years, to obtain the government approval required for building even a simple house in Togo (Ibidem).

Though water development has dominated the work of the Baptist mission in the Moretan area in these early years, Jerome Ethredge hopes to expand the agricultural program of the mission significantly in the years following the official termination of the North Carolina-Togo partnership project. In fact, the buildings built in the first year of the "Partners in Wholeness" project to accomodate North Carolina volunteers will eventually accomodate Togolese

students at the agricultural-Bible school envisaged long ago by Ethredge and Mike Key, the other long-term missionary assigned to this remote area of Togo. Ethredge is excited about the prospect of introducing animal traction, improved breeds of small animals and plant varieties that will increase yields. He also hopes to make good use of the new farm ponds created in the three-year project by teaching area residents to raise fish, ducks and dry-season gardens (Ibidem).

Health care education, already begun by Joann Ethredge and volunteer nurses in the "Partners in Wholeness" project, will continue to complement the agricultural program of the mission in the years to come. Literacy work, though not a significant part of the North Carolina-Togo project because of the lack of a written language in the area, will be undertaken by Marsha Key as soon as Wycliffe translators have completed some materials that can be utilized in the teaching of the Ife language (Ibidem).

Mindanao Baptist Rural Life Center

Harold Watson, Southern Baptist agricultural missionary and director of the Mindanao Baptist Rural Life Center in the Philippines, was the 1985 recipient of the prestigious Ramon Magsaysay Award for international understanding. This honor, considered in Asia to be the equivalent to the Nobel Prize, has been awarded to only a

handful of non-Asians in its twenty-eight year history. In naming Watson as the 1985 award recipient, the Southern Baptist missionary was praised for his many years of service to "the poorest of small farmers" by encouraging the international use of Sloping Agricultural Land Technology (SALT), a method of hillside farming developed by Watson and two Filipinos. According to the Ramon Magsaysay Award Foundation, more than 6,000 people from countries throughout Asia travel to the Philippines each year to study SALT at the Mindanao Baptist Rural Life Center (Webb Oct./Nov. 1985: 56).

The Baptist Rural Life Center, located at Kinuskusan, Bansalan on Mindanao, has received worldwide attention in recent years. Visitors from every corner of the globe have begun to make their way to the Baptist Center to observe its methods and programs. United States Peace Corp workers and volunteers from Great Britain and the Netherlands are now routinely scheduled for training at the center. The United States Agency for International Development has translated the center's teaching materials into Indonesian, and Indonesians visiting the center report that SALT is well known among Indonesian government technicians. The Australian development project on Mindanao uses SALT as its primary method of hillside farming, and several mission groups, including New Tribes Mission and Overseas Missionary Fellowship, have begun to utilize SALT

techniques in working with tribal people. Philippine land-grant colleges and universities are now sending professors, students and extension workers to the Baptist center for training; and the Philippine Ministry of Agriculture sends groups of technicians and farmers to the center every month (Ibidem: 55).

What is SALT? Basically, SALT involves the creation of terraces on steep hillsides utilizing inexpensive materials and then planting fast-growing ipil-ipil trees to protect the terraces from washing away in tropical downpours. The ipil-ipil trees not only guard against erosion, but also serve as fences and as a source of animal feed, fertilizer and firewood (Ibidem: 54).

Watson and his team at the Mindanao Baptist Rural Life Center, though able to see the fruits of their labor all around them, continue year after year to expand and improve their program aimed at combatting hunger and malnutrition in the Philippines. Since many Filipino farmers have limited access to markets, the Rural Life Center has recently begun, for instance, to explore ways to integrate livestock projects with the regular SALT plan. The Baptist Center's long established custom of naming their programs with acrostics has resulted in their new program being named Animal-Salt-INtegration, or ASIN--which happens to be the local dialect word for "salt." Another of the center's programs, Baptist Out Of School Training (BOOST), offers

young Filipinos who are no longer in school an opportunity for training in farming methods, Bible study and a variety of other skills, such as how to teach others to read. When the young people return home, they often become model farmers and church leaders in their respective communities (Ibidem).

The Mindanao Baptist Rural Life Center, famous for the research and training it conducts in the area of hillside farming, is also known for the work it has done, and is currently doing, in the area of goat development. Agricultural staff members at the center are well on their way to developing a meat goat for the Philippines--a goat that, as a result of breeding, will weigh at four months what the average Philippine goat weighs when full grown. The Baptists are also attempting to develop an "intermediate milk goat"--a goat that will be hardy enough to live anywhere and yet produce enough milk for a farm family (Ibidem).

When asked why the Baptist Rural Life Center has been so successful, Harold Watson cited several key factors which, in combination, have spelled success.

1) All of the center's projects have grown out of the expressed needs of farmers.

2) Each program has been thoroughly tested before being introduced to the farmer.

3) The programs have followed a set of guidelines built around the word "salt": They have been Simple, Applicable (to at least half of the hillside farmers), Low-cost and Timely--something needed now.

4) The staff has introduced the program of hillside farming to the farmers first, and then they have approached all who may be involved in the implementation of the agricultural technology--technicians, college and university professors, government policy makers, et cetera.

5) The center has set up a demonstration plot for teaching and an experimental plot for testing; and it has used teaching methods that farmers can easily understand, such as HOE--Hands-On Experience.

6) For teaching aids, the center has developed flip charts, a manual and a slide presentation; the staff also produces radio programs and has prepared articles for agricultural magazines and newspapers.

7) Finally, the center has developed a healthy philosophy: "Outside people can help, but inside people must actually do the work (Ibidem: 56)."

A PERSONAL INTERVIEW

Much insight into the basic philosophy of Southern Baptist mission work overseas was obtained by the researcher through a personal interview with John Cheyne, Senior Consultant for the Human Needs Ministries division

of the Southern Baptist Foreign Mission Board, and Fred Sorrells, Southern Baptist agricultural missionary to Burundi (June 28 1985).* Cheyne, former missionary to Africa who helped to open Baptist work in Ethiopia in the late 1960s, provides on-site training for missionaries in how to plan and carry out hunger-related projects; in 1984, he designed and taught a course on "Relief and Development in the Context of Missions" at Southwestern Baptist Theological Seminary in Fort Worth, Texas (Creswell Sept. 1985: 45). Fred Sorrells and his wife Samilee completed their first four-year overseas assignment in 1984. Much of their first term was spent in language study and in laying a solid foundation for the agricultural work that they hope to expand upon in their second four-year assignment to the Kirundo area of Burundi. Sorrells holds a master's degree in agriculture and a master's degree in religious education ("Missionary" June 1986: 24).

Though agricultural work has always been a part of Southern Baptist efforts overseas, there has been more of an emphasis on agricultural assistance in the last twenty years. Over sixty agriculturists are currently at work in Southern Baptist mission fields all over the world. In addition to the sixty-plus agriculturists, there are many

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*A transcript of the interview with John Cheyne and Fred Sorrells can be found in Appendix D.

veterinarians who assist in agricultural programs. There are also numerous missionaries whose primary assignment is something other than agricultural work, but who are becoming involved in agricultural assistance because they have a background in that area and see the need for agricultural programs in the country to which they have been appointed.

Financial support for special "human needs" projects, which would include agricultural assistance, pour in from Southern Baptists all over the world through contributions to specially designated offerings. All of the monies collected in these special offerings go directly into the projects, as all administrative costs of fund raising/transmission and support of agency and missionary personnel are met through Foreign Mission Board funds received through the Cooperative Program and the Lottie Moon Christmas Offering.

All Southern Baptist agricultural projects originate in the field. Though agency personnel may be catalysts in going to a mission to suggest that the missionaries begin looking into certain areas of need, the request for a project always comes from the missionaries in the field. The projects are monitored by agency personnel, but the overall evaluation of projects is left up to the missions themselves.

To enhance their effectiveness in the field, Southern Baptist "career" missionaries are required to know the language of the country to which they have been appointed. This often involves gaining competency in two languages, as the language of the particular locality in which the missionary will be working may be different from the "national" language. Though much of the language learning process must of necessity occur after the missionary is in the field, the Southern Baptist Foreign Mission Board does provide a period of formal language training for all career missionaries prior to their arrival on the mission field. That language ability is considered vital is evidenced in the fact that a missionary cannot become a voting member of the mission until he or she has completed a certain degree of language competency.

The emphasis placed by Southern Baptists on language competency goes far beyond the ability to verbalize. Indeed, when Southern Baptists speak of language competency that automatically encompasses a certain degree of "cultural" competency. All missionaries assigned to a new country, for instance, have an eight week orientation in which they sign a contract stating that they will complete a thorough study of the country to which they have been assigned. While in language study overseas, they are also given instruction which is specifically aimed at increasing

their cultural competency. According to John Cheyne, Southern Baptist missionaries

> have a very high anticipation of entering into a culture of which language is only a part. So the understanding of that culture anthropologically, of the people, of literally entering into and being aware and sensitive to the structure of that society, the implications of certain customs, et cetera--all of these things are extremely important.

The career missionary is the backbone of Southern Baptist work overseas. Indeed, all projects are "based on the presence of a career missionary working in the context of the local community with nationals." Outside consultants, such as an engineer or a specialist in water development, are often brought in to initiate phases of some of the larger projects, but it is the long-term missionary appointed to the area who coordinates the project. Much emphasis is placed on training nationals to take over in all areas of the mission's program. In fact, an important reason for bringing in outside consultation is to train the nationals to do those very things that are vital to the success of the community's agricultural program. Short-termers, many of whom are lay volunteers, are being used in large numbers (over 6,000 in 1984) in the work of Southern Baptists overseas; they are not, however, taking the place of nationals, and the long-term missionary "who, though inobtrusive as possible, is perhaps the

primary person to stimulate and act as the catalyst to keep the project going."

Local community participation is considered an essential ingredient of all Southern Baptist agricultural programs being conducted overseas; and heavy reliance on long-term agriculturists who, moreso than the short-termer, are comfortable with the local language and have a thorough grasp of the local situation is a plus factor in the attainment of local community involvement. Nationals have greater confidence in an "outsider" who has the ability to communicate with them and who is aware of their special needs and concerns; and the "outsider" who can communicate and who is intimately familiar with the local situation is much more likely to have the confidence necessary to actively seek the involvement of community members in a program of agricultural improvement. Their training for mission work and their experience on the field has taught Southern Baptist career missionaries that project sustainability depends heavily on allowing the local community to feel that the project is truly their own. Allowing community members in Sanwabo, Upper Volta to participate in the building of a dam, for instance, was thought to be the best approach by long-term missionaries in the area, in spite of the proposals made by short-termers to make the project more "efficient" from the American point of view by making it more capital intensive.

To ensure some degree of objectivity upon entering into a new mission field to begin agricultural work, Southern Baptist career missionaries are trained to assess needs and identify problems from three different vantage points. Along with viewing needs and the problems that are causing those needs from thir own perspective, the missionaries interact extensively with members of the local community so that they can become aware of how the community itself perceives its needs and problems. Missionaries are also encouraged to make as many contacts with government personnel/agencies as possible to gain insight into the concerns of the community from the vantage point of the government. Since the perception of the three groups involved--the expatriate, the local community and the government--are "likely to come from a completely different set of dynamics," it is highly unlikely that the needs and problems identified by any one group will coincide exactly with those identified by the other two. When possible, however, priority is given to those areas of need in which a common perception does exist between all three groups, or at least between two of the three.

Identifying the "natural" leadership of the community is also stressed by John Cheyne when giving pointers to career missionaries to aid them in their overseas endeavors. The "natural" leadership is not always easy to identify as it may not necessarily be the elected or

selected leadership in the community. To find out "who it is that the people listen to, and then to listen to the same person" is very enlightening. To know where the community is "getting its sense of direction from" and who is "speaking the loudest to them" is invaluable to the expatriate. The missionary is also advised that even in a male-oriented society, which is common to many of the localities in which they serve, there will usually be "a very strong woman personality who is a leader in the community and must be listened to" as a "primary source of much of the community's wisdom."

Upon ascertaining some of the critical needs of the community, the missionary is to encourage community members to seek solutions to the problems that are behind those needs. The missionary's job is not to impose his own ideas on the community. By asking the appropriate questions, however, the missionary is often able to lead the people to the very solutions that would have been suggested to them in the first place. Regardless of whether or not the solutions arrived at by the community actually coincide with those that would have been proposed by the missionary, it is advantageous to allow the community the opportunity to find and implement their own solutions.

When assigned to a new mission field, long-term agricultural missionaries are strongly encouraged to undertake a careful and complete resource analysis. By

promoting the use of local resources in their agricultural programs whenever possible, the missionary increases the community's awareness of its resources and prevents community members from feeling that project success hinges on the importation of external resources. Cheyne's philosophy is that "the larger the dependency on external resources, the less the probability of project success." Southern Baptist missionaries are encouraged, therefore, to "work within the context of creating self-sufficiency." The provision of a building, for instance, would probably be viewed with less hesitancy than would the provision of a tractor, as the latter would be more likely to create a dependency because of the training and funding that would be required to operate and maintain it. Resource commitments on the part of project participants are encouraged as they indicate rather clearly that the community is involved and does have a stake in seeing that the project is successfully implemented and sustained. The particular type and the particular magnitude of the resource commitment are of secondary importance to the fact that members of the community are truly involved in the development process.

Southern Baptist missionaries are also instructed to establish and maintain a healthy relationship with the host government of the country to which they have been appointed. Though they do maintain a "separateness" of

funding, the missionsaries make a conscious effort to "tie into government planning and the utilization of government structures." Even in those countries whose governments are oppressive and negative, the philosophy of the Southern Baptist Foreign Mission Board is to seek to work within "the context of gaining the maximum good will of the people" and to avoid treating the government as an adversary to be overcome. Indeed, missionaries are keenly aware of the fact that their continued existence in many countries is heavily dependent upon the type of relationship they have been able to establish with those in political power.

Rather than entering into communities that are already being effectively assisted by the host government or some outside "aid" agency, Southern Baptists normally limit their programs of agricultural assistance to communities whose needs are not being, and have little chance of being, addressed by their government or some other group or agency. That does not mean, however, that Southern Baptists avoid working alongside the host government and others involved in agricultural assistance. Quite often, for instance, a Baptist Mission will make arrangements with the host government to conduct a joint project in which the Mission agrees to be responsible for a certain phase of the project conditioned upon the host government's agreement to take responsiblity for another phase. Though Southern

Baptist missionaries avoid situations that would make them appear to be supplanting or competing with the efforts of the host government, they do support and work toward making more effective the efforts of the host government in the field of agricultural assistance. When asked by the government to open a breeding station in Ethiopia, for instance, Southern Baptist missionaries declined the invitation, but agreed to cooperate fully with the government to make its breeding station more effective. Fred Sorrells, Southern Baptist agricultural missionary to Burundi, sees a tremendous need for more and better potato research in the area to which he has been appointed; rather than requesting that Southern Baptists establish their own research center, however, he cooperates fully with the government research center by providing researchers with the one thing that has always been lacking in their program--effective feedback from the field. Indeed, to "fit in" at the point of greatest need is a major goal of Southern Baptist agricultural missionaries; to complement, rather than to compete with, the work of the host government is necessary to achieve this goal and, practically speaking, is the wisest policy in light of the limited resources of their mission agency.

Because they actually live and work among the people that are to "benefit" from their mission's agricultural program, Southern Baptist missionaries are consciously

aware of, and sensitive to, many of the realities of development work that some in the field of development have only heard or read about. The importance of listening to and learning from the local farmers and the importance of considering the risk constraint that affects small farmer adoption of new techniques/technologies are, for instance, two of the many lessons of successful agricultural assistance that are quickly learned by missionaries who experience first-hand the consequences of neglect in such areas.

Since failure in one project has often been translated into success in others when an effort has been made to learn from past mistakes, John Cheyne speaks freely of the failures as well as of the successes that have been experienced in the agricultural assistance efforts of Southern Baptist missionaries. Indeed, the lessons learned from past mistakes have helped to shape the current philosophy held by the Board and its missionaries with regard to development assistance. The Board's emphasis on conducting "integrated" programs of agricultural assistance, for instance, stems largely from a well-drilling project in South America, to cite but one example, that failed miserably because it concentrated on providing clean water but made no provision for instruction with regard to the importance of using clean water.

In responding to questions with regard to the agricultural assistance efforts of mission agencies as compared to those of government agencies (and their relative chances for success), John Cheyne pinpoints what he feels to be the key to the success that Southern Baptists have enjoyed in their overseas development endeavors. According to Cheyne, Southern Baptist career missionaries involved in "human needs" projects are instilled with the idea that they are to be primarily person-centered rather than project-centered. The constant focus of the missionary on the individual--"his concerns, his feelings, his hurts, his ability to develop and to grow"--rather than on the project per se keeps the efforts of Southern Baptists in tune with the needs and desires of the persons with whom they live and labor.

The work of Southern Baptists overseas, Cheyne emphasizes, is coordinated by a mission board that advocates a "wholistic" approach--ministering to the "whole" person by addressing both physical and spiritual needs. The agricultural programs, like all programs being conducted overseas by Southern Baptist career missionaries, are simply a part of a total Christian witness that views individuals in a "wholistic" way. The Southern Baptist Foreign Board is not and, according to Cheyne, will never become a relief agency dedicated to agriculture or any other "functional" ministry. Indeed, there is no

dichotomizing between "relief" work and "mission" work in the overseas endeavors of Southern Baptists; for to allow such a dichotomy would force the agency to abandon its person-centered approach in favor of the project-centered approach that must, of necessity, accompany the work of a relief agency.

CHAPTER XI

CONCLUSION

CHRISTIAN MISSIONS--CROSSING THE SECULAR FRONTIER

The Commission on World Mission and Evangelism of the World Council of Churches, held in Mexico City in December 1963, emphasized "the need for the Christian mission to meet with men in their life 'in the world,' outside ecclesiastical structures and habits of thought and action, and within the structures, relationships and activities of human societies (Orchard 1964: 8)." While reaffirming the view of the missionary task as one which involves crossing frontiers, the Mexico meeting emphasized the need for crossing not just the "traditional" geographical frontier but also the secular frontier: The Christian missionary who is called to leave one nation to go to the people of another nation is also called to enter into the secular world of the people to whom he ministers (Ibidem: 8-9).

> In other words, the mission must be not only to men in the relationship they have created in the British or the Indian or Chinese nation, but also in the relationship they have created in, for instance, the various forms of industry, or in the different spheres of scientific research or the technological application of science, or in education or the arts. Whatever view is taken of the exegetical question here raised, a man is what he is at least as much as a result of the fact that he is a farmer or a factory worker or an actor or a teacher, as of the fact that he is British or Indian or Chinese. Unless the mission can speak to him qua farmer or factory worker or

> actor or teacher, a large part of his existence will remain untouched by its message (Ibidem: 59).

Crossing the secular frontier is, unfortunately, no less fraught with complications than was the crossing of the geographical frontier. A great many United States-based missionary-sending agencies have, however, accepted the challenge of crossing the secular frontier and have begun to establish missions in the midst of human activity. As the majority of the world's population is engaged in subsistence farming, agricultural missions have naturally become a vital aspect of the Christian mission throughout the world. The acceptance and enthusiastic support of agricultural missions in the 1980s is, however, in vast contradistinction to the attitude that prevailed only fifty years ago when one of the early pioneers of the agricultural missions movement, Sam Higginbottom, struggled to make his now famous Allahabad Agricultural Institute an accepted part of the Christian mission in India. The question that loomed so large in those early years, and that continues to arise occasionally even today, was (and is): In view of the enormity of the task, might not the government be better equipped than mission agencies to undertake the task of rural uplift? Higginbottom's answer then, and the answer of a great many missionaries today, was (and is) a resounding "No!" In the case of India, the work of Christian missionaries in the fields of education,

medicine and social services had long preceded that of the government; missionaries were inherently better prepared then, according to Higginbottom, to introduce improved agricultural methods. Just as missionaries had pioneered in so many other areas, so too could they effectively pioneer in the field of agricultural assistance. Furthermore, missionaries would bring a spirit of dedication to their work that was normally lacking in the basic routine of government enterprise (Hess 1967: varied pages).

Higginbottom's predictions about the potential success of missionaries in the field of agricultural assistance have been borne out with the passage of time; for the overseas developmental activities of United States-based religious agencies have been singled out for special praise in countries all over the world. Christian missionaries have often been lauded, for instance, for the spirit of self-help and community participation that their programs engender; for the fact that they venture into remote areas largely untouched by other groups; and for the fact that they stay for more than just a few days or months and become friends to the people with whom they live and labor (Freeman 1968: 120). Christian missionaries operate in a way that is ideally suited for their involvement in agricultural assistance to the long neglected rural majority throughout the Third World.

Missionary activity in the field of agriculture has indeed begun to accelerate and will most likely continue to accelerate; for while government organizations have begun to take more responsibility for establishing health and educational institutions, the traditional "social" sphere of mission activities overseas, the need for work in the field of agriculture is still acute. Missionaries are among the most dedicated individuals seeking to find the solution to world hunger and poverty; and voluntary organizations, with greater flexibility of organization than government development agencies, have been able to devetail complementary functions into the type of multi-purpose projects that are so vitally important in agricultural assistance efforts (Ibidem: 121).

Missionary activity in some fields of endeavor will no doubt continue to be supplanted by the gradual secularization of development and aid projects in lands which have traditionally been mission territories; for "the time when the missionary was the only pillar of socio-economic development has passed (Reilly 1978: 17)." International organizations and government agencies have appeared on the scene "with technical and financial resources far beyond anything the churches could ever muster (Ibidem)," and scores of young people who formerly turned to the churches as missionaries are now turning to service organizations, such as the Peace Corps and VISTA,

as volunteers for service abroad. The "secularization" of development has undoubtedly caused a crisis in missionary circles. The foundation of much of traditional missionary activity has been shaken, and the missionary has had to adapt to these changes in the world's political and social order (Ibidem: 17-18). Doors to the more common forms of social involvement--medicine and education--are by no means closed to missionaries, but as these doors do begin to close in some countries, the missionaries will, as always, seek new avenues for service. Notable expansions in the agricultural assistance efforts of United States-based religious agencies attest to the sensitivity of missionary groups to the opening up of new avenues of service as they continue to reach out in a variety of ways to people in need.

AGRICULTURAL MISSIONARIES--WELCOMED IN A WORLD THAT IS "ANTI-MISSION"

While missionaries are welcomed in many countries around the world because of their numerous contributions in bygone eras, they are also shunned, and literally denied entrance, in a great many others. Indeed, open hostility toward missionary groups exists even in countries in which missionaries at one time lived and worked freely. Though the reasons vary, perhaps, from country to country, a logical explanation for much of the opposition to

missionary activity in the world today is clearly stated in the following excerpt from Christian Mission In India A Sociological Analysis.

> Because of the historical link between the spread of Christianity and the expansion of Western colonial power, Christian missions in many Asian and African countries have come to be regarded as the unwelcome legacy of a historical era which has now come to its close. 'Mission countries' which have won political independence are now engaged in an attempt towards wiping out all vestiges of Western imperialism wherever they can afford to do so. Christianity being considered as one aspect of Western civilization--Western imperialism in a religious garb--it is not surprising that the effort towards rebuilding a new, indigenous culture and civilization is partly directed against Christian missions and missionaries (Boel 1975: 1).

A key phrase in the above passage, at least for the agricultural missionary, is that many newly independent countries are wiping out Christian missions--one of the vestiges of Western imperialism--wherever they can afford to do so.

It is simply the case that the current need for agricultural assistance in most Third World countries is so acute that governments in many "anti-mission" countries are opening their doors to missionaries with agricultural skills, even while denying visas to others requesting entrance from the same mission agencies. The opportunities for service for those who have the requisite knowledge and skills are immense, and mission agencies are taking full advantage of this "officially" sanctioned avenue of service

as they seek entrance into countries that are not "open" to traditional missionary activity.

SUMMARY OF THE STUDY'S FINDINGS

The data collected and analyzed in this study, though not "earthshattering" in the sense of contributing to a major breakthrough in the field of agricultural assistance, does represent a significant addition to the body of knowledge with respect to the identification of factors that enhance the success of agricultural assistance activities, especially within the context of Christian missions. The major findings of the study will be briefly summarized in the following pages; the categories utilized to present the comments of questionnaire respondents will provide the framework for this summary section.

Language Ability

Language ability is definitely a key to project success.

1) Speaking a common language allows for clearer and more effective communication between project personnel and local community members.

2) When the language barrier is broken a host of other barriers that inhibit project success are also likely to be broken.

3) Having competency in the local language aids project personnel in gaining the trust, confidence and acceptance of community members.

4) Language ability is a key to cultural knowledge and understanding; the ability to communicate one-on-one opens the door to an understanding of the beliefs, values and perceptions of a people that would be difficult to acquire otherwise.

5) Langauge ability contributes to an increased level of job satisfaction on the part of project personnel; the morale of the entire staff is enhanced because of the benefits to the project that accrue when language ability is made a top priority.

6) If at all possible, mission agencies should provide formal language training for all long-term personnel and should encourage missionaries to continue the language learning process while on the mission field.

Long-term Personnel

Long-term personnel are essential in the staffing of an agricultural assistance project.

1) Only long-term personnel are in the project area long enough to establish relationships, gain trust and confidence, and become accepted and credible in the eyes of project participants.

2) Long-term personnel are able to attain a level of cultural understanding and adaptation that contributes significantly to project success.

3) Long-term personnel are able to attain a level of language compentency that facilitates communication between project personnel and project participants.

4) Long-term personnel are necessary to ensure project continuity; disruptions in the process of project implementation are largely alleviated through the continued presence in the local community of a core of long-term personnel.

5) Long-term personnel are needed to coordinate the work of short-term personnel who may not be aware of how the project has progressed and of what the long-term project goals are.

Short-term Personnel

Short-term personnel, though not able to achieve those things that only long-termers can because of their long-term nature, can contribute significantly to agricultural projects.

1) Short-term personnel are often able to provide expertise that is not know by, or is not available to, the long-term agriculturist.

2) Short-term personnel often bring freshness, vigor and optimism to the project, which serve to increase the morale of the long-term staff.

3) Because short-term personnel often provide their own support, they are able to lighten the load for long-termers without adding financial burden to the project.

4) By promoting the project upon their return home, short-term personnel may be instrumental in ensuring continued support for the project.

5) Because of their time on the mission field, some short-termers eventually make long-term commitments and are then able to make even more significant contributions to the developmental endeavors of their respective mission agencies.

Agricultural Specialists

Agricultural specialists are vital to the success of developmental endeavors aimed at improving the agricultural sector.

1) The agriculturist should be highly competent, but need not be narrowly professional; in fact, the agriculturist with a broad academic background and years of experience in the field of agriculture is, in many cases, preferable to the agriculturist who is highly trained in a particular aspect of agriculture but who lacks the ability

to work within a variety of circumstances that may not call specifically for his area of expertise.

2) The agriculturist "in charge" of the project, like all long-term personnel, must be willing to learn the language and culture of the local area.

3) The agriculturist must be patient and flexible in addressing the felt needs of the local community and in allowing community members to participate fully in the development process.

4) Whenever possible, the agriculturist should work alongside other staff members in an integrated program of rural development.

5) The agriculturist must strive to put his knowledge of agricultural theory into practical application in the particular locality to which he has been appointed.

6) The agriculturist need not know all the answers but should be willing to search for the answers by drawing upon all available sources of information, both inside and outside the project area.

Role of "Outsider"

Expatriates can function effectively as catalysts for change provided they come first as listeners and learners; they must always be primarily facilitators and enablers, assisting rather than merely directing the national staff

and project participants as they progress toward the achievement of project goals.

Role of Staff--National Training

Training of national staff personnel should be accorded top priority in order to increase the community's sense of project ownership and to provide for project sustainability by ensuring a smooth transition from "mission" to "national" control; "outside" project personnel should be continually seeking to "work themselves out of their jobs."

Local Community Involvement

Local community involvement is a prerequisite to project success; the probability that the benefits of the project will be sustainable is significantly increased when local community members have been active participants in the development process.

Self-help

The success of agricultural projects is largely dependent on the self-help initiatives it provides; nothing should be done for community members that they themselves can do.

Resource Commitments

To require resource commitments on the part of project participants is a key to project success.

1) Requiring resource commitments ensures local community involvement and the achievement of self-help.

2) Having to make resource commitments gives community members a sense of ownership and pride in the project which aids in achieving project sustainability.

3) Having a stake in the project increases the degree of responsibility on the part of project participants.

4) When community members are willing to contribute resources, this indicates that the project is meeting a felt need of the community--a key to project success.

5) The type and magnitude of the resource commitment are of secondary importance to the fact that community members are involved and do have a stake in the project.

Local Community Knowledge of Local Area, People and Needs

The chances of project success are significantly reduced when project personnel do not take the time to listen to and learn from local community members.

1) At least initially, the project must be directed toward meeting the felt needs of the community; only community members know what those needs are.

2) Consultation with local community members in the earliest stages of project design is important not only to identify but also to prioritize the felt needs of the community.

3) Local community members are a valuable source of information about the local area and the people that reside therein; they know, better than any "outsider" could ever surmise, why community members act and react in the way that they do.

Community Ownership of Project

It is of vital importance that the local community feel a sense of project ownership from the earliest stages of project design; if the project is to be of the self-help variety, if resource commitments are to be forthcoming and if project sustainability is to be achieved, community members must feel a sense of ownership and pride in the project.

Counterpart Training

Counterpart training is an essential ingredient of a successful agricultural program.

1) Counterpart training heightens the community's sense of project ownership.

2) Counterpart training prevents dependency on "outsiders" who may not always remain in the project area.

3) Counterpart training provides for a smooth transition of primarily "mission" to "national" control and thereby increases the chances of project sustainability.

Host Government Support

Though active involvement on the part of the host government may not be necessary (and may, in fact, be detrimental), the support of the host government is necessary and should be actively pursued; to establish and maintain a healthy relationship with host government officials/agencies is of vital importance to project success.

Host Government Input

In general, mission-related projects should not be dependent upon host government inputs.

1) The host government is rarely a reliable source of inputs, particularly in the sustainability stage of the project; since budgetary constraints and lack of trained personnel limit the ability of the government in carrying out its own development programs, "outside" agencies should not become dependent on government sources for their supply of inputs.

2) Allowing the host government to become actively involved through the provision of financial and personnel resources, assuming these are available and would be

willingly supplied, could lead to bureaucratic entanglements and, eventually, to domination of the project by the host government; loss of control could jeopardize the achievement of project objectives.

3) To keep the project operating on a self-help basis, with the local community feeling a sense of project ownership, often requires that mission personnel "shelter" the project from the influence of the government which may have national priorities that conflict with the achievement of small farmer development.

4) Though caution should be exercised in allowing the direct involvement of the host government through the provision of financial and personnel inputs, the possible benefits to an agricultural program that might be forthcoming through the utilization of other government inputs should be not be overlooked; the government, for instance, can often supply certain materials more readily and/or at a lower cost than possible through mission-related channels, and regional and national research centers funded and staffed by the host government can be invaluable in providing research findings.

Host Government--Complement Rather Than Compete

Agricultural projects conducted by "outside" agencies should seek to complement, rather than compete with, the

work of the host government in the field of agricultural assistance.

1) To avoid open hostility and to achieve a good working relationship with host government officials requires that mission-related personnel seek to support rather than supplant the agricultural programs of the host government.

2) Though efforts should be made to encourage and support the host government in all it is attemtping to do in the general interest of agricultural development, mission-related efforts should be limited primarily to areas and aspects of agricultural development that the government cannot or will not address; to duplicate the efforts of the host government would not only be viewed as an intrusion by the government but would also be an obvious waste of the limited resources of mission agencies.

Host Government--Negative Statements

The need for mission-related agricultural projects often exists primarily because of the failure of LDC governemnts to assume proper responsibility in the area of agricultural development.

1) Many LDC governments cannot be depended upon to carry out unassisted an effective program of development in the agricultural sector of the economy; unfulfilled promises abound even in those countries in which the

government has declared agricultural development a top priority.

2) Personnel involved in designing LDC government projects are normally far removed, both in terms of geographic location and mind set, from the community members who are to benefit from the projects; consequently, projects are often imposed upon people in a manner that precludes active community participation and the development of the community's sense of "project ownership."

3) Many government projects are "grandiose showpieces" based upon inappropriate Western technology; they are normally too complicated and too costly for local community members to successfully implement.

4) Vested interests on the part of government officials prevent development of the agricultural sector; government programs in Third World countries are, for instance, often "urban-biased" and therefore of little benefit to those in the rural sector.

5) Government support of agricultural research and extension is grossly insufficient in most LDCs; the lack of properly trained and motivated personnel is a major problem that plagues research and extension services throughout the Third World.

Attitudinal Hindrances To Project Success

Attitudinal hindrances to project success abound in rural communities throughout the Third World.

1) Lack of cooperation among community members is a significant hindrance to project success; development programs based on the cooperative efforts of project participants are not easily implemented in an environment of individualism, jealousy and/or distrust.

2) Communities governed by a massive array of superstitious beliefs are often unable to accept the changes that must accompany improvement in the agricultural sector; the practice of witchcraft, voodooism and sorcery and the prevalence of fetishism, animism and related forms of animal and nature worship impede the process of agricultural development in rural communities throughout the Third World.

3) Risk avoidance, though understandable in light of the risk constraint facing Third World farmers, is an obstacle to agricultural development that must be addressed in programs of agricultural assistance.

4) Paternalism has led to the emergence of a "hand-out mentality" among farmers in rural communities throughout the Third World; the dependency that has been created through paternalism makes projects of a self-help nature difficult to implement.

5) To perform manual labor is considered degrading in many LDCs, especially to those with "educated hands;" a negative attitude toward farming is even exhibited by persons trained in "agricultural" institutions who are often reluctant to return to their villages, preferring instead to seek government employment in the city.

6) Particular food customs and preferences often prevent the development of agricultural programs that could significantly improve the nutritional level of the community.

7) The attitude of fatalism is a significant deterrent to project success; self-help is difficult to achieve in communities where people live only for today, believing they are ruled by fate and have no control over their lives.

8) Prejudice between groups, stemming from differences in religion, nationality, culture, sex and social position, prevents cooperative efforts toward agricultural improvement in some rural communities.

9) Third World farmers are often bound by age-old traditions that hinder the process of agricultural development; those things that have traditionally afforded farmers prestige and status are often the very practices that impoverish them.

Addressing Attitudinal Factors

To give adequate attention to attitudinal factors from the earliest stages of project design is of vital importance to project success; the particular method for addressing attitudinal factors will, of course, vary from project to project according to the particular circumstances involved.

1) To recognize and to understand attitudinal hindrances to project success, project personnel must be knowledgeable about the local culture and must be able to communicate effectively with local community members; without language and cultural competency, one can only guess and theorize about how farmers will act and react.

2) By living and working alongside the farmer, project personnel (who are often highly educated) can demonstrate a positive attitude toward farming and rural life; as they teach and demonstrate the worth of land and the potential earnings that can come from farming, they help to reverse the attitude of contempt for manual labor that is so common in many LDCs, especially among the educated youth.

3) To rid rural communities of an attitude of dependency, outside change facilitators must be willing to endure the frustration of "sitting back and letting them do," even when failure appears to be imminent; from the

very beginning local community members must be made to feel that they are responsible for the project.

4) When prejudice between groups in a community prevents them from working together, it may be necessary to begin an agricultural program with projects that allow for a separation of the groups; to attempt to create a spirit of cooperation where one simply does not exist may actually be detrimental to project success.

5) Project personnel must be extremely sensitive, patient and flexible in communities governed by a massive array of superstitious beliefs; project goals must often be revised or even completely changed when religious or cultural taboos interfere with project implementation.

6) What is often described as stubbornness or an unwillingness to change is in many instances a rational response on the farmer's part in light of the risk constraint under which he must operate; project success will, therefore, be tremendously enhanced if a special effort is made to demonstrate the effectiveness of the new technologies/techniques to be introduced before pushing local community members to adopt them.

7) By helping people to believe in themselves and their own potential through encouragement, education and demonstration, project personnel can rid a community of a fatalistic attitude toward life which results in despair, an inability to see alternatives, and a lack of hope.

8) It is often best to work within the existing attitudinal framework, rather than attempting to change attitudes; when promoting agricultural development in a Muslim community, for instance, it would probably be best to find an alternative to a "pig" project even if such a project, barring the fact that it would be religiously offensive, could be successfully implemented in that particular locality.

9) Though tradition can hold a project back, it is imperative that project personnel discover the "whys" of the present situation before attempting to introduce innovations that might be justifiably rejected for reasons that might not be obvious to an "outsider."

10) In some communities the teaching of Christian principles can aid in changing attitudes that are detrimental to project success; if one believes that God created the earth and that men are his stewards in caring for his creation, it is more likely, for instance, that an individual will view neglect in the area of soil conservation as a violation of God's will that should not be tolerated in the local community.

Addressing Institutional Factors

The absence or scarcity of critical agricultural institutions is a major obtacle preventing small farmer development; as with attitudinal factors, institutional

factors must be addressed on a project by project basis, giving due consideration to the particular circumstances at hand.

1) Since most voluntary aid agencies have limited financial and personnel resources, much institution building will have to be left to international agencies and government organizations which are more capable of handling such massive undertakings; projects aimed at providing basic agricultural institutions--credit, marketing, transportation, storage, et cetera--should be undertaken by voluntary agencies only if they can be turned over to nationals within a reasonable period of time and do not require, therefore, a continuous utilization of scarce resources for their operation and maintenance.

2) Voluntary agencies involved in agricultural assistance should do all that they can, in light of their limitations, to encourage and support community members to utilize already existing institutions and to create, when necessary, institutions that are lacking in the project area.

3) Developing institutions that can be sustained by the local community, rather than merely importing Western institutions that tend to create a dependency on outside resources, is of vital importance.

Appropriate Technology

Choosing and applying appropriate technology is a key to project success.

1) Technology that is appropriate is technology that will continue to be used by project participants after outside change facilitators are no longer in the project area; any technology that becomes impractical or unacceptable in the eyes of local community members once the "project" has been terminated is probably not appropriate and may actually be detrimental in the long-run.

2) To be appropriate, technology must be affordable to project participants; if the cost of acquiring and utilizing technology requires a significant degree of subsidization during the process of project implementation, the technology may not be appropriate.

3) To be appropriate, technology must utilize, to the fullest extent possible, locally available resources; the creation of any dependency on "outside" resources must be avoided at all costs.

4) To be appropriate, technology must be simple enough to be understood and effectively used by project participants.

5) To be appropriate, technology must be maintainable and repairable by local community members; to introduce

technology that requires expatriate skills for servicing and/or is dependent upon spare parts that are not available locally is highly inappropriate and a tremendous waste of resources.

6) To be appropriate, technology must be tailored to the particular situation in which it is being applied; social, cultural, religious, psychological, political, economic and ecological, as well as biological, factors must be considered when deciding upon the type of technology to be utilized.

7) Appropriate technology does not necessarily mean adapted "western" technology; indigenous technology which may already be in use by the more progressive farmers in the project area could possibly be the best technology for that time and place.

Introducing Technology "Step-by-Step"

Caution must be exercised when introducing innovations; for innovations to be thoroughly understood and their benefits clearly observed, new technologies and techniques may require a gradual introduction--one step at a time rather than as a total package.

Capital Versus Labor Intensity

Due to the surplus of labor (and shortage of capital) in most Third World countries, appropriate

technology is often equated with labor intensive technology.

1) Labor, rather than capital, intensive technology is normally more available and affordable to the farmers in most Third World countries and is, therefore, usually more appropriate.

2) Self-help entails the utilization of locally available skills; the skills required in the use and maintenance of labor intensive technologies are more likely to exist in most rural communities than are those required for capital intensive technologies.

Demonstration

Of all of the methods that could possibly be utilized in introducing new technolgies/techniques into a project area, demonstration is by far the most effective.

1) On-farm demonstration, when properly conducted, is the most effective type of demonstration for encouraging farmer adoption of new agricultural practices; though model farm demonstrations may be impressive to a small subsistence farmer, it will more likely be the increased yield on a neighbor's field that will convince the farmer to risk innovation.

2) Convincing community leaders and the more progressive farmers in the area of project benefits is the first step toward establishing successful on-farm

demonstrations; the participation of these two groups, because of their influence on the community and their willingness and ability to risk innovation, respectively, should be sought in the earliest stages of project design.

3) Besides its usefulness in speeding farmer adoption of new agricultural practices, on-farm demonstration is a most effective means of ensuring local community participation in the process of project implementation; the monitoring of on-farm demonstrations by mission personnel allows for a continuing dialogue between project staff and participants, an oft cited key to project success.

Training and Extension

Whenever possible, local farmers should be trained to serve as extension agents; the training they receive should be of a practical nature rather than theoretical and should be conducted in the village, preferably on the farmer's own land so as to be appropriate in his own setting.

THE KEY--"ROLLED UP TROUSERS"

After some 120 plus pages of The Politics of World Hunger, Paul and Arthur Simon make the following admission:

> Like most discussions of development, my brief sketches fail to convey a sense of warmth for people. We can speak of "the problem" of hunger or "the problem" of poverty and in this way impersonalize them. . . . . .

> There is also a personal, local dimension missing from the examples that I mention. A host of small, undramatic efforts say more about real human development than elaborate national programs (Simon and Simon 1973: 126). . . . . .
> . . . . . .

Having been raised in a Protestant denomination that is highly mission oriented and having always been active in the mission programs of the local church, the researcher can recall on numerous occasions having had the opportunity to listen to "foreign" missionaries tell of their far away homes and of the people among whom they had chosen to live. Sitting in the pew for an hour (or more), looking at slides and listening to "stories" about Juan and Maria or Wong and Chin Lei was sometimes interesting and sometimes boring, largely dependent upon the degree of charisma of the speaker and the particular mood of the listener. Though no specific details of those presentations can be recalled, the researcher can, without hesitation, point out the common denominator of those missionary presentations--the "stories" about Juan and Maria or Wong and Chin Lei were <u>always</u> told, usually accompanied by slides picturing the missionary among a group of people in a church, in a classroom, in a clinic or out in the fields.

For boys and girls growing up in mission oriented churches, the foreign missionary often becomes somewhat of a "hero" or "heroine" in whose steps he or she would like to follow. For these children, dreams of becoming a

foreign missionary, especially in the first few days following a missionary presentation, are not uncommon--much like the dreams of young girls after watching their first beauty pageant. As the child grows into adulthood, however, the hero worship of childhood days begins to be replaced by a deep respect for the missionary, as those things that in a child's way of thinking were glamorous (living in a far away place and saving people from terrible diseases, et cetera) begin to be viewed with a realism that comes only with maturity.

The researcher, having long suspected that there is more to the foreign missionary than meets the eye, must admit to a strong admiration for the missionary--an admiration that has grown tremendously as a result of this study. Though feeling intuitively from the beginning of the study that the missionary is an ideal "agent" of development, the discovery of the following story several months into the study confirmed that belief in a way that nothing before or since has been able to do. Though rather lengthy, the story (which is true) will be quoted in its entirety.

> Last summer I visited a development area in one of the developing countries. It was at the height of the sowing season, and all the peasants were working hard in the fields. After a heavy watering, the fields turned into wide expanses of thick, heavy mud, but were ready to receive the seed. The peasants were struggling, moving heavily and slowly behind the oxen.

> On this trip, I wanted to learn and understand why the peasants refused to grow a new cereal that was suitable for the natural conditions and, in the opinion of experts, capable of making a considerable improvement in their economic situation. All attempts to introduce this crop had failed.
>
> I wanted to talk with some of the peasants. "They are all in the fields. They are busy sowing," said the director of the authority, who accompanied me. "Good," I said, "we will meet them while they are working." We stopped the car near a field where a peasant and his two sons were working behind their ploughs. A patch of land separated us. The director started shouting at them to leave their ploughs and come over to us. "Let's go to them," I suggested. I took off my shoes, rolled up my trousers and started walking through the mud. The director seemed startled but, after some hesitation, followed me. It was obvious that, for him, it was a new experience. We reached the edge of the field and had a long chat with the peasants.
>
> Sometime later we returned to the car, rinsed the mud off our feet, and continued on our way. After a thoughtful silence, the director turned to me: "In one conversation you managed to find out things which my men failed to discover after weeks of talks, surveys, and endless negotiations. Why? Is it because of the rolled up trousers?" he asked. I smiled (Weitz 1971: 246-247).

Upon reading this story, the researcher was immediately struck with the thought: "That's the key. Missionaries have 'rolled up trousers'--they go to the people wherever they are and they actually communicate with them." Suddenly the "stories" about Juan, Maria, Wong and Chin Lei began to take on new meaning. Indeed, a sense of warmth for people and a personal, local dimension--admittedly lacking in the Simon's discussion of development which is so characteristic of the majority of publications

in the field of development--comes through time after time in the presentations given by missionaries and in the agency publications that describe missionary endeavors around the world; for the "human" element, which is so often ignored in the development schemes of major donor agencies, is accorded top priority in the work of missionaries whose efforts are, by in large, "person-centered" rather than "project-centered."

"LITTLE PUBLICIZED AND UNSUNG," BUT A "HOPEFUL SIGN IN AN OFTEN GLOOMY WORLD"

With total overseas budgets that are often smaller than the financial allocation to a single project by a major governmental/private donor agency, United States-based missionary-sending agencies are often limited to developmental endeavors that appear miniscule in comparison. The efforts of agricultural missionaries have not, however, been in vain; for the "developmental" projects of United States-based religious agencies, though "little publicized and unsung," have been a "hopeful sign in an often gloomy world (Stamp 1977: Preface)." Indeed, the activities of voluntary agencies in the field of developmental assistance are not to be taken lightly; for they are increasingly attracting the attention of government planners and larger donor agencies all over the world. According to Elizabeth Stamp:

> The most successful agricultural development projects with which I am familiar were not planned in the capital city of the developing country, still less in that of a distant donor country, but were envisaged in country places by one or a few individuals who knew the local circumstances (Ibidem: Forward).

The projects that are "envisaged" by agricultural missionaries, who reside in "country places" and who are intimately familiar with "local circumstances," are, at least in the opinion of the researcher, among the most potentially successful projects being designed and implemented in Third World countries today. It is the sincere desire of the researcher that this study will stimulate further research into the agricultural assistance activities of United States-based missionary-sending agencies.

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APPENDIXES

APPENDIX A

PARTICIPATING MISSION AGENCIES ACCORDING TO QUESTIONNAIRE IDENTIFICATION LETTER

Agency A	AGENCY NAME:	Africa Inland Mission
	HEADQUARTERS:	Pearl River, New York
	ORGANIZED:	1895
Agency B	AGENCY NAME:	American Baptist Churches in the U.S.A., International Ministries
	HEADQUARTERS:	Valley Forge, Pennsylvania
	ORGANIZED:	1814
Agency C	AGENCY NAME:	American Lutheran Church, Division for World Mission and Inter-Church Cooperation
	HEADQUARTERS:	Minneapolis, Minnesota
	ORGANIZED:	1961
Agency D	AGENCY NAME:	Associated Reformed Presbyterian Church World Witness, the Board of Foreign Missions
	HEADQUARTERS:	Greenville, South Carolina
	ORGANIZED:	1839
Agency E	AGENCY NAME:	Christian Church (Disciples of Christ) Division of Overseas Ministries
	HEADQUARTERS:	Indianapolis, Indiana
	ORGANIZED:	1920
Agency F	AGENCY NAME:	Christian Reformed Board for World Missions
	HEADQUARTERS:	Grand Rapids, Michigan
	ORGANIZED:	1888
Agency G	AGENCY NAME:	Christian Reformed World Relief Committee
	HEADQUARTERS:	Grand Rapids, Michigan
	ORGANIZED:	1962
Agency I	AGENCY NAME:	Eastern Mennonite Board of Missions and Charities
	HEADQUARTERS:	Salunga, Pennsylvania
	ORGANIZED:	1914

Agency J	AGENCY NAME:	General Conference Mennonite Church, Commission on Overseas Mission
	HEADQUARTERS:	Newton, Kansas
	ORGANIZED:	1872
Agency K	AGENCY NAME:	Grace Mission, Inc.
	HEADQUARTERS:	Grand Rapids, Michigan
	ORGANIZED:	1939
Agency L	AGENCY NAME:	Latin America Mission, Inc.
	HEADQUARTERS:	Coral Gables, Florida
	ORGANIZED:	1921
Agency N	AGENCY NAME:	Missionary Church, Division of Overseas Ministries
	HEADQUARTERS:	Ft. Wayne, Indiana
	ORGANIZED:	1898
Agency O	AGENCY NAME:	National Baptist Convention U.S.A., Inc., Foreign Mission Board
	HEADQUARTERS:	Philadelphia, Pennsylvania
	ORGANIZED:	1880
Agency P	AGENCY NAME:	OMS International, Inc.
	HEADQUARTERS:	Greenwood, Indiana
	ORGANIZED:	1901
Agency Q	AGENCY NAME:	Presbyterian Church in the United States, Division of International Mission
	HEADQUARTERS:	Atlanta, Georgia
	ORGANIZED:	1861
Agency S	AGENCY NAME:	South America Mission, Inc.
	HEADQUARTERS:	Lake Worth, Florida
	ORGANIZED:	1914
Agency T	AGENCY NAME:	Southern Baptist Convention, Foreign Mission Board
	HEADQUARTERS:	Richmond, Virginia
	ORGANIZED:	1845
Agency U	AGENCY NAME:	Sudan Interior Mission, Inc.
	HEADQUARTERS:	Cedar Grove, New Jersey
	ORGANIZED:	1893

Agency V	AGENCY NAME:	United Church Board for World Ministries
	HEADQUARTERS:	New York, New York
	ORGANIZED:	1810
Agency W	AGENCY NAME:	United Presbyterian Church in the USA Program Agency
	HEADQUARTERS:	New York, New York
	ORGANIZED:	1837
Agency X	AGENCY NAME:	World Mission in Church and Society
	HEADQUARTERS:	New York, New York
	ORGANIZED:	1921
Agency Y	AGENCY NAME:	World Relief Corporation
	HEADQUARTERS:	Wheaton, Illinois
	ORGANIZED:	1945
Agency Z	AGENCY NAME:	Church of the Nazarene, General Board Department of World Missions
	HEADQUARTERS:	Kansas City, Missouri
	ORGANIZED:	1900
Agency AA	AGENCY NAME:	Mennonite Central Committee
	HEADQUARTERS:	Akron, Pennsylvania
	ORGANIZED:	1920
Agency BB	AGENCY NAME:	Summer Institute of Linguistics, Inc. (Associated with Wycliffe Bible Translators International, Inc.)
	HEADQUARTERS:	Huntingdon Beach, California
	ORGANIZED:	1935

APPENDIX B

GENERAL PROJECT INFORMATION ACCORDING TO

QUESTIONNAIRE IDENTIFICATION NUMBER

A - 2 Earl J. Anderson PROJECT NAME: Toglogo DATE: 1972- LOCATION: Kenya SERVES: 5,000 people in five projects POPULATION OF AREA: Nomadic--about four people per square mile OTHER ASSISTING AGENCIES: National Christian Council of Kenya; Food for the Hungry OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Nursery school

A - 3 Andre Fischer PROJECT NAME: AIC South Turkana Community Development Project DATE: 1976- LOCATION: Kenya SERVES: four centers along a fifteen mile stretch of river POPULATION OF AREA: 6,000-10,000 BENEFITS: 2,000 OTHER ASSISTING AGENCIES: TEAR Fund, U. K.; TEAR Fund, N. Z.; Kenya Freedom from Hunger Council; O. D. A. Britain; Numerous churches in U. K. and N. Z.; N. C. C. Kenya OTHER TYPES OF DEVELOPMENT ASSISTANCE: Adult literacy; Dispensary built; Primary schools; Technical training

A - 4 Ben Webster PROJECT NAME: South Turkana Agricultural Development Project DATE: 1976-1984 LOCATION: Lokon, Turkana, Kenya SERVES: 100 sq. miles POPULATION OF AREA: 8,000 BENEFITS: 1,500 adults plus children OTHER ASSISTING AGENCIES: TEAR Fund, England; Overseas Development Administration, U. K.; Kenya Freedom From Hunger Council; Agro Action, Germany; TEAR Fund, N. Z.; New Zealand Government OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical dispensary; Adult literacy; Nursery school; Primary school; Craft training

A - 5 A. G. Arensen PROJECT NAME: VSG Latuka Agriculture Project DATE: 1980-1985 LOCATION: Torit District, Eastern Equatoria Province, Equatoria Region, Sudan SERVES: eight villages surrounded by other villages scattered over 5,000 sq. miles POPULATION OF AREA: 100,000 BENEFITS: 100,000 OTHER ASSISTING AGENCIES: Agriculture Extension Office, Torit (Sudan government); Norwegian Church Aid OTHER TYPES OF DEVELOPMENT ASSISTANCE: Primary health care; Jobs skill training; Assistance in primary education

A - 8 H. E. Anderson PROJECT NAME: A. I. C. Hurri Hills Project DATE: 1976-1985 LOCATION: Kenya SERVES: 9,000 sq. miles POPULATION OF AREA: 20,000 OTHER ASSISTING AGENCIES: Lutheran World Relief; CIDA; World Concern; Ford Foundation; IPAL--UNESCO OTHER TYPES OF DEVELOPMENT ASSISTANCE: Adult education; Water development; First aid; Machinery maintenance; Forrestry; Building materials and techniques

B - 1 Harvey L. Polley PROJECT NAME: Centre Agricole de Lusekele DATE: 1975- LOCATION: About 200 miles east of Kinshasa, Zaire (in Bandunu region) SERVES: 5,000 sq. miles POPULATION OF AREA: 250,000 BENEFITS: Approximately 10,000 OTHER ASSISTING AGENCIES: American Baptist Foreign Mission Society; Canadian Baptist Overseas Mission Board; CEPLANUT (1984); OXFAM (provided landrover) OTHER TYPES OF DEVELOPMENT ASSISTANCE: Two-year primary school

B - 2 Burton E. Weidman PROJECT NAME: Rural Development Program DATE: 1970-indefinite LOCATION: Bengal, Bihar, and Orissa, India SERVES: seventy-three villages indirectly (well projects in ten) POPULATION OF AREA: 20,000 BENEFITS: 3,000 OTHER ASSISTING AGENCIES: A.F.P.R.O. (advice and training programs); V.I.T.A. (advice only) OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical

B - 3 Rupert Nelson PROJECT NAME: Food Production and Small Scale Irrigation DATES: 1977-1986 LOCATION: Chiang Mai, Thailand (Headquarters) SERVES: 100,000 sq. kilometers POPULATION OF AREA: 300,000 BENEFITS: 70,000 OTHER ASSISTING AGENCIES: Swedish Economic Development Authority OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Literacy; Primary and secondary education; Student hostels; Scholarship program

B - 5 Duane Binkley PROJECT NAME: Irrigation Project of Karen Baptist Churches DATES: 1980-1985 LOCATION: North Eastern Thailand POPULATION OF AREA: 200,000 OTHER ASSISTING AGENCIES: Swedish International Development Authority; Board International Ministries, American Baptist Churches, Karen Baptist Convention; Baptist Union of Sweden OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Schools

C - 1 Jim Lorenzen PROJECT NAME: UMN (United Mission to Nepal) Rural Development Center DATE: 1981-indefinite LOCATION: Western Nepal SERVES: 140 villages POPULATION OF AREA: 24,000

C - 2 Edward Carter PROJECT NAME: Fokpayono DATES: 1970- LOCATION: Garoua-Boulai, Cameroon SERVES: 100 kilometers on either side of Garoua-Boulai POPULATION OF AREA: 30,000 BENEFITS: 600-800 OTHER ASSISTING AGENCIES: Lutheran World Federation; American Lutheran Church OTHER TYPES OF DEVELOPMENT ASSISTANCE: Hospital; Orphanage; Primary school; Bible school

C - 3 John N. Soloninka PROJECT NAME: EELS--Women's Garden Coop DATES: 1981-1984 LOCATION: Senegal SERVES: five sq. miles (five villages) POPULATION OF AREA: 5,000 BENEFITS: 300

C - 4 Richard White PROJECT NAME: Rural Development Project DATE: 1978-1985 LOCATION: Cameroon SERVES: 10,000 sq. miles (250 villages) POPULATION OF AREA: 200,000 BENEFITS: 75,000 OTHER ASSISTING AGENCIES: Lutheran World Federation OTHER TYPES OF DEVELOPMENT ASSISTANCE: Water and building improvements; Women's work

C - 5 David A. Lange PROJECT NAME: Yangpela Didiman (Lutheran Economic Service) DATE: 1983-1985 LOCATION: Biliau, Papua New Guinea SERVES: 100 sq. miles (100 villages) POPULATION OF AREA: 20,000 BENEFITS: 500 OTHER ASSISTING AGENCIES: P. N. G. Government; Department of Primary Industry OTHER TYPES OF DEVELOPMENT ASSISTANCE: Film ministry

C - 6 David Simonson PROJECT NAME: Village Environmental Improvement Project DATE: 1981-1984 LOCATION: Singeda, Tanzania SERVES: six villages POPULATION OF AREA: 12,000 BENEFITS: 12,000 OTHER ASSISTING AGENCIES: USAID OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Literacy; Primary education

D - 1 Joop Neve PROJECT NAME: Doctorwala Agriculture Extension Centre DATE: 1970- LOCATION: Pakistan SERVES: five villages and surrounding area POPULATION OF AREA: 5,000 BENEFITS: 350 farmers OTHER ASSISTING AGENCIES: Bureau of the Reformed Churches, Holland; Associate Reformed Presbyterian Church in U.S.A. OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical services (clinics, vaccination programs); Public Health (sanitation)

F - 1 Richard Stehouwer PROJECT NAME: Christian Extension Ministries DATE: 1982-1987 (expatriate personnel) -1992 (funding) LOCATION: Grand Bassa County, Liberia SERVES: 4,000 sq. miles (numerous villages) POPULATION OF AREA: 150,000 BENEFITS: 200 (directly) 5,000 (indirectly) OTHER ASSISTING AGENCIES: Christian Education Foundation of Liberia OTHER TYPES OF DEVELOPMENT ASSISTANCE: Theological Education by Extension; Rural Health; Literacy

F - 2 David Dykgraaf PROJECT NAME: N K S T Christian Agricultural Co-operatives DATE: 1980- LOCATION: Gboko, Benue State, Nigeria SERVES: 4,000 sq. miles (200 villages) POPULATION OF AREA: 20,000 BENEFITS: 5,000 per year OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Secondary schools

G - 1 Bulus U. Ali PROJECT NAME: Christian Rural Development DATE: 1969- LOCATION: Southern Gongola State, Nigeria SERVES: 12,000 sq. miles POPULATION OF AREA: 1,000,000 BENEFITS: 1,000 annually OTHER ASSISTING AGENCIES: CRWRC; CIDA; CRCN OTHER TYPES OF DEVELOPMENT ASSISTANCE: Water development (in the near future)

G - 4 Rick DeGraaf PROJECT NAME: Agricultural Development Project, CRWRC Bangladesh DATE: 1975-1987 LOCATION: Bogra District, Bangladesh SERVES: 1,125 sq. miles (about 300 villages) POPULATION OF AREA: 1,649,250 BENEFITS: 60,500 OTHER ASSISTING AGENCIES: Canadian International Development Agency; Bangladesh Agricultural Research Institute; Rice Research Institution; Agricultural Development Agencies in Bangladesh OTHER TYPES OF DEVELOPMENT ASSISTANCE: Women's health and nutrition training; Sanitation; Literacy; Kitchen garden and co-ops; Landless co-op development

G - 5 Greg Geleynse PROJECT NAME: St. Andrews High School DATE: 1982-1984 LOCATION: Wesley, Dominica, W. I. SERVES: NE part of Dominica (about 6 villages) POPULATION OF AREA: 15,000 OTHER ASSISTING AGENCIES: Heifer Project International; U.M.C.O.R.E.; Holstun Conference of the United Methodist Church (East Tennessee)

G - 6 Jim Boldenow LOCATION: Central America SERVES: 17,000 sq. miles BENEFITS: 17,000 families OTHER ASSISTING AGENCIES: CEPAD; CEDEN; Caravanes; Inglescia Pesrpiateriana OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health; Literacy

G - 7 Jim Zylstra PROJECT NAME: CRWRC Haiti--Central Plateau DATE: 1976- LOCATION: Central Plateau of Haiti SERVES: 150 sq. miles (20 communities) POPULATION OF AREA: 75,000 BENEFITS: 50,000 OTHER ASSISTING AGENCIES: CIDA; Missionary Church Association OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical

G - 8 Nelson Dacanay and Ivan Dekam PROJECT NAME: Bayawas Income Generation Project DATE: 1979-1986 LOCATION: Bayawas, Urbiztondo, Pangasinan, Philippines SERVES: Two villages POPULATION OF AREA: 5,000 BENEFITS: 600 families over a 5-year period OTHER TYPES OF DEVELOPMENT ASSISTANCE: Self-help loans to start small businesses

G - 9 Thomas Post PROJECT NAME: Comite Evangelico de Desarallo Rural DATE: 1980-1986 LOCATION: Oaxaca Central Valley and Mixteca Baja of Oaxaca, Mexico SERVES: 1,500 sq. miles (twenty villages) POPULATION OF AREA: 20,000 BENEFITS: 250 families (in 1983-1984) OTHER ASSISTING AGENCIES: Heifer Project International; World Vision of Mexico; World Neighbors; ECHO (Educational Concerns and Health Organization); Alfalit International; National Presbyterian Church of Mexico OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health education

G -10 Joel Zwier PROJECT NAME: CEDEN Agricultural Program LOCATION: Honduras SERVES: about fifty villages POPULATION OF AREA: 15,000 BENEFITS: 6,500 OTHER ASSISTING AGENCIES: ICCO; Church World Service; Lutheran World Relief; CRWRC OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health; Water; Literacy; Leadership training

I - 1 Leon Ressler PROJECT NAME: Ogwedhi Sigawa Community Development Project DATE: 1979-1984 LOCATION: Border of Rift Valley and South Ngonza Provinces in Western Kenya SERVES: fifteen mile radius POPULATION OF AREA: 20,000 BENEFITS: 2,000 families OTHER ASSISTING AGENCIES: World Vision International OTHER TYPES OF DEVELOPMENT ASSISTANCE: Provided funds for building a primary school run by Ministry of Education; Ombo Hospital in Migori provides a mobile clinic to community one day a week

I - 2 Harold F. Miller DATE: 1960-indefinite LOCATION: Kenya OTHER ASSISTING AGENCIES: Euro Action ACORD; EEC; E. A. Governments; USAID OTHER TYPES OF DEVELOPMENT ASSISTANCE: Education; Animal husbandry; Silvaculture

I - 3 James Shenk LOCATION: Mozambique

J - 1 John Bohn PROJECT NAME: "Translating Faith into Action Program" of the African Federal Church Council DATE: 1982- LOCATION: All Districts of Lesotho SERVES: Independent churches in all districts of Lesotho OTHER ASSISTING AGENCIES: Various host government departments OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy; Sanitation; Food preservation; Bookkeeping

J - 3 Dennis Rempel PROJECT NAME: Technical, Agricultural and Biblical Resource and Research Center DATE: 1979- LOCATION: Orooara, Upper Volta (Burkina Faso) SERVES: 7,000 sq. kilometers POPULATION OF AREA: 100,000 BENEFITS: Hopefully all 100,000

J - 4 Jim Campbell PROJECT NAME: Service du Developpement Agriale LOCATION: Region duKasi et Bandundu, Zaire SERVES: Area about the size of Ohio POPULATION OF AREA: 500,000 BENEFITS: 120 families (possibly 500 by next year) OTHER ASSISTING AGENCIES: IITA; ICRASAT; CIAT; Educational Concerns and Health Organization OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Primary and secondary education; Garage services; MAF services

J - 5 Arnold Harder (contact person) PROJECT NAME: Service de Develloppement Agricole (SEDA) DATE: 1965- LOCATION: Nyonga, Zaire SERVES: 500 km. x 400 km. square POPULATION OF AREA: 100,000 BENEFITS: 20,000 OTHER ASSISTING AGENCIES: Mennonite Central Committee OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Primary and secondary schools; Women's work; Public health

J - 6 Philip Dyck PROJECT NAME: Farm Program of Mission Unit LOCATION: San Antonio Valley of Chihuahua State, Mexico SERVES: Four municipalities

J - 7 Fremont A. Regier PROJECT NAME: Selebi-Pikwe Horticulture Extention Project DATE: 1977-1987 LOCATION: Botswana SERVES: One major city, several smaller villages in 30 kilometer radius POPULATION OF AREA: 25,000 BENEFITS: 25 vegetable producer families and numerous consumers OTHER ASSISTING AGENCIES: Botswana Christian Council; Selebi-Pikwe Urban Industrial Mission; Ministry of Agriculture, Botswana

L - 1 Harry Lightner (contact person) PROJECT NAME: Agricultural Development DATE: 1974-1983 LOCATION: Northern Zone of Costa Rica SERVES: Three villages POPULATION OF AREA: 4,000 BENEFITS: 20 families OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical services

L - 2 Donald Longworth (contact person) LOCATION: Costa Rica

L - 3 Ronald Denhartog LOCATION: Sincelejo, Colombia

N - 1 Donald A. Danz PROJECT NAME: Missionary Church Association DATE: 1982- LOCATION: Central Haiti OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical (rural clinic and training)

O - 1 Josephine Q. Minter LOCATION: Monrovia, Liberia

P - 1 Robert O. Sutherland PROJECT NAME: Sinai Bible Institute LOCATION: Carboncillo, Saraguro, Ecuador SERVES: Farm program of Institute for teaching (800 acres) POPULATION OF AREA: 10,000

Q - 1 Scott A. Smith PROJECT NAME: Christian Health and Agricultural Project DATE: 1978- LOCATION: West side of Bramaputra River, Central Bangladesh SERVES: Eight villages (25 sq. miles) POPULATION OF AREA: 40,000 BENEFITS: 1,000 OTHER ASSISTING AGENCIES: Government OTHER TYPES OF DEVELOPMENT ASSISTANCE: Day clinic; Adult education; Health extension with poor farming families

Q - 2 John Haspel PROJECT NAME: Boma Project DATE: 1980-1983 (ended due to civil unrest) LOCATION: Boma, Sudan SERVES: 2,000 sq. miles (forty to fifty villages) POPULATION OF AREA: 20,000 OTHER ASSISTING AGENCIES: ACROSS; World Vision; Presbyterian Church, Sudan; Presbyterian Church, USA OTHER TYPES OF DEVELOPMENT ASSISTANCE: Water development; Literacy; Medical, Refugee assistance

Q - 3 Doug and Ruth Welch PROJECT NAME: Centre Chretien de Sante'--(Ag. Dept.) DATE: 1981- LOCATION: Mbuji Mayi, Zaire SERVES: 10 villages (should reach 20) POPULATION OF AREA: 5,000 BENEFITS: 500 directly (more indirectly) OTHER ASSISTING AGENCIES: Orange Presbytery; PMKO (Projet Mais Kasai Oriental); ProNaM (Projet National de Manioc) OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical consultation; Family planning; Vaccination program; Nutrition center; Community development in city (family gardens, sanitation)

Q - 5 Craig A. Meisner PROJECT NAME: Christian Health and Agriculture Project Ahladiper DATE: 1979-1989 LOCATION: Bangladesh SERVES: Five sq. miles (5 villages) POPULATION OF AREA: 8-10,000 BENEFITS: 1600 OTHER ASSISTING AGENCIES: Bangladesh government (family planning, immunizations, etc.); Agriculture Development Agencies, Bangladesh OTHER TYPES OF DEVELOPMENT ASSISTANCE: Out-patient clinics; Adult functional education; Health extension; Group development

S - 1 Winfield L. Buckman DATE: 1981- LOCATION: Maicro and Riohacha areas, Dept. of the Guajira, Colombia POPULATION OF AREA: 60,000+ BENEFITS: 20,000 OTHER ASSISTING AGENCIES: INDERENA; ICA; Department of Agriculture of the Guajira OTHER TYPES OF DEVELOPMENT ASSISTANCE: Bilingual educational program for the first four primary grades

S - 3 Frank Zajicek (contact person) PROJECT NAME: Eastern Bolivian Agricultural Development Project DATE: 1983-1988 LOCATION: Provinces of Sandoval and Eastern Chiquitano, Bolivia SERVES: 20,000 sq. miles (fifteen villages) POPULATION OF AREA: 20,000 BENEFITS: 8,000 OTHER ASSISTING AGENCIES: Cordecruz (government); World Vision OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical (minor); Literacy

T - 1 Ken Bowie PROJECT NAME: Irrigation Canal DATE: 1982-1984 LOCATION: Matara, Peru SERVES: Two villages (800 acres will be irrigated) POPULATION OF AREA: 350 BENEFITS: 350 OTHER ASSISTING AGENCIES: Cooperacion Popular (Government); Ministry of Agriculture; Local Community; Local Government; Local Businessmen OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy, Ag capacitacion classes; Public health; Family planning; Seed and fertilizer distribution programs

T - 2 Delos D. Brown PROJECT NAME: B.A.P.T.I.S.T. (Baptist Agricultural Program Training in Science and Technology) DATE: 1973- LOCATION: Petauke District, Zambia OTHER ASSISTING AGENCIES: Mt. McKuld Experiment Station, Lusaka; Katapold Experiment Station, Caipata; Provincial Experiment Comm.; District and Provincial Agriculture Offices; Petauke Associations of Baptist Churches; District Governor OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Literacy; Disaster relief

T - 3 Dale Carter PROJECT NAME: The Transformed Valley Project DATE: 1982-1986 LOCATION: Sitio-Parnagua, Piaui, Brazil SERVES: 800 sq. miles POPULATION OF AREA: 3,000 BENEFITS: 500 OTHER ASSISTING AGENCIES: Instituto Batista Correntino OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health service; Pre-school through adult education

T - 4 Larry Cox PROJECT NAME: Sanwabo Development Project DATE: 1981-1985 LOCATION: Eastern Upper Volta (Burkina Faso) SERVES: Eight villages POPULATION OF AREA: 8,000 BENEFITS: 1,800 OTHER ASSISTING AGENCIES: Tennessee Baptist Convention OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy, Public health; Nutrition Education, Water Resources

T - 5 A. Kent Depee PROJECT NAME: Sito Project LOCATION: Corrente, Piaui, Brazil

T - 7 Rollie Ennis PROJECT NAME: Kasulu Baptist Agriculture Project DATE: 1980- LOCATION: Kasulu, Tanzania SERVES: twenty sq. miles (fifteen villages) POPULATION OF AREA: 60,000 OTHER ASSISTING AGENCIES: World Hunger and Relief

T - 8 Horace W. and Sally Ann Fite PROJECT NAME: Expanding Agricultural Training Program DATE: 1982- LOCATION: Central Brazil SERVES: State of Goias in Central Brazil (including many towns and villages) OTHER ASSISTING AGENCIES: Local county agent OTHER TYPES OF DEVELOPMENT ASSISTANCE: Primary school

T - 9 E. Gary Harthcock PROJECT NAME: Antigua Agricultural Ministry DATE: 1976-1984 LOCATION: Antigua, West Indies SERVES: 108 sq. miles (over fifty villages) POPULATION OF AREA: 73,000 BENEFITS: 1,000 OTHER ASSISTING AGENCIES: Antigua Ministry of Agriculture OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical/dental clinics

T -10 Crawford Keese PROJECT NAME: Mukoma Baptist DATE: 1983- LOCATION: Central Rwanda SERVES: five churches (membership of 7,000) POPULATION OF AREA: 50,000 BENEFITS: 10,000 OTHER TYPIES OF DEVELOPMENT ASSISTANCE: Medical

T -11 Douglas M. Knapp PROJECT NAME: Baptist Agricultural Project DATE: 1964-1989 LOCATION: Kyela, Tanzania SERVES: 1000 sq. miles POPULATION OF AREA: 250,000 BENEFITS: 100,000

T -12 Kurt Lawrence PROJECT NAME: Thailand Baptist Mission Agricultural Mission Work DATE: 1982- LOCATION: East Central Thailand OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Refugee work

T -13 James M. Philpot PROJECT NAME: General Agricultural Missions/Mexico DATE: 1969- LOCATION: South Mexico

T -14 Fred Sorrells DATE: 1984- LOCATION: Burundi SERVES: fifty sq. miles OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy; Water development; Nutrition education

T -16 T. A. Waddill PROJECT NAME: Kalwa Farm, Baptist Mission of Zambia DATE: 1973- LOCATION: Serenje District of Zambia SERVES: fifty mile radius POPULATION OF AREA: 100,000 BENEFITS: 20,000

T -17 G. Thomas Wade, Jr. PROJECT NAME: Baptist Agri Missions--Botswana DATE: 1976-1984 LOCATION: Northern Botswana/Chobect Ngamiland Districts SERVES: 25,000 sq. miles (six villages) POPULATION OF AREA: 35,000 BENEFITS: 2,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Dental services

T -18 Ron Baker DATE: 1985- LOCATION: Indonesia

T -20 Ronald D. Bodenhamer LOCATION: Kenya

T -21 Donald W. Bolds LOCATION: Niger Republic

T -23 W. Jerome Ethredge PROJECT NAME: Togo Upper Ogou (Region) Baptist Project DATE: 1984-1987 LOCATION: East Mono Area (Moretan County), Togo SERVES: 400 sq. miles (fifty villages) POPULATION OF AREA: 28,000 BENEFITS: 28,000 OTHER ASSISTING AGENCIES: Togo Government; CONGAT OTHER TYPES OF DEVELOPMENT ASSISTANCE: Mobile clinic; Health education; Literacy

T -25 Calvin Fox PROJECT NAME: Calinon Community Development DATE: 1978-1988 LOCATION: Calinon District, Davao City, Philippines SERVES: 600 sq. miles (50 villages) POPULATION OF AREA: 250,000 BENEFITS: Members of Christian Farmers Club OTHER TYPES OF DEVELOPMENT ASSISTANCE: Limited medical clinics; Small literacy program

T -26 Darrel E. Garner PROJECT NAME: Baptist Agricultural Station DATE: 1971- LOCATION: Near Balaka, Malawi SERVES: 625 sq. miles (forty villages) POPULATION OF AREA: 17,000 BENEFITS: 6,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Emergency medical transportation; Nutrition; Home Economics

T -27 Lynn Groce PROJECT NAME: Menz Community Development Project DATE: 1970-1977 LOCATION: Sloa Province, Ethiopia SERVES: 2400 sq. miles POPULATION OF AREA: 60,000-80,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Road and Water Development; Handcraft

T -28 Homer and Sharon Hawthorne LOCATION: Brazil

T -30 Billy L. Oliver PROJECT NAME: Seminary Farm and Experimental Farm DATE: 1978- LOCATION: Arusha, Tanzania, E. Africa SERVES: fifteen sq. miles (four villages) POPULATION OF AREA: 15,000 BENEFITS: 2,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Outpatient clinic on campus; Literacy

T -31 Oran L. Roberts LOCATION: Upper Volta (Burkina Faso)

T -33 A. C. Sutton, Jr. (contact person) LOCATION: Brazil

T -34 Glen Sutton LOCATION: Upper Volta (Burkina Faso) PROJECT NAME: Tiebele DATE: 1985-1990 LOCATION: Upper Volta (Burkina Faso) SERVES: twenty sq. miles (sixteen villages) POPULATION OF AREA: 80,000 BENEFITS: 20,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy; Public health

T -35 J. Darryl Turner, Jr. PROJECT NAME: Sembrador DATE: 1983- LOCATION: Mercedes, Uruguay SERVES: two sq. miles POPULATION OF AREA: 30,000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy

T -36 James P. Vaughn (contact person) LOCATION: Senegal

T -37 Harold R. Watson PROJECT NAME: Mindanao Baptist Rural Life Center DATE: 1971- LOCATION: Mindanao, Philippines SERVES: Whole island of Mindanao POPULATION OF AREA: 10 million BENEFITS: 1 million

T -39 John W. Hebb, Jr. OTHER ASSISTING AGENCIES: World Hunger Fund; World Hunger Foundation; Agriculture Missions Foundation OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical services

U - 1 Les Winslow (contact person) PROJECT NAME: Kale Hiwot Church Development Project DATE: 1977-1990 LOCATION: Shewa Province, Ethiopia SERVES: 120 km. x 75 km. POPULATION OF AREA: 2,500,000 BENEFITS: 40,000 OTHER ASSISTING AGENCIES: CIDRA (Canada); TEAR Fund (England); ICCO (Denmark); World Vision OTHER TYPES OF DEVELOPMENT ASSISTANCE: Family development; Community development; Medical clinic; Spring capping

U -1a Janet Winch PROJECT NAME: `K . . . Horticulture' DATE: 1982-1987 LOCATION: Southern Ethiopia POPULATION OF AREA: 760,000 BENEFITS: Potentially all OTHER TYPES OF DEVELOPMENT ASSISTANCE: Literacy; Hygiene

U - 5 Friedrich Windisch PROJECT NAME: ECWA (Evangelical Churches of West Africa) Rural Development Programme DATE: 1976- LOCATION: Nigeria SERVES: 3,800 sq. miles (sixteen local church councils) POPULATION OF AREA: 100,000 BENEFITS: 1000 OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Literacy

U - 6 Mark Larson (contact person) LOCATION : Northern Nigeria SERVES: 800 rural churches BENEFITS: 16,000 rural families OTHER ASSISTING AGENCIES: Canadian International Development Agency OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Literacy

U - 7 J. A. Burt PROJECT NAME: ECWA Rural Development, Bauchi/Borno DATE: 1979- LOCATION: Zalanga, Nigeria SERVES: 400,000 sq. miles (Bauchi Church District and Borno Church District) POPULATION OF AREA: five million BENEFITS: 115 congregations (15,000 individuals) OTHER TYPES OF DEVELOPMENT ASSISTANCE: Dispensary

V - 1 Dick V. Fagan PROJECT NAME: Philippine Rural Life Center DATE: 1965- LOCATION: Philippines SERVES: The total country BENEFITS: 500,000 OTHER ASSISTING AGENCIES: UCBWM; Heifer Project; United Church of Christ, Philippines; United Methodist Church, Philippines; Philippine Episcopal Church; Ministry of Agriculture OTHER TYPES OF DEVELOPMENT ASSISTANCE: Family Planning; Nutrition Education

V - 2 James Winter LOCATION: Harare, Zimbabwe

V - 3 Ben Skaggs PROJECT NAME: Projets Techniques et Sociaux DATE: 1975- LOCATION: Hiheatro, Togo SERVES: forty-five villages POPULATION OF AREA: 800,000 BENEFITS: 200,000 OTHER ASSISTING AGENCIES: CODEL OTHER TYPES OF DEVELOPMENT ASSISTANCE: Women's development; Well-drilling

W - 1 R. Lee Reed and Mary Reed PROJECT NAME: Thal Project LOCATION: Pakistan SERVES: Eleven villages POPULATION OF AREA: 10,000 OTHER ASSISTING AGENCIES: Church World Service; Bread for the World; Canadian Government; Family Planning Association of Pakistan; Pakistan Government OTHER TYPES OF DEVELOPMENT ASSISTANCE: Public health education; Assistance to government and private schools; Adult literacy; Road building

W - 2 Irv Lotze (contact person) LOCATION: Pakistan

W - 5 Charles W. Samford LOCATION: Malawi

W - 6 John C. Beran PROJECT NAME: Rural Ministries Program, Union Theological Seminary DATE: 1963- LOCATION: Philippines SERVES: 1,260 communities (potential) POPULATION OF AREA: Approximately 1,764,000 (252,000 families) BENEFITS: 50,400 families (potential) OTHER ASSISTING AGENCIES: Philippine Rural Life Center; Presbyterian Church (USA); Union Church of Manila; World Concern; Philippine Christian University; United Methodist Church

X - 1 Y. Justice and B. Z. Roberts PROJECT NAME: Rural Development Institute, Cuttington University College DATE: 1978- LOCATION: Suacoco, Bong County, Liberia SERVES: 38,000 sq. miles POPULATION OF AREA: 1,151,000+ OTHER ASSISTING AGENCIES: USAID; Episcopol Church; Government of Liberia; Peace Corps; Near East Foundation; EEC; Heifer Project International; California Polytechnic State University

Y - 1 Moise Napon PROJECT NAME: Tougan Integrated Development DATE: 1980-1984 LOCATION: Upper Volta (Burkina Faso) SERVES: eighteen villages POPULATION OF AREA: 597,100 OTHER ASSISTING AGENCIES: World Relief; CIDA OTHER TYPES OF DEVELOPMENT ASSISTANCE: Reforestation (food for work); Wells

Y - 2 Philip J. Baur III (contact person) PROJECT NAME: Soriadi Development DATE: 1980-1983 LOCATION: NFO, Kenya SERVES: 500+ acres BENEFITS: 200 families OTHER ASSISTING AGENCIES: Africa Inland Church; World Relief Corporation OTHER TYPES OF DEVELOPMENT ASSISTANCE: Clinic; Primary and secondary school

Y - 4 Juliet A. Jimeno and Fred Bugayong PROJECT NAME: Project Gamtabeng (B'laan Development Project) DATE: 1980-1985 LOCATION: Gen. Santos City, South Cotabato, Philippines SERVES: five villages thirty to forty kms. from city) POPULATION OF AREA: 320 families BENEFITS: 250-300 family heads OTHER ASSISTING AGENCIES: World Relief Corporation; Ministry of Human Settlements; Ministry of Agriculture OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical Services; Livelihood projects; Water development; Leadership training

Y - 5 James Gustafson LOCATION: Udon Thani, Thailand

Y - 6 Tom Hawk and Wilmer Dagen PROJECT NAME: Nicaragnan Miskito Refugee DATE: 1981-1986 LOCATION: Mocoron, Honduras SERVES: thirty villages POPULATION OF AREA: 20,000 Hondurans and 16,000 refugees BENEFITS: 16,000 OTHER ASSISTING AGENCIES: CEDAN; Morovian Church; TEAR Fund, Holland OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health program, Education program; Credit program; Social promotion; Marketing

Z - 2 Steve Weber

AA- 1 Paul E. Myers PROJECT NAME: Noakhali/Corrilla Food Production DATE: 1974- LOCATION: Southern Bangladesh SERVES: two districts POPULATION OF AREA: five to six million BENEFITS: 1 million OTHER TYPES OF DEVELOPMENT ASSISTANCE: Family Planning; Employment generation projects

AA- 2 Robert G. Unruh PROJECT NAME: Servicio Agropecuario Chaco Central DATE: 1947- LOCATION: Chaco, Paraguay SERVES: 15,000 sq. miles (200 villages) POPULATION OF AREA: 25,000 BENEFITS: 15,000 OTHER ASSISTING AGENCIES: CIDA, Canada; IMO, Europe; ICCO, Europe; MEDA, USA; MEDA, Europe OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical; Schools

BB- 1 Robert Wilkenson PROJECT NAME: Chiquitano Bee Project DATE: 1979-1983 LOCATION: Bolivia SERVES: five villages POPULATION OF AREA: 500 BENEFITS: sixty OTHER ASSISTING AGENCIES: M.A.P. International OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical assistance; Literacy training; Primary education

BB- 3 John and A. Hostetler PROJECT NAME: Guajajara Rice Project DATE: 1975-1980 LOCATION: Maranhao, Brazil SERVES: twenty mile radius (six villages) POPULATION OF AREA: 550 BENEFITS: 550 (more or less) OTHER ASSISTING AGENCIES: World Neighbors OTHER TYPES OF DEVELOPMENT ASSISTANCE: Government operated school; Literacy; Medical

BB- 5 Herbert L Brussow PROJECT NAME: Bonaire C. D. Resource Center DATE: 1966- LOCATION: Puerto Lleras, Meta, Colombia OTHER ASSISTING AGENCIES: World Neighbors; SENA; ICA OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health; Teacher training

BB- 6 Stan McMillen PROJECT NAME: Chola Widows Vegetable Project DATE: 1983-1984 LOCATION: Chola, San Miguel Us pantan Quiche, Guatemala SERVES: Aldea of Chola (ten sq. miles) POPULATION OF AREA: 2,000 BENEFITS: fifteen OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical clinic (selling medicines at cost plus ten percent to pay clinic worker)

BB- 7 Paul Townsend LOCATION: Ixil Triangle, Quiche, Guatemala POPULATION OF AREA: 28,000

BB- 9 Herbert T. Fuqua PROJECT NAME: Summer Institute of Linguistics Cattle Program DATE: 1953-1989 LOCATION: Amazon Basin (Upper) Pucallpa, Peru SERVES: Eastern half of Peru (cattle in eighteen tribes) OTHER ASSISTING AGENCIES: Heifer Project International; USAID; World Neighbors; Ministry of Education, Peru; Ministry of Agriculture, Peru OTHER TYPES OF DEVELOPMENT ASSISTANCE: Health; Education

BB-10 Stephen L. Mann PROJECT NAME: Amahuaca Literacy and Community Development Program DATE: 1983-1989 LOCATION: Southeastern Peruvian jungle, Peru SERVES: five main communities and an eighty mile stretch of river with scattered population BENEFITS: 5,000 OTHER ASSISTING AGENCIES: Peruvian government (Ministries of Education and Agriculture); Canadian International Development Agency (book publishing) OTHER TYPES OF DEVELOPMENT ASSISTANCE: Medical services; Educational materials; Teacher training; Laison with government

APPENDIX C

LOCATION AND NUMBER OF PROJECTS

AFRICA		LATIN AMERICA		ASIA	
Country	#	Country	#	Country	#
Botswana	2	Antigua	1	Bangladesh	4
Burkina Faso	5	Bolivia	2	India	1
Burundi	1	Brazil	6	Indonesia	1
Cameroon	2	Colombia	3	Nepal	1
Ethiopia	3	Costa Rica	3	Pakistan	3
Kenya	8	Dominica	1	Papua New Guinea	1
Lesotho	1	Ecuador	1	Philippines	6
Liberia	3	Guatemala	2	Thailand	4
Malawi	2	Haiti	2		
Mozambique	1	Honduras	2		
Niger Republic	1	Mexico	4		
Nigeria	5	Paraguay	3		
Rwanda	1	Peru	1		
Senegal	2	Uruguay	1		
Sudan	2				
Tanzania	4				
Togo	2				
Zaire	4				
Zambia	2				
Zimbabwe	1				

APPENDIX D

A PERSONAL INTERVIEW WITH JOHN CHEYNE AND FRED SORRELLS

Mullinax: Could you briefly describe the structure of your mission board and how you fit into that structure?

Cheyne: Certainly. We have eight administrative areas of the world with an Area Director over each of those areas. Then, we have the Functional Ministries that work across those eight areas. I am the Senior Consultant for Human Needs, which would take in everything related to physical human need. So whether you're talking about agriculture, medical work, hunger/disaster response, or social ministries--all of these would fall under that one umbrella. I have two consultants who work with me at the staff level, and we have field consultants who work with us.

Mullinax: So if someone feels like they want some kind of project started, they contact you?

Cheyne: That's right. They would relate to our office, and we would relate to them. Now, the administrative part of that project would work through the Area Director, but the designing, the planning, the evaluation for funding, et cetera would come through our office.

Mullinax: Do you send agency people over to these project sites to check things out?

Cheyne: It depends upon the size of the project. If its a major project, one of our consultants will normally go to the field prior to the actual starting of the project. Normally we would visit the projects. For instance, we have one in Zimbabwe that I have visited every year since its inception. The same thing is true with the big Tennessee--Upper Volta Project.

Mullinax: So agency personnel would evaluate the agricultural programs?

Cheyne: We monitor and, ultimately, the evaluation would be left up to the mission itself. The missionaries are required to send us an annual

report. In the larger projects, we receive a report every six months.

Mullinax: Do the projects originate from agency headquarters or do they originate from the missionaries in the field?

Cheyne: All of our projects would originate on the field. I might be a catalyst in going to a field to suggest that they begin looking into certain areas of need, but the request would actually initiate from the field.

Mullinax: Approximately how many Human Needs projects are currently in progress? And could you give me some idea about the amount of funding involved?

Cheyne: Last year we had 246 projects in 48 different countries. We appropriated $8.5 million for those projects. None of that is government money. As a matter of fact, where we would differ from the funding of relief agencies is that none of our administrative staff at home and none of our administrative staff on the field (which includes our missionary force) would be paid for out of those project funds; 100% of the $8.5 million went directly into the projects themselves.

Mullinax: So out of the total Foreign Mission Board funds, your department would be allocated a certain amount?

Cheyne: No. No. All of the funds we receive are designated funds from special gifts. We have no allocated funds at all, except for the fact that my office (all of our administration) is paid for out of our regular budget and our missionary personnel are paid for out of our regular budget. But the project funding is special gifts. Period.

Mullinax: So when you speak of $8.5 million dollars, all of that was above and beyond the Cooperative Program and the Lottie Moon Christmas Offering?

Cheyne: Absolutely.

Mullinax: To get somewhat of a perspective, how long has agricultural assistance been a part of Southern

Baptist work overseas? Is it a relatively new thing?

Cheyne: Oh, no. It's existed since the beginning. I can't recall the year our first "agriculturist" was appointed, but it would go back forty or fifty years at least. Right now, I think we have sixty-two agriculturists. That does not count veterinarians. It also does not include missionaries whose assignment may be something else but whose background is in agriculture, and they, therefore, are also becoming involved in agricultural work.

Mullinax: Has there been more of an emphasis on agricultural assistance in recent years?

Cheyne: Oh, certainly. There has been a tremendous acceleration in the last twenty years or so.

Mullinax: I understand that Southern Baptists require that their missionaries know the language of the country to which they are appointed.

Cheyne: That's correct.

Mullinax: Does that apply only to long-term personnel?

Cheyne: That does refer to our "career" missionaries, yes. But we would hope that even our journeymen, who are two-year appointees, would pick up some language even though its not a requirement in most cases.

Mullinax: You don't provide any kind of formal language training for short-term personnel?

Cheyne: We would provide a limited amount of training for the journeymen in those situations in which language becomes a premium, but more than likely the two-year assignment is an English-speaking kind of assignment that does not really require another language.

Mullinax: But for the long-term personnel, it is a definite requirement . . .

Cheyne: For the long-term missionary, it very definitely is--even to the point that a missionary cannot become a voting member of the mission until he's completed a certain level of language

competency. By the way, when we talk about language competency we're not just talking about the ability to verbalize, we're talking about a cultural competency. We have a very high anticipation of entering into a culture of which language is only a part. So the understanding of that culture anthropologically, of the people, of literally entering into and being aware and sensitive to the structure of that society, the implications of certain customs, et cetera--all of these things are extremely important.

Mullinax: Are career missionaries given that sort of a background before they go into the field or is this something that they just kind of pick up?

Cheyne: It's definitely a combination. Much is learned after arriving on the field. We do, however, have an eight-week orientation in which every missionary going to a new country signs a contract saying that they will complete a study of the country to which they are going, and then while they're in language study overseas, there's also an emphasis upon cultural competency.

[Entrance of Fred Sorrells, career missionary to Burundi. Introductions are made.]

Cheyne: In Fred's case, we sent him to France to learn French and then sent him to Burundi to learn Kirundi, so he has two languages that he's got to be competent in. And for Fred that's . . . [everyone laughs]

Mullinax: So when you talk about language ability, you really mean that the missionary is going to know the local language and not just the national language?

Cheyne: Oh, definitely.

Mullinax: The necessity of a long-term person in the project area seemed to be a major point of emphasis in the responses I received from missionaries. What is your view with regard . . .

Cheyne: I don't know of any project that we've ever ever entered into anywhere in the world that has been based on the 100 percent use of short-term

personnel. All of our projects are based on the presence of a career missionary working in the context of the local community with nationals.

Mullinax: How many expatriates are normally involved in the agricultural assistance efforts of Southern Baptists?

Cheyne: Most of our projects are coordinated by one long-term expatriate. In some of our larger projects, we would bring in consultation, say an engineer or a specialist in water or something like this to initiate phases of the project. But even in bringing in outside consultation, part of our purpose would be to train the nationals to be able to do those very things.

Mullinax: So short-termers are primarily seen as individuals who can provide expertise in certain areas? Several of the missionaries who responded to my questionnaire seemed to indicate that some short-termers actually do more harm than good. Many felt that the short-termers were not very effective because they lack the ability to communicate in the local language, they have little understanding of the culture, and they take up too much of the long-termers' time. What has been your experience with the use of short-term personnel?

Cheyne: I think a lot of what you mentioned is very true. In the sending of short-term people into the projects, we are very concerned that they have a thorough orientation about these very things. The tendency of the short-termer is to go over and to do "his thing" in the way he's always done it. Very few short-termers without appropriate orientation would be sensitive, for instance, to appropriate technology, unless we're talking about someone who happens to have a real understanding of that in the first place. Therefore, short-termers can create problems simply because they have a tendency to come on so strong as to overwhelm the national by wanting to do what they want to do without being sensitive to the local situation. On the other hand, I think we have used short-termers most effectively. We had over 6,000 go over last year, not all in special needs projects but also in evangelism and other types of projects.

Sorrells: I think the effectiveness of the short-termer depends upon the type of preparation they're given, their understanding of what they're going to be doing, and the skills that they have. Basically, they've got to do their "homework" before coming to the field.

Mullinax: They've got to know what the project is all about and how they fit in.

Cheyne: Exactly. Let me give you an illustration. In the project in Upper Volta, a major part of the project was to help the community to build a dam. The short-termers wanted us to bring in big bulldozers and earthmovers, which from the American viewpoint would have been by far the most efficient way to build that dam. We came back to say, "No. We want it to be labor intensive. When its all done, we want the people to be able to say `this is our dam and not the Southern Baptists' dam.'" We didn't want the community to feel that the dam was something that had been imported, because if it ever broke or was damaged they could say: "You fix it. You did it;" but if it was theirs, if they participated and bought into it from the earliest stages--this is part of that community involvement--then they would be able not only to maintain that dam, but they would always be able to say that this was "our" project not "their" project. This "our-ownership" concept in any project, however big or small, is tremendously important.

Mullinax: Could you describe some of what you do in the early stages of project design?

Cheyne: Oh, certainly. If you've got a little piece of paper . . . let me give you an idea of how we go about assessing needs and identifying problems in the earliest phases of project planning. First of all, needs assessment and problem identification will involve three different viewpoints which can be illustrated by a diagram composed of three different circles. The first circle we refer to as the local community, and within that circle we would attempt to describe needs and problems from the perception of the local community. Needs assessment, it should be emphasized, must always be accompanied by problem identification . . . because if you're

talking about need, it may be for a tractor, it may be for a clinic, it may be for this or that and the next thing, but if you're talking about the problem, then you are identifying the cause of the need. What, though, is the community's perception of the problem? How do they see it?

The second circle represents the perception of the problem from the expatriate's or missionary's viewpoint. What does he perceive to be the real problem? Well now, he's obviously going to be looking at different things from a completely different perspective, so that what he identifies as the problem will not necessarily coincide with what the local community has identified. The expatriate, however, may be able to understand the problem even more sensitively than the community because he may understand, for instance, that the problem comes from polluted water, whereas they may only understand that they've got diarrhea. So those two things have to be brought together.

You then have a third circle which we identify as the government. The government's perception of need in that community is, of course, likely to come from a completely different set of dynamics. It will come from what they need to publish, what they need to tell the world--that this is part of their five-year program, for instance; it may be window dressing; they may never plan to do it; it may be necessary as part of their budgetary support to support a farmer extension agent in that area, and so forth.

Finally, we would analyze these three circles, and we would see that there are areas in which they all overlap. We would then tend to say, "Alright, priority-wise, let's begin to hone in on this area of need because it is one on which we all have a common perception." Now, on the other hand, we may not, because of extraneous reasons (the dynamics of the situation of a drought, for instance) be able to deal with those problems right away. Furthermore, we may have to identify something that is not long-range, but that is short-range and trust-building to gain the confidence and support of the community and to show that we are in fact going to do something. For instance, if this, Fred, were a cattle breeding program that was

going to take five years (that's very long in the perception of Third World people), the community might not feel that the expatriate is really doing something even though he has brought in a high bred Holstein cow or something. They may not be able to perceive that. You may have to look over here [pointing to intersection of the circles] where there's commonality between the local community and the expatriate, between the local community and the government, or maybe even between the expatriate and the government. The latter is, of course, the worst scenario, but you may have to deal with that over there.

Mullinax: So how do you go about doing this? Do you just go into an area and start talking to people? You don't just go in with some big project and . . .

Cheyne: No. No.

Mullinax: You're just there to begin with and by listening to the people . . .

Cheyne: Oh, certainly. And another thing, you must identify the leadership in your community. When I talk about leadership, however, I'm not necessarily talking about the elected or selected leadership, but the natural leadership of a community. Find out who it is that the people listen to, and then listen to the same person. This is terribly important, whether you're in a rural setting or in an urban setting. Where are they getting their sense of direction from? Who's speaking the loudest to them?

By the way, even when you have a male-oriented society, there usually will be a very strong woman personality who is a leader in the community and must be listened to. I had a very interesting experience down with the Kekchi Indians in Honduras not long ago. I called a group together. The women sat on one side and the men sat on the other side. I began raising some questions about how they perceived their problems, but rather than talking about needs, I asked the man who seemed to be the obvious leader to tell me something about the history of his people and how they had survived. Every

once in a while, he would turn to one particular woman and talk to her. She would answer and then he would relate to me what she had said to him. This continued for quite some time. Even though the woman was not allowed to communicate to me because of their societal structure, it soon became obvious to me that she, rather than the man, was the primary source of much of the community's wisdom.

Well ultimately, I identified that they wanted a well. My approach to it, however, was not to talk about our digging them a well, but if they had the equipment and so forth, if they had the ability to drill the well, how would they maintain it? Well, they left me for the moment. They got themselves into a little huddle, and then they talked back and forth about this problem that I had provoked about maintaining a well. After a while they came back and said that they would like to have a person that would be trained to maintain the well. I said, "Oh, that sounds wonderful. How would you pay him?" They went back into their little huddle again. So I kept throwing problems at them, and they solved those problems and came up with the concepts; by the time they got finished, they recognized that this was their well, these were their problems, and these were the ways that they were going to solve those problems. So by asking appropriate questions, I led them to the very things that I would have suggested to them in the first place.

Mullinax: What if they had come up with something that you would not have suggested?

Cheyne: Fine. Fine. It's still theirs. Yes, it may be less than the most efficient solution, but if it's theirs, it's better than what I'm going to suggest to them.

Mullinax: Let me go back to an earlier discussion for a moment and ask this: Who would actually "direct" the project? I have heard so much about the use of lay volunteers in mission work today. Would a short-termer ever be the director of a Southern Baptist agricultural program?

Cheyne: The project may be directed by the missionary. The project may more likely be directed by a national, using the missionary only as a resource contact person. Now the short-termers, as we see them, would be used only for special assignments to do those things that a national either is not capable of doing because of lack of training and experience or needs to be trained to do as part of the project. We would rely on short-termers as much as we could or felt wise, but they would never be the backbone of our projects. We would always be relying upon the nationals and that missionary who, though as inobtrusive as possible, is perhaps the primary person to stimulate and act as the catalyst to keep the project going.

Mullinax: Do you tend to have much of a problem with staff continuity?

Cheyne: There are sometimes problems. When career missionaries come home on furlough, for instance, they have to be covered in some way. If there are no new appointees that can effectively fill in for a career missionary, we would usually attempt to find a one year volunteer couple. Sometimes, if necessary, we would even consider assigning a journeyman. It can create a problem with continuity to a certain extent depending on the local situation and the local community involved. But it is not likely, however, that the career missionary would ever be gone for more than a year, because that's really the maximum furlough time.

Mullinax: Does the missionary leaving on furlough meet with the "interim" missionary to discuss the local situation, project plans, and so forth? Is the transition period coordinated in such a way that the project does not suffer from a lack of continuity?

Cheyne: We would try to coordinate as much as possible. In Fred's case--he's just come home on furlough--we did plan a month's overlap with the short-term couple filling in for the Sorrells.

Mullinax: So you do attempt to make the transition as smooth as possible.

Sorrells: Definitely. Like in our situation, we were supposed to come home in May, but because our replacement was delayed, we agreed to stay an extra month.

Mullinax: These are things that I really couldn't pick up from the questionnaires. You wonder, you know, if these are just thrown together things or if there is a lot of planning involved. Do you try to ensure that there's going to be continuity or do you just do the best you can?

Sorrells: You do a lot of planning and then you do the best you can.

Cheyne: Yes. Definitely.

Mullinax: So some of both would be . . .

Cheyne: Well, of course, it has to be . . . but we are very planning oriented in what we do. For instance, our missions are required to have a basic plan in which they would have their priority concerns spelled out for the entire mission for the next five years. They would have specific goals for this year, and they would have action plans spelling out those goals for each year. I work under the same principle in my office. For instance, I already have my priority concerns worked out for 1990. I have the goals under that already worked out, and I have specific action plans already worked out through the end of 1986. So I know precisely what I'm trying to accomplish, and this same kind of planning concept--planning by objectives--is what we would be doing on our mission field.

Mullinax: Let me move on to the role of the local community. We have already touched upon some of the basic concepts, such as the importance of community "ownership" of the project. To ensure community ownership you would seek to involve local community members in the earliest stages of project design?

Cheyne: That certainly is an ideal. I wish I could say it always happened in every project. Unfortunately, it doesn't. Let's be realistic. I think there are times that a missionary would simply see a need and he would move faster than

the people are capable of moving in meeting that need. You might want to elaborate on that a bit more, Fred, but certainly it is best to involve the community as early as possible.

Sorrells: I think it depends on how comfortable the missionary feels with the local language and the local culture. Obviously, someone who can't really speak the language and doesn't have a real grasp of the situation, probably is not going to be able to achieve community involvement.

Mullinax: So language ability is of the essence. A missionary who doesn't have the ability to communicate with the people in their language will not have the confidence to . . .

Cheyne: By and large that goes both ways. It is very difficult for the national to have a tremendous amount of confidence in the missionary who doesn't communicate to them in their language. I had a national come up to me one time and ask me this question: "Why doesn't missionary so and so love us?" I replied, "I know he loves you. He's a very dedicated person and . . ." At this point they interrupted declaring, "No, he doesn't love us!" After talking with the people further, I discovered that the unwillingness of the missionary to learn their language had given the community the impression that the expatriate did not really care for them.

Mullinax: Besides being able to communicate in the local language, what else is a necessary ingredient of project success?

Cheyne: Something that we strongly emphasize to our missionaries is that they undertake a very careful and complete resource analysis. The resource analysis, we emphasize, should be done for the purpose of helping the local community to be aware of their resources so that they will not feel that success hinges on external resources. I definitely believe that the relative success of any project would almost be in direct proportion to the amount of external resources that are used in relationship to the local resources that are used--that is, the

larger the dependency on external resources, the less the possibility of project success.

Mullinax: How important is community involvement through personal resource commitment? Is it necessary to project success that community members make a commitment to contribute labor, material, or financial resources?

Cheyne: Resource commitment is important, but let's go beyond the obvious--the labor, the material, the money, etc. I would say: "Let's go back and discover the historic ways or systems of accomplishing things, and rather than go around those and give them new systems and ways of accomplishing things, let's build on those historic ways." These are survivors that we're talking about . . . and the customary ways--the extended family and the relationship that a father would have to his children, etc.--are resources that you would want to use to the maximum in the project concept, so that you're not throwing out things that might not be apparent to the casual observer. This is where your short-termers could not be effective; they would never be able to percieve these things. This is where it would take a strong cultural understanding to be able to look into that setting and be able to see these things.

Sorrells: Getting the tools that you need as an outsider--language ability, cultural understanding, et cetera takes time. This is not easy for an American who wants to have something to "show" for his first assignment overseas. After all, we've got to bring some slides home. This, unfortunately, is where we're coming from.

Mullinax: You hate to come home and say: "I have spent the past two years just getting to know the situation." It sounds like you haven't done anything.

Sorrells: To a certain degree, we've got to produce. We need to produce. On the other hand, there is a need to study and analyze and do your resource analysis and so forth.

Cheyne: We work also on something we call the 20 - 80 principle: Very often twenty percent of your activity can accomplish eighty percent of your

goals. You need to prioritize as to those things which are most significant in the mind of the people to be able to accomplish the whole. If you can discover those aspects of the project in its design, the whole project will move much more smoothly.

Mullinax: Let me backtrack for just a moment. We were talking ealier about personal resource commitments on the part of project participants. Is any one type of resource commitment more effective . . .

Cheyne: I think the key word is participation. The specific type of resource commitment (labor, financial, or material) is not the important thing. There may be a person over here on the periphery, for instance, who because of age or poverty or other things like that simply cannot give in the same way as others in the community, but if that person has had a real sense of participation in the project, I think that is the key.

Mullinax: I've read on several occasions that it is not good to subsidize farmers--to give things away and so forth. What has been your experience . . .

Sorrells: You must always ask yourself: Is the project going to create self-sufficiency or is it going to create dependency? Our whole idea is to design the project and work within the context of creating self-sufficiency.

Cheyne: An essential part of the evaluation of a project, in my opinion, is to include the question: Has the project created self-sustaining activity? In other words, does the local community see the project concept as one that they themselves would want to continue to pursue and maintain? It is so vitally important that a water development project be evaluated, for instance, not just in terms of how many wells have been dug, but rather on the basis of whether or not the people involved have seen the vision of what clean water can do for their community and understand how it applies to both nutrition and other aspects of health care. It is essential that they move beyond just having the water.

Mullinax: So it is possible that you could have an "outsider" come in who would actually design the whole project. He could even implement the whole project. He could get out there and dig the well himself.

Cheyne: Yes.

Mullinax: But that's not going to be a lasting thing. Once the person leaves, then it all falls apart.

Sorrells: Look at the thousands of tractors lying idle in Africa today. No way could they ever be maintained. No way was self-sufficiency a consideration in the importation of those tractors.

Cheyne: So much of the USAID-type projects have been this way. They've been top-down things, creating a tremendous infrastructure at the top and then hoping that somehow this would trickle down to the peasant farmer. Unfortunately, it never does. It just becomes self-perpetuating in terms of that infrastructure. Only in recent years have the larger governments begun to recognize that they have got to set aside a certain portion of all of their aid funding for what you might call "peasant-level" kinds of projects.

Let me go back to an earlier point and talk a little more about subsidy, because it is a very difficult problem. On the one hand, you've got an enormous amount of funding that is coming from Americans, whether it comes from guilt or the fact that some people are simply very sincerely concerned and want to do everything they can to help. Last year they gave us $7.2 million in special gifts. At the end of May this year, they've already given us $5.6 million. It looks like we may get over $19 million this year. Now, I tell my good friend Fred that we've got $19 million coming in this year. We want you to find some very effective means of utilizing these funds. How can he design a project that is going to accomplish the goal of utilizing that money in an effective way that won't just be a give-away; that won't just deal with the immediate crisis but will deal with the underlying causes; and that will keep all of these lovely development principles in

mind while he's in the process of doing it . . . and doing it quickly?

What we have always attempted to do in our development work overseas is to discover those kinds of things that can help to create the foundation, the structure, the basis, that will not at once create a dependency on our continually doing the same thing. And so, whereby we might provide for a building (once the building's there, the building's there--you don't have to worry about something further like that), we might be more hesitant in providing a tractor that they are going to have to maintain, unless the system itself will generate enough training and funding to maintain that tractor.

Mullinax: So the provision of a tractor would be a waste of mission resources?

Cheyne: That, and much more. It may create a negative response ultimately when that tractor breaks down and the people are thrown back upon the old ways. So, in most projects, we would not get involved in inappropriate technology to start with.

Sorrells: It's a real stuggle that you have . . .

Cheyne: It is.

Sorrells: wanting to produce. Take Brother John here. Folks are going to get on his case if the funds he's been given are not used. And here I am in a rural area of Burundi, trying to have a clear conscious with myself and the community I'm working with on that end.

Cheyne: Let me throw something else into the hopper here . . . because we come in from the perception of American agriculture which is very sophisticated today. Let me illustrate with Ray Eitelman in West Africa. The temptation for Ray was to create a model farm and demonstrate to the whole community what they could accomplish if they did things right. The "model farm," you see, always appears to be a good approach to introducing innovations; unfortunately, we have found by practice overseas in the Third World that it is almost inevitably doomed to failure. It just does not work. Now why doesn't it work? Number

one, because you're doing it, you're a white man, and you're different than we are. Number two, it'll work over there where you are, but it won't work over here where I am. And you could go on and elaborate on these things that are rather obvious.

This is what Ray did. He went out to these pagan chiefs in a community where the women did all of the farming with a little short-handled hoe. They broke up the soil and broadcast the seed. There was no cultivation. No irrigation. Nothing. What came up, came up. So Ray said to the chiefs: "If you will divide your property in half--maybe five acres--I will demonstrate with you on half of it . . . and you do the other half like you've always done it and let's see what the difference is." Now the first thing Ray did was to get out there himself with a short-handled hoe, instead of having a woman do it. He helped them to contour the land and dig it up in rows instead of just breaking the soil. He introduced fertilizers (primarily organic rather than chemical) to them for the first time. He helped them to dig a well. He provided the funding to case the well so it wouldn't cave in, but the community did the labor. He helped them to understand a little bit about trickle irrigation where they could use a certain amount of water even in the dry season. He introduced certain types of seed to them that they weren't used to using but that produced better than the seeds that they had. He helped them to build a silo that would store their grain because they were losing thirty-five to fifty percent of it due to poor storage techniques. At the end of the very first year, the farmers had increased their crop yield 125% and had saved 100% of it.

After two years Ray began introducing animal traction. The radical part of that was that in introducing animal traction, he also introduced the concept--you'll forgive him for this--that women aren't bright enough to control the animal; that it takes a man to do this; and that this was, therefore, a man's job rather than a woman's. So suddenly there was a reversal of the role, and the man was out there plowing the field instead of the woman. Now that took patience and understanding of a culture to be

able to do that. You don't just demonstrate that. You work inside the culture and begin to build.

The community is slowly moving on to where they may use mechanical plows in the future. But that's a growth thing. It's not something Ray introduced in the beginning. So you see, the dynamics of what has happened here is that he has dealt with all of these principles that we've been talking about. The community is buying into it--they're participating. By the way, part of Ray's principle was this: If we are successful the first year, you will take half of your profit and help your neighbor to do the same thing I taught you to do. And so he began to replicate those little farms all over the area. In his first three years in the field, Ray developed twelve of these farms, which is quite remarkable.

Mullinax: How does a missionary know what should be introduced in his area in the way of new varieties, fertilizers, and so forth? Do you do any research of your own or do you rely upon information coming out of the national and international research agencies?

Sorrells: If there is not a lot of research being done, then you might have to do some yourself. The critical thing, though, is to get out and find out what is being done. Don't go duplicating and spending a lot of your time doing something somebody else has already done. In my situation, instead of importing potato stock, setting up a research station and finding out which varieties would do best, I went to a man that I had made contact with by going to the Ministry of Agriculture--to their research component. As it turned out, this fellow had come up with some varities that he thought might have good potential in our area, but he didn't have any contacts to work with. There are no experiment stations in our area. So I agreed to secure a limited supply from him and take them out to the farmers. Since potatoes are already being produced in our area, I was somewhat confident that the people would be willing to give the new variety a try. As it turned out, the farmers were very eager to participate; their "traditional" potato yields had been rather

minimal due to disease. I said to each farmer who agreed to participate: "Okay, now. I want you to set aside two equal portions of land. On one portion I want you to plant the new variety, and on the other I want you to continue to plant your old variety. If this new variety does work, you'll probably want to keep planting it. You save some seed for yourself, but you're going to give about three-quarters of it back into the program so it can be distributed to others." It worked beautifully. I have a slide I showed this morning. They got, from the same amount of land on which they planted their local variety, two big baskets [pointing to two huge waste containers in the room for comparison] of healthy potatoes. Other farmers in the community readily accepted the new variety after they saw it growing under their conditions. They were automatically sold because they could say, "Hey, there's Joe. He's my neighbor. If he can do it, I can do it!"

I can't stress enough the importance of making contacts. I have more work to do than I could ever hope to do, so I have to capitalize on any information that I can get from whatever source. And too, the people are so frustrated in these national research centers. They're doing a lot of work at the research stations, but they can't get out to the farmers. That's where I fit in. I'm not going out and trying to set up my own research station, but I'll take what is developed in the government research stations out to the small farms and give them feedback. This is exactly what I'm doing with the potatoes. I've met with this potato researcher many times. He's wanting to know what that small farmer's thinking, but he can't speak Kirundi. So what does he do? He uses me. And together, we're making a difference.

Cheyne: I have a tendency to feel, and Fred, maybe you can help me here . . . I may not be accurate in this, but government research has a tendency, in my opinion, to lend itself more toward cash crops than it does toward food crops.

Mullinax: That is changing somewhat now with the emphasis on the small farmer.

Sorrells: The bottom line when you're looking from the government's perspective is that they want to do that which will increase their revenue and their country's holding of foreign exchange. So quite often they have focused on cash crops, that could more likely be exported, rather than on food crops that might be of more benefit at the community level.

Mullinax: So you're saying, then, that it may not prove to be very fruitful to go to the national research unit for research findings that would be of use in projects aimed at the small subsistence farmer?

Sorrells: It depends. Like you indicated earlier, a lot of donor agencies are now saying: "Look, we want to help the poorest of the poor;" and so they are tying their funding to food-type research, which is good. This is how I got the help with the potatoes, although probably eighty-five percent of the research budget for agriculture in Burundi goes to coffee.

Mullinax: What should an "agricultural" missionary be? Should he have a PhD in agriculture, or should he be "broadly" educated with experience in agriculture?

Cheyne: Suppose you take a man whose trained in animal husbandry and send him to Burundi where you may need primary emphasis on horticulture or soils or something like this. You may find that that individual is not terribly effective, even though he may be a highly trained agriculturist, because he's not in his area of speciality. So my personal opinion is that if you have a person with a broad background and previous experience in agriculture (where he's been out there getting his hands dirty), you're going to have a much better missionary than you will with somebody who may be in forestry, for instance, and highly trained with a Masters or PhD in forestry, but who doesn't know the first thing about cattle. On the other hand, and this is getting a little bit out of your questionnaire, we may want that specialist to work on the government research station. In fact, we may actually offer his services to the government--a completely different concept than what we've been talking about here. Our motivation in

doing that would normally be two-fold: 1) to help the government in their overall research and 2) to gain their confidence that we have the kind of specialized people that can make a contribution to their country and enhance, thereby, the opportunity for other people to be able to come in and do other phases of work. So it's not that we're totally opposed to that highly specialized person; it depends greatly on the particular situation at hand.

Mullinax: I have read that Southern Baptist don't believe in accepting government funding.

Cheyne: True.

Mullinax: The Southern Baptist Foreign Mission Board does not receive any funding from the United States government?

Cheyne: Exactly.

Mullinax: What about the countries in which the projects are located. Does the host government contribute financially? Is that allowed? What if a government official came to you and said: "We hear you are doing such good work here, and we would like to give you a million dollars." Could you accept that money?

Sorrells: I think that is about as likely of happening as [everyone laughs]. . . . And too, in most Third World countries, what you might say is government funding is actually coming from some donor agency that has stipulated that the government utilize the funds within certain parameters. The government will take those funds and will attempt to find an organization that will meet those conditions; this type of "government" funding does occur. It is highly unlikely, however, that that local government will actually generate its own funds and make them available to you.

Cheyne: I think there is a much more important principle than just funding. While we would have a "separateness" in our funding, we would certainly want to tie into government planning and the utilization of government structures. Let's say, for instance, that as part of a national government program a student agrees to

do two years service for the government upon completing government-sponsored schooling. Alright, say they put him out there in Fred's area as an agricultural extension worker. Now this poor fellow has almost no experience. He's got no funding. He's got no support. And he's trying to fulfill a job that he doesn't want to do because he's away from his own home. He's just sort of stuck out there, and he doesn't really know what to do. Now, rather than creating opposition by overlooking that person and going around him and doing things that he can't do, we would tend to try to support that person and continue that training by utilizing that individual as one of the key people in part of those priorities that the government has perceived as being important in the first place. And so, we are very much working within the framework of government thinking and government planning.

Sorrells: I'd like to add to that. In addition to personnel, many times it's the government that has to make available local resources. If you're wanting to use sand for building or lumber that comes from government forests, these types of resources can be made available by the government if you're working with them and they understand your project. In Burundi, it is not only helpful, but it is essential, to have government approval of your project. If you don't have that approval, you will be out of the country in just a little bit.

Cheyne: You definitely need approval and sometimes even participation with. Let me illustrate with a massive well-drilling project we were involved in down in the Zambezi Valley. In the original concept of design, there was a tremendous amount of buying into and participation on the part of the local community, but when it came to the point of maintaining those wells, we got a commitment from the government that that was their responsibility. We would pick up this phase of the project, and that would be their phase of the project. We try to achieve this type of arrangement with the government when we feel that it will be of benefit to the community involved.

Mullinax: So if you can work with the government, then later on it's not as likely that the government will say to the mission: "You did it, so you take care of it."

Cheyne: Precisely.

Sorrells: It is extremely important to make contact. If you're involved in a well-digging project, for instance, and you can use the same type of shallow well pump that the government is using, it is tremendously helpful to have a good relationship with the government. The government can greatly aid you, because they control import licenses and so forth. So rather than getting over here and being isolated, you need to work with the government.

Mullinax: Many of the missionaries that responded to my questionnaire seemed to indicate that you need the approval of the government, but you really don't want the active participation of the government. Several seemed to be saying that the active participation of the host government could actually be detrimental to the project.

Sorrells: I think it depends greatly on your particular situation. In many of our African countries, though, you're dealing with governments that are there by force and they are very authoritarian. My perception is that if you try to work out of their context (without their cooperation), you're going to get very frustrated and ultimately you're probably not going to be allowed to work in the country. I don't know what you find in South America or . . .

Cheyne: My perception is that there are a lot of mission groups who see the government as an adversary to be overcome. We have tried to instill the idea in our missionaries that even in a country whose government is oppressive and negative, we are not going to treat the government as an adversary. We're going to work in the context of gaining the maximum good will of the people. Therefore, we would want to reflect the kind of an attitude toward the government where they will have to respect us for the good will that we're creating.

Sorrells: I think a good case in point is Uganda. Our folks were there. They tried to work there. They tried to cooperate. Even when there was a change in government, they've still been able to work there. So, on the one hand, you work with the government and, on the other hand, you work with the people. It's a tightrope. But if you can do it, then even when the government changes, you're still there.

Cheyne: And, of course, we're very nonpolitical. We simply will not take a political stand in a foreign country . . .

Sorrells: When you look at the bottom line, we have a Director of Immigration who grants us visas. Ultimately, he controls whether or not we stay. We have to live in that context. And as long as we've been able to maintain good will, there's a hope, even if there's a change in government, that we will be able to remain.

Mullinax: Let me change the subject and ask you about "attitudinal" hindrances to project success. I think lack of trust and cooperation was one of the ones most frequently cited by my survey respondents. Several of them described in some detail incidences in which individuals had placed hexes or spells on others in the community who they felt had benefited more from an agricultural project than they had. Have you encountered much of a problem with this? How should such a problem be addressed?

Sorrells: I think all societies have something that holds them together. No doubt, you have magic and superstitution. It's there. But still, there's a little bit of glue that's holding these folks together to keep them from disintegrating. That's what you have to find. That's what you have to take advantage of. In Burundi, for example, they've got folks that have gotten in and headed up the cooperatives that have gotten off with the funds. So maybe you can't set up a "traditional" cooperative, but people are still willing and can work together. Just because you've had one bad experience doesn't mean that there cannot be another way to achieve cooperation.

Cheyne: Let me make one other comment because I've written rather extensively on the subject. I think there is a fallacy in presuming that you can change basic structures in society without Christ. It takes a transformed people to transform society. The introduction of improved agricultural techniques may accomplish little if a basic lack of integrity remains in the people who are involved in the project.

Now we talk about a wholistic approach to missions, and we don't apologize that we are at once presenting Christ while we are presenting concepts of improved agriculture, medicine, and whatever else. For we know ultimately that the success of these projects will depend upon the level of integrity of the people involved in them. . . . If you look at some of the major international concepts or schemes that have been promulgated through the United Nations, all of them have been dependent upon the fabric of society being something that will hold together in terms of these trust factors. Where they have failed is in the fact that they have expected that once people got educated, or once people got more money, then they would become more honest or they would work together in a better way. They won't. They simply become more clever crooks. And so we've got to start from a premise that part of what we're doing here is bringing Christ and a sense of personhood, so that as we begin to build into structures, we're also building these trust factors into it. You cannot presume that just better techniques will ever solve the problem.

Mullinax: So you're attempting to work in both areas.

Cheyne: Definitely. They are not mutually exclusive. We have a wholistic approach to missions.

Mullinax: But if you see that the people in a community are not going to become Christians, you don't just give up and move on to another community?

Cheyne: Oh, certainly not.

Sorrells: The project, you see, may even be a channel for advancing and broadening our witness.

Mullinax: What about the risk factor? The risk constraint facing small subsistence farmers is one of the biggest topics in the literature today. In your opinion, Fred, how significant is the risk constraint?

Sorrells: Very significant. The big thing that they're looking at is not production; they're looking at risk. You can design all kinds of programs, but if they involve a great deal of risk when a person is living right at the level of survival, or maybe even below it in some cases, he's not going to be willing to risk when failure may mean starvation. That's what it boils down to. So you need not only long-term people to bring more security to the project, but you must also be extremely careful about what you propose. My idea is basically that you're fine-tuning, especially in agriculture.

If you study what is taking place right now and you read the publications coming out of your international agricultural institutes, they are basically saying to do what farmers were doing thirty or forty or fifty years ago. We came in and said to people without machinery, "Look, you need to plant your crops in rows." We came in and said to people who were intercropping, "Look, you need to plant in single stands." Our idea being, coming out of our system, you need to plant in rows for cultivation purposes, and you need to plant in single stands so it will produce better. But now that we're going back and studying it, we're finding that you actually get a greater yield per acre when you plant your beans and corn at the same time. Your beans come off in three to five months. Your corn grows on up. It comes off in six to nine months. You're actually getting two crops. Some years your corn may fail, but you've got your beans. Other times your beans may fail, but you have your corn. And so we're seeing that those farmers were actually "smarter" than we thought they were. We're learning that much can be gained by listening to farmers and observing what they are currently doing. I have tried to do this in my work in Burundi. I may go to the people and say, "Look, instead of this variety of potatoes your planting, there's actually one that's more disease resistant and will yield more under your circumstances;" but

I'm not going to them and saying, "Look, nothing you're doing is right."

Cheyne: And just like your illustration earlier, you're building on a system that's already there. Secondly, because of the risk factor, you wouldn't introduce it to the entire farm the first time. This is something you would develop over a period of years. Maybe the first time you would try the new variety on only 300 square feet, just to test to let the farmer see the contrast. Then you would begin to build on that.

Sorrells: This is what is being done now in what is called on-farm research. You take ten farmers, for instance, and try a new variety on their farms; then you may want to go back to the research station and take those results and modify them; finally, perhaps after several rounds of modification, you go back to those farmers and let them be your extension agents. Its a beautiful concept. It involves the farmers, and it addresses their needs and constraints. Most importantly, it allows for continuous feedback to the research stations so that the best possible results can be achieved on the farmers' fields.

Mullinax: Much is being written today about the importance of having an "integrated" approach when seeking to improve the well-being of the developing world's small subsistence farmer. Are most Southern Baptist agricultural projects part of an integrated program of health, education, etc.?

Cheyne: Very much so. To work in an integrated manner is terribly important. As an illustration, if you're introducing wells for clean water and don't have a nutritional training program that teaches the people what the clean water is for and why you're introducing it, then you may encounter severe problems. We had a project that failed pretty badly down in South America. We introduced potable water in this community. We had some big tanks that the community helped to build for water storage. Everything was going along beautifully, and the project was turned over to the nationals. They immediately began to use the water because it was more

accessible to water their gardens with. When the government saw that they were doing this, however, they cut the water off for three days every week. So the people said "fine," and they went right back and drank from the river on those days. They simply did not understand that there was a difference between the water in the tanks and the water in the river. They only knew that the water out of the tanks was more accessible. Part of what fell through the crack, then, was that there was not a strong educational program that went along with the introduction of potable water. It was later instituted as a recovery measure. Unfortunately, these kinds of oversights occur frequently if you're not extremely careful.

Mullinax: A frequent oversight that I've encountered in my reading on agricultural assistance is the introduction of foods for nutritional purposes that are never really accepted by the community because the people simply didn't like the taste of them.

Cheyne: One of the things that we do quite often to avoid this problem is to ask a nutritionist to analyze the nutritional value of foods that are common in the area. For quite often, the people are eating a tremendously unbalanced diet because of an emphasis, for instance, on corn meal rather than other things that they like equally well. If we can begin to explain to them how they can get a balance in the things that they already like, we may be able to solve the problem without introducing "new" foods.

Mullinax: What makes the agricultural assistance efforts of mission agencies different from government efforts? Do you think your programs have a greater chance for success?

Cheyne: I do, and my key reason would be this: We try to instill in the missionaries who are involved in these projects that they are to be person-centered, not project-centered. If you're constantly thinking about the individual--his concerns, his feelings, his hurts, his ability to develop and to grow--then the mechanism around that would become somewhat incidental; but if you're coming in from the outside from a government approach, you're project-centered of

necessity because the whole structure of getting funding has to do not with whether or not the project is dealing with people but with whether or not the project is designed according to certain standards. In a government project, a man can go overseas and spend six months on the field, have his project, and go home with a feeling of tremendous success; but, most likely, he has never ever really dealt with people. The career missionary, on the other hand, is primarily person-centered. He is thinking about the person in a wholistic way--about his relationship to God, about his welfare and the welfare of his family, about the community, etc. Therefore, the project is almost incidental in terms of dealing with that person. I think that "person" is the key.

Mullinax: Church planting is a major goal of Southern Baptist mission work overseas. Now, if you have been able to establish churches in the area in which you are seeking to conduct an agricultural program, do you then use those churches as an "organization" through which . . .

Sorrells: I think it works both ways. In new areas, the project will enhance the process of church planting, rather than vice versa. Hopefully as the Christian community begins to develop, it will aid the project. It's a dual type thing.

Cheyne: Let me illustrate something here if I may, Fred. I recall a government project in Kenya in which the head of the project happened to be a Southern Baptist working with the United States government. He was not related to us in any way as a missionary. He had $52 million just for this one project. The basic concept of the project was loans to the small farmer. The maximum loan, as I recall, was something like $1500--just enough to get the small farmer started in certain things. They had been able to loan the money without too much problem, but only about six percent of the loans were being paid back. The project was a total failure at this point. So this man came to us because in that particular area we had about 150 churches. He said to us, "Part of the reason for the failure of our project is that we have no peer pressure groups where if one person in that group fails, it will affect the entire group.

We need those kinds of groups. There's no way we can apply that kind of pressure externally. Could we somehow use your local congregations as the groups from which we can gain the peer pressure to make our project function successfully?" You see, he was turning right back to the church, realizing that you've got to have some of these "foundational" things for creating trust and relationships in order to make even a government project succeed.

Sorrells: The big thing with government projects--USAID and so forth--is that ninety percent of the project leaders' time is spent at a desk in an office. They very rarely have an opportunity to get out into the fields. When they do, they're not often able to do a whole lot. Few know the language; almost none know the culture. They are just at a distance. Most of what they do is just on paper. On paper it may look great, but when . . . Like the potato researcher I spoke of earlier. He's done a great job at the research station, but the extension is where he really wants to be. For so long, he's not had any contacts out in the field. This is where I feel I can really be of service. I've heard many government people say, "You missionaries have a real opportunity because you're where the people are, not in the capital city."

Mullinax: Should mission agencies be involved in institution building? The responses I received from the missionaries indicated that this might be somewhat of a controversial issue.

Sorrells: I think the idea that John has on behalf of our developmental ministries is very good. In some cases, a certain amount of structure is necessary. So we may commit ourselves to a one time deal, if it is something that's going to operate itself. We are not against institution building. We simply want to avoid involving ourselves in something that would require on-going funding year after year after year, without ever having a chance of being self-supporting. So we do support the notion of insitution building, within limits.

Mullinax: So if you can't see the institution becoming self-supporting within the context of say your twenty-year plan, then you probably wouldn't . . .

Sorrells: Probably not even twenty years.

Cheyne: As a matter of fact, we have a guideline which says that we won't fund a project normally beyond three years. It's got to become self-sustaining. It depends really though, coming back to your original question, on what your definition of "institution" is--whether you're talking about the larger structure of an institution, such as an agricultural training school or something like this, or whether your talking about local institutional concepts, such as a cooperative.

Mullinax: My problem is that I don't know what the respondents were actually referring to when they made comments in support of, or in opposition to, "institution building."

Cheyne: Right. Well, there is a tendency because of our overall philosophy for us to be noninstitutional in approach, simply because of what Fred has already stated with regard to the long-term maintenance of an institutional asset and the dependency on outside resources that so often occurs, etc. I would say that we are noninstitutional in that sense; on the other hand, we would tend to say that if we can create the models that are replicable within that local structure, we will have done better than to have created a larger institution. Quite often we will look at maybe ten communities at once to see whether there is the potential of replicating project concepts from one community to another. In a sense that's an institution, at least in the finer definition of the word.

Sorrells: I think that usually when you read about institution building, you're looking at your research component, you're looking at extension, or some type of training--big components that usually require millions of dollars. I think what we are trying to say is that we would avoid activities that are so large-scale that . . . uh

Mullinax: the amount of funding necessary would be enormous?

Cheyne: Precisely. Let me give you an illustration from our work in Ethiopia. The government asked us whether or not we would open a breeding station. Our response was: "No, but we'll cooperate to

make your breeding station more effective." So the first thing we did was to bring over a highbred ram from Arizona at high altitudes. This breeding station was at over 8000 feet, and so it required a certain type of breed. We introduced this animal to them as well as other animals later on. We bought the offspring at a reduced price and introduced the offspring into the community for the government. We then worked with our veterinarian and our agriculturist in that community to make the ultimate product have better wool and better meat. And we kept helping the government institution to do a better job of what they were doing, rather than creating a new institution of our own.

Mullinax: So that goes back to an issue we discussed earlier with regard to the role of the government. We should be complementing, rather than competing with, the work of the government.

Cheyne: Exactly. Yes.

Mullinax: In other words, if the government is already doing something, let them do it?

Cheyne: And help them do it better.

Sorrells: Even if they're [the government] not doing it, but there's a possibility that somebody else could do it or is in a better position of doing it, let them do it.

Mullinax: So you are seeking to involve your missionaries with peoples that you believe are not being, and have little hope of being, aided by their government or some other group or agency.

Cheyne: Yes. Very much so.

Sorrells: And too, there are many "good" things that we could be doing that we have to leave off, because we are not just in the business of ministering to the physical needs of the people. The FAO has accomplished a great deal, but there may not be many FAO experts who are going to be presenting a strong Christian witness. And so we find that we cannot do everything if we are going to be true to our overall objectives. We are to be involved in wholistic ministries.

Cheyne: And let me make one last comment here as we're drawing to a close. We are not a relief agency. We are a mission board. We are a mission board that presents an "integrated" program or a "wholistic" program that recognizes that good health, food, and these other factors are part and parcel of our essential purpose for being overseas. It is part of a total Christian witness. It is the "whole" person that we are ministering to. So we would never want to get to the place that we begin to establish ourself as an agency that is primarily dedicated toward agriculture or toward any other single issue of a functional ministry. We don't operate as a relief agency, and we never intend to operate as a relief agency. All relief agencies, you see, whether you're talking about World Vision or even a denominational agency such as Church World Service in New York (the relief arm of those denominations), must of necessity dichotomize between their "relief" work and their "mission" work; and in doing so, they become dedicated to a project-centered approach. This we cannot, and will not, do. We will continue to have a "wholistic" approach.

VITA

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In the fall of 1977, Ms. Mullinax entered The Graduate School of the University of Tennessee, Knoxville. During her years in graduate school she served as a Graduate Assistant, a Graduate Teaching Assistant and an Instructor in the Department of Economics. She was awarded a Master's degree in Economics in 1981 and the Doctor of Philosophy degree in Economics in 1987.

Ms. Mullinax was employed by the Tennessee Valley Authority Engineers Association as an economic consultant from 1981 to 1983. She is currently serving as an Assistant Professor of Economics at Lenoir-Rhyne College in Hickory, North Carolina, a position she has held since August 1984. Ms. Mullinax is married and has two sons.