

PERCEPTIONS OF SELECTED GOALS IN VILLAGE  
DEVELOPMENT FOR HONDURAS BY THREE  
LEVELS IN THE DEVELOPMENT CHAIN

By

DARRYL VERNON MORTENSEN

Bachelor of Science  
University of California-Davis  
Davis, California  
1961

Master of Education  
University of California-Davis  
Davis, California  
1967

Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
DOCTOR OF EDUCATION  
July, 1984

Thesis  
1984D  
M887p  
cop.2



PERCEPTIONS OF SELECTED GOALS IN VILLAGE  
DEVELOPMENT FOR HONDURAS BY THREE  
LEVELS IN THE DEVELOPMENT CHAIN

Thesis Approved:

*James P. Key*  
\_\_\_\_\_  
Thesis Adviser

*Robert Terry*  
\_\_\_\_\_

*Robert L. Price*  
\_\_\_\_\_

*Kenneth H. Clari*  
\_\_\_\_\_

*Norman J. Durbin*  
\_\_\_\_\_  
Dean of the Graduate College

## ACKNOWLEDGMENTS

The writer wishes to express his gratitude for the assistance provided by the personnel of the Christian Reformed World Relief Committee (CRWRC) and the personnel of the Comite Evangelico de Desarrollo y Emergencia Nacional (CEDEN). A special thanks is expressed to Miss Betty Roldan, CRWRC Technical Advisor to CEDEN in Health, for her help in supervising the gathering of the data in Honduras.

Sincere appreciation is expressed to the staff members of the Agricultural Education Department of Oklahoma State University for their advice, patience, and guidance during the duration of this study. In particular, thanks goes to Dr. James Key and Dr. Robert Price for their untiring guidance and cooperation during the entire study. Appreciation is also expressed for the help Dr. Pastor Perez gave in assisting with the translations of the questionnaire from English to Spanish.

A special expression of love, thanks, and appreciation, is expressed to the writer's wife, Donna Jean, and son Vernon, who helped, encouraged, supported, and made special sacrifices in order that the writer might successfully complete this study.

## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION. . . . .	1
Background Pertinent to Recognition of the Problem . . .	2
Statement of the Problem . . . . .	3
Purpose of the Study . . . . .	3
Objectives of the Study. . . . .	3
Background Information for the Study . . . . .	4
Assumptions. . . . .	8
Scope and Limitations. . . . .	9
Definition of Terms. . . . .	9
II. REVIEW OF LITERATURE. . . . .	13
Introduction . . . . .	13
Development Concepts . . . . .	14
The Village Extension Agent and Village Leader . . . . .	22
Agriculture in Development . . . . .	24
Education in Development . . . . .	28
Health in Development. . . . .	32
Research in Development. . . . .	35
Evaluation in Development. . . . .	37
Summary. . . . .	38
III. DESIGN AND METHODOLOGY. . . . .	40
Introduction . . . . .	40
The Regions of Study . . . . .	40
La Ceiba Region . . . . .	40
Reducto Area--Part of the Tegucigalpa Region. . . . .	41
Population of the Study. . . . .	42
Instrument . . . . .	46
Collection of Data . . . . .	48
Analysis of the Data . . . . .	50
IV. PRESENTATION AND ANALYSIS OF DATA . . . . .	53
Introduction . . . . .	53
Background of the Population . . . . .	53
General Characteristics of Respondents . . . . .	54
Responses to Questions Pertaining to the Importance and Achievement of the Selected Agricultural Goal Items. .	57
Responses to Questions Pertaining to the Importance and Achievement of the Health Goal Items . . . . .	61

Chapter	Page
Responses to Questions Pertaining to the Importance and Achievement of the Educational Goal Items. . . . .	65
Responses to Questions Pertaining to the Importance and Achievement of Administrative/Developmental Goal Items	68
Responses to Questions Pertaining to Village Improvement. . . . .	74
Major Problems Confronting Villages. . . . .	76
 V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . . . .	 85
Summary. . . . .	85
Rationale for the Study. . . . .	85
Purpose of the Study . . . . .	85
Objectives of the Study. . . . .	86
Design of the Study. . . . .	86
Major Findings of the Study. . . . .	88
Relative Importance of Village Development Categories. . . . .	89
Relative Achievement of Village Development Categories. . . . .	91
Comparisons Relating to Relative Importance and to Achievement . . . . .	92
Relative Village Improvement. . . . .	97
Major Problems Confronting Villages . . . . .	97
Conclusions. . . . .	100
Recommendations. . . . .	104
 SELECTED BIBLIOGRAPHY. . . . .	 108
 APPENDIX - INSTRUMENTS . . . . .	 112

## LIST OF TABLES

Table	Page
I. Frequency Distribution of Target Population by Development Level. . . . .	43
II. Village Population and Responses . . . . .	45
III. Statistical Treatment of the Data for Importance Categories.	51
IV. Statistical Treatment of the Data for Achievement Categories	52
V. Statistical Treatment of the Data for Improvement Categories	52
VI. Percent Distribution of Responses Received by Development Level and by Specific Task Performed . . . . .	56
VII. Respondent's Mean Years Associated with Development Agencies (CRWRC or CEDEN) by Development Level. . . . .	57
VIII. Perceptions by Three Levels in the Development Chain as Indicated by Mean Scores Expressing Relative Importance and Achievement for Selected Agricultural Goals. . . . .	58
IX. Perceptions by Three Levels in the Development Chain as Indicated by Mean Scores Expressing Relative Importance and Achievement for Selected Health Goals. . . . .	62
X. Perceptions by Three Levels in the Development Chain as Indicated by Mean Scores Expressing Relative Importance and Achievement for Selected Education Goals . . . . .	66
XI. Perceptions by Three Levels in the Development Chain as Indicated by Mean Scores Expressing Relative Importance and Achievement for Selected Administrative/Developmental Goals. . . . .	69
XII. Perceptions by Three Levels in the Development Chain as Indicated by Mean Scores Expressing Relative Village Improvement for Selected Development Categories. . . . .	75
XIII. Major Agricultural Problems Confronting Villages as Identified by Development Levels . . . . .	77
XIV. Major Health Problems Confronting Villages as Identified by Development Levels . . . . .	78

Table	Page
XV. Major Education Problems Confronting Villages as Identified by Development Levels. . . . .	79
XVI. Major Administrative/Developmental Problems Confronting Villages as Identified by Development Levels . . . . .	80
XVII. Summation: Distribution of Respondents by Development Level. . . . .	88



LIST OF FIGURES

Figure	Page
1. Summary of Mean Responses of Importance and Achievement Levels for Selected Development Categories as Perceived by the Tri-Level Development Chain . . . . .	90
2. Perceptions of Respondents Within the Tri-Level Development Chain of the Extent of Accomplishment in the Combined Selected Categories of Village Improvement. . . . .	98
3. Summation: Major Problems Confronting Villages as Identified by the Tri-Level Development Chain. . . . .	99

## CHAPTER I

### INTRODUCTION

The country of Honduras is about the size of Pennsylvania, having a population of approximately 3,250,000 with sixty-five percent of the inhabitants living in the rural areas (CEDEN, 1980). It is the second poorest country in the Western Hemisphere with an average per capita annual income of \$253 in 1981. The economy is basically agricultural, with a small growing industrial sector. The upper and middle classes, which comprise about 20% of the population, earn 80% of the total available income in the country (CEDEN, 1980). The yearly per capita income of \$253 is not realistic when it comes to the per capita income value for the rural poor which is estimated to be about \$113 per year (CEDEN, 1980).

Before 1950 the development efforts in Honduras were left mostly to the private sector; however, in 1950 the government of Honduras began to take a more active role in the country's development by creating the National Development Bank, whose role was to plan, do research and invest in specific projects that would stimulate national development. Since then, two other government ministries, the Ministry of Natural Resources and the Ministry of Communications and Public Works have also become involved in economic development (Blutstein, 1971).

In more recent years the U.S. government, through the Agency for International Development (AID), as well as the United Nations and other

foreign governments have assisted Honduras in its development efforts. In spite of these efforts in the area of development, the lot of the average Honduran has not been greatly changed since their independence from Spain (Blutstein, 1971).

### Background Pertinent to Recognition Of the Problem

Because of the continuing high number of failures in village development projects and the failure to improve the living conditions of the Third World rural poor, it was deemed appropriate at this time to study the perceptions of people on different levels of the development chain concerning their views of the development process, techniques and methods used. It was the intent of this study to bring to the forefront some areas that need improvement or change so that village development programs might reach the Third World rural poor more effectively.

There appears to be some evidence of a lack of communication between the levels of personnel engaged in village development. For example, in some nonprofit voluntary agencies and church development groups involved in rural development there seem to exist some discrepancies between the levels in the development chain. Three levels identified here are: (1) the donor contracting or financing agency such as churches and voluntary nonprofit agencies (US Administrative level), (2) middle level project administrators, planners, directors, supervisors, technicians and foreign field advisors (Middle Management level), and (3) village level workers such as; promoters, extension agents, village leaders and villagers (Village level). Discrepancies as to what should be done, who should do it, as well as when and how it should be done,

often cause friction and thereby jeopardize the success of a development project.

#### Statement of the Problem:

There is ample evidence that personnel engaged in village and community development often do not share the same concepts, goals and objectives with regard to the development process. Therefore the problem of this study was the need to determine the areas of agreement and disagreement concerning importance and achievement of selected village development goals, and the extent of these differences.

#### Purpose of the Study

The major purpose of this study was to ascertain perceptions relative to village development concepts and programs as held by individuals categorized in one of three levels of program involvement in the development chain as it is presently operating.

#### Objectives of the Study

The guideline objectives established for attaining the above purpose were:

1. To determine the differences in the perceptual assessment made by individuals comprising each of the three levels of the development chain with regard to the relative importance of selected items pertaining to the process of village development.

2. To determine differences in the perceptual assessment made by individuals comprising each of the three levels of the development chain as to the extent to which selected items in village development have

been accomplished.

3. To compare the perceptual assessment made by individuals comprising each of the three levels of the development chain with regard to relative importance and relative achievement of selected items pertaining to the process of village development.

#### Background Information for the Study

The Christian Churches have worked for hundreds of years in spreading the Christian Gospel to all corners of the world, but have had very limited programs of relief and assistance during this time. It was not until after World War II that the Christian Churches in First World Countries began to see the real necessity of providing relief and development assistance to its brothers in Christ in less developed countries who were less fortunate than they were.

At first this aid was in the form of relief from disasters and usually included food, medicine, clothing and shelter. This aid was usually directed more to the Christians than it was towards the non-Christian community. As the Church grew in its wisdom, it became evident that relief aid and give-away programs were not the answers to the problems confronting the poor, though disaster relief was still considered necessary when catastrophes struck.

The Christian Reformed Church of Canada and the United States, like other denominations, had been involved for many years in church planting around the world. It wasn't until 1962 that the Christian Reformed Church decided that it should take a deliberate role in the area of caring for the physical aspect of man as well as caring for the spiritual man. In 1962 the Christian Reformed World Relief Committe

(CRWRC) was formed with the mandate to take Christ's love and salvation to the poor throughout the world, but with the major emphasis on relieving the physical suffering of man.

In the early years the Christian Reformed World Relief Committee (CRWRC) responded mostly to disasters in the United States, Canada and abroad. As CRWRC gained more experience it became evident that disaster relief was important, but if lasting effects were to remain, some sort of assistance to the poor beyond relief and give-away programs would have to be implemented. It was soon discovered that there was little village level research information available (Holdcroft, 1978). Using what little information was available, programs in agriculture, health, literacy, and other areas were started in both North America and overseas. As information from the field became available, CRWRC began to formalize what it felt was a basic general concept for development programs. Some of these basic concepts are as follows:

1. The recipients of the aid program must be involved in the total planning, implementation and evaluation of all programs affecting them.
2. Control of the local projects should be in the hands of the local recipients.
3. Baseline data should be gathered before the project starts.
4. From the baseline data the recipients should set realistic yearly and long range goals.
5. The recipients of the aid should discover their own needs and decide on their priorities.
6. Whenever possible, CRWRC will not start its own programs, but will try to work through local Christian Reformed churches or local national church related agencies.

7. Some form of a contract should be formalized, agreed upon, and signed by all parties involved so that each party will understand its responsibilities.

8. The desires and needs of the community must have been expressed by members of the community to be helped, and there is no assistance available from the government or other appropriate development group.

9. A time schedule must be set for completion of the projects.

In the early 1970's a number of Christian development groups were set up in Central America by their national churches. With the financial support of the United States, Canadian and European Churches and the assistance of a few United States and Canadian Church workers these groups began to develop their own relief and development agencies. As these groups came into being, they were weak and slow to see what their role should be in the development process of their respective countries. Like their counterparts in the United States and Canada, these groups first saw their role as being that of disaster relief and give-away programs. As with the Churches in the United States, they soon saw that their role needed to change. The necessity of this change became evident after the Guatemala and Nicaragua earthquakes and the large hurricane Fifi that hit Honduras. These disasters were so great that the Central American Churches could not continue to feed and shelter the people, but had to think about more long term development projects. These disasters in essence were the sparks that started these church groups to move towards development-type projects, yet still maintaining the ability to respond to disasters in each of their respective countries. Two of these three original groups are still functioning today. The group in Guatamala failed after a short time,

but both the groups in Honduras (CEDEN) and Nicaragua (CEPAD) have grown and formed an important part of their respective country's development programs. More recently new groups have developed in Guatemala and El Salvador.

CEDEN is a Christian development agency formed by various churches and denominational groups in Honduras. Each year representatives from each church denomination or group meet to elect a board of directors. The board of directors oversees the work of CEDEN and appoints the executive director. The executive director of CEDEN is directly responsible to the board of directors and he or she must report monthly to the board concerning problems and progress in the CEDEN national programs. CEDEN works on three levels. The national level is centered in Tegucigalpa, the capitol city, with the executive director, administrative staff and the program directors located in this central office. One or two foreign advisors are also stationed in the central office. The personnel in the central office are to develop policy, develop general program design and evaluation, raise funds and do general administration. There are four regional offices; La Ceiba, San Pedro Sula, Chulateca, and San Marcos. Each of these regional offices has a regional director responsible for the complete work of CEDEN employees in that area. These regional offices have an administrative staff as well as a working staff of village level workers called promoters. The third level is composed of village leaders and villagers who are not technically part of CEDEN, but have contracted with CEDEN for resources and training.

The village level programs are serviced, supervised and assisted from the five different CEDEN offices. Programs are developed in



partnership with the villagers and CEDEN. Each village develops its plan of priorities within the financial and personnel resources of CEDEN and the village. Regional plans are developed from the various village plans. Each region is supported financially by different foreign Christian and nonprofit agencies.

Village level promoters from CEDEN train villagers in agriculture, health, water development, latrine construction, literacy, human relations, and village organization. Within each of these areas there are many types of possible projects. Villagers are taught how to become aware of their needs, how to plan to overcome these needs and how to implement and carry out the programs agreed upon.

CEDEN is run and operated by Hondurans, therefore it has been the goal of CEDEN to try and maintain a sense of village control over the projects. CEDEN is still young and developing, and this village level control has not always been practiced to its fullest extent.

#### Assumptions

1. It is assumed that the villagers and village leaders have had sufficient exposure to development programs to make their judgements valid.

2. It is assumed that interviewers of the semiliterate and illiterate villagers and village leaders were able to communicate the intended ideas of the questionnaire.

3. It is assumed that interviewers of villagers and village leaders did not attempt to exert undue influence upon the respondents.

4. It is assumed that the position which the village extension agents or promoters occupied provided them with sufficient knowledge and

experience to make their judgements valid.

5. It is assumed that the positions held by the middle level development personnel and the U.S. level development personnel gave them sufficient knowledge and experience to make their judgements valid.

#### Scope and Limitations

1. The study was limited to three provinces in Honduras, Central America. The provinces were; Morazan, Atlantida and Colon.

2. In the province of Morazan the study was limited to eight villages. These villages were: Reducto, Las Tablas, Terrero de San Pedro, Coato, Las Terreritos, Rio Grande, Terrero Blanco, and San Pedro.

3. In the provinces of Atlantida and Colon the study was limited to nine villages. The villages were: Fortaleza de Leon, Limeras, Ceibita Way, Ceiba Grande, Cerro Colorado, Las Crucitas, Lucinda, Sombra Verde, and Lagunitas.

4. The study was limited to a random sample of farmers from the above seventeen villages, the total population of village leaders, and the total population of promoters working in the seventeen villages.

5. This study surveyed only those villagers who had been involved in at least one project with CEDEN.

#### Definition of Terms

For the purpose of this study the following definitions are given.

1. Alfalit: A Latin American Christian group working in literacy, with its international headquarters in Costa Rica.

2. CEDEN: National Christian Relief and Development Agency in Honduras, Central America consisting of different Christian groups and

denominations in Honduras.

3. Community Development or Village Development (has many definitions):

a. A process whereby people learn to take charge of their own lives and solve their own problems (Bunch, 1982).

b. A method by which national governments or Private Voluntary Organizations reach out to people on the village level and help them use local initiative and resources to achieve increased production and higher standards of living, and as a social process by which the people of a community define, solve, and actually work out, as a community, the problems they face, relying as much as they possibly can upon local resources. (Shields, 1967).

c. A process in which the people of a community organize themselves for planning and action; define their common and individual needs and problems; make group and individual plans to meet their needs and solve their problems; execute these plans with a maximum of reliance upon community resources; and supplement these resources when necessary with services and materials from governmental and non-governmental agencies outside the community (U.S. International Cooperation Administration, 1956).

4. CRWRC: Relief and Development Agency of the Christian Reformed Church called Christian Reformed World Relief Committee.

5. First World Countries: Countries that are economically well off, such as the United States. Also called developed countries, or high income countries.

6. Head of household: That person who is responsible for heading, leading, or making decisions for the family. In Latin America it is

usually the husband or the oldest adult male in the family.

7. Illiterate: A person who is not functional in reading and writing skills. A literate person should be able to read simple extension bulletins, the local newspaper, be able to write a simple letter and read or write directions for a specific job.

8. Levels of the Development Chain: For the purposes of this study the term "levels of the development chain" is used in reference to the following: Level one: U.S. Administrative Level respondents consisted of United States based national leaders in the Christian Reformed Church World Relief Committee (CRWRC) who are the primary donor-contractors and financiers of development programs and technical assistance in the areas of village development and relief. These efforts are generally located in countries of the Third World. Level two: Middle Management Level respondents included two groups, (1) CRWRC technical missionaries from North America whose major responsibilities are in the development area and (2) national and area leaders in the Honduras sector of the Central American relief and development organization, Comité Evangelico de Desarrollo y Emergencia Nacional (CEDEN). Level three: Village Level respondents were comprised of three village centered groups; (1) village level workers from CEDEN, called promoters, (2) trained village leaders and (3) villagers who had previously been involved in CEDEN projects.

9. Notable: The term notable in this study was used to designate findings as to both differences and relative scores of importance and achievement which were considered to be of critical weight as compared to other findings. Specific critical weights are found on page fifty.

10. Program supervisor or director: A highly qualified person with a specialty area corresponding with those of the promoters. He or she helps supervise promoters, gives training courses and assists the promoters wherever possible.

11. Second World Countries: Countries that are no longer extremely poor economically, but have not reached a standard of living as is in the United States, Canada, and most of Western Europe. Also called medium income countries.

12. Third World Countries: Economically poorer countries of the world. Also identified as less developed countries, developing countries or low income countries.

13. Village leader: A leader selected from among the villagers by the village to be trained in a specialty area such as agriculture, health, construction, literacy, etc.

14. Village promoter: A village development worker, normally from outside the village, is an individual selected because he or she usually has at least one specialty skill area such as agriculture, health, human relations, construction, etc. Such an individual functions in an advisory capacity to those villagers who are cooperating in the village CEDEN programs.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

The purpose of this chapter was to present an overview of the material related to the subject of this study. The review of literature was divided into seven major areas and a summary. The major areas were: (1) Development Concepts, (2) The Village Extension Agent and Village Leader, (3) Agriculture in Development, (4) Education in Development, (5) Health in Development, (6) Research in Development, and (7) Evaluation in Development.

In the Third World, community development as we know it today is a relatively new idea. Before the end of World War II most First World countries were interested in their own national growth and well being, giving little attention to the problems of the Third World. This review of literature is an attempt to document changes that have occurred in development theories and to identify some of the major ideas and principles necessary for successful rural development in the Third World. The amount of money spent on development in the Third World by the First World has increased tremendously since 1945 (Bunch, 1982). Between 1952 and 1962 the United States alone spent fifty million dollars annually on community development projects in thirty Third World countries (Holdcroft, 1978), and by 1974 the United States was spending over 3,000 million dollars per year on all kinds of aid to the less

developed nations (Wortman, 1978). In 1976 the total financial aid, excluding food aid to the Third World from the developed nations, reached 22,000 million dollars (Wortman, 1978). During the early years of involvement in the Third World, the United States expected substantial improvements in the situation of the poor resulting from its development efforts. The results did not reach the expectations of the planners; in fact evaluation efforts revealed that more than one half of the projects were a near total failure (Bunch, 1981). With the continued population explosion resulting in increased strains on availability of food for the poor, the need for understanding village development has taken on an additional dimension of urgency.

#### Development Concepts

From the late 1940's to the early 60's the development strategy of the United States was centered around the ideas, techniques, methods and theories of the community development specialist and rural sociologist. The community development discipline viewed the village as a total, including all aspects of the village scene, and sought to help the villager gain an awareness of his situation so he could organize, and with a little help, solve most of his own problems. From the position of the "free" or capitalist countries, community development was considered to be democratic in nature and was justified as a political tool to stop the spread of communism (Holdcroft, 1978). Conversely, countries characterized as having centrally planned economies and generally referred to as communist, view community development as a process-result of liberation from the shackles of capitalistic class orientation.

A village worker, called a community developer, was to help the village discover its needs, set priorities, and then mobilize the village to solve these problems. The village worker was usually a generalist with good training in the behavioral sciences. The community development group organized, motivated, and helped build schools and roads, and it trained villagers in many needed skill areas (Holdcroft, 1978). After more than ten years of community development work, there were only a few successes (Khan, 1978). India and the Philippines seem to have had the most successful programs but even there they did not reach any great level of accomplishment (Holdcroft, 1978).

The United States had been the leader in promoting and financing community development, but then became discouraged and withdrew somewhat from the development area (Holdcroft, 1978). The United States was then accused of not paying as much attention to development in the Third World as it had in the 1950's (Bradford, 1974; Poats, 1972). However, by the 1970's the United States was again deeply involved in development assistance to the Third World (IADS 1980 Report, 1981).

During the era of community development, the agricultural and biological scientists were delegated secondary roles as compared to the community development specialists, and since that time the two groups have never gotten along well. The biological scientists began to play a more prominent role in this area when it became apparent to the financing agencies that the community development specialists were not meeting the needs of the rural poor (Holdcroft, 1978).

The agronomist and biological scientists often seemed to view hunger problems as solely physical. They had great faith in a belief that agricultural production could be increased and then the problem of



hunger would disappear and communities would begin to develop. The scientists received the financial backing, and new technological advances in agriculture and other related areas became available to the world. New high-yielding grain varieties, especially rice and wheat, were introduced and thus the green revolution began. Instead of the community development generalist, the green revolution required trained agronomists and other agricultural related workers to extend these technological advances to the village farmers.

More than ten years passed and the world watched as the gross national product rose for nearly every Third World country (Rhoades, 1977). The agriculturists claimed victory, but a cry from the community development specialists and sociologists soon showed that victory over hunger was far from being achieved. A check by the development agencies found that indeed the gross national products had risen and that grain production in the Third World was up substantially, but the poor continued to exist (Khan, 1978; Ntiri, 1980; Schumacher, 1973; Wharton, 1976; Hannah, 1976; Oluwasanmi, 1976). It was apparent that poverty, not the scarcity of food, was the cause of hunger (IADS 1980 Report, 1981; Rhoades, 1977). Food is generally available to those who have money (Bunch, 1982).

The poor were not only poor, but often worse off than before (Bunch, 1982; Bradford, 1974). They were poor, not from the lack of money invested nor limitations of technology, but from the lack of understanding as to how to implement development under all the varying physical, social, political and cultural conditions that exist in the Third World (Khan, 1978). Many development agencies and Third World countries thought that economic growth alone was the answer to

development (Bradford, 1974). It was alleged that often national statistics masked the real situation as experienced by the average person, and so it became evident that the gross national product was not an adequate overall indicator of village development (Castillo, 1976). Governments and other agencies are now mandating that development programs be aimed directly at attacking and solving the problems of the poor rather than simply raising the gross national product (Castillo, 1976; Mehan, 1978; Bread For The World, 1983; CEDEN, 1980).

The United States assumed that scientific advances resulted in benefits to all socio-economic classes equally but found that the green revolution supported the more affluent farmers, large and small (Khan, 1978; Castillo, 1976; Oluwasanmi, 1976; Bradford, 1974; Rhoades, 1977; Mosher, 1971; IADS 1981 Report, 1982; Wittwer, 1977). The agricultural researchers developed grain strains that needed high foreign inputs and assumed that all farmers could afford the "miracle" seeds, necessary pesticides, fertilizer and necessary water control that were imperative to gain maximum benefits from these new crops (Rhoades, 1977).

In spite of these rather disappointing results the efforts of both the agronomists and the community development specialists have been worthwhile, initiating ground work for development in the countries where they have worked. One of the major difficulties has been to make certain that assistance to the poor does, in fact, reach those for whom it is intended (Hannah, 1976; Bunch, 1982). Increasing production for both the affluent and the poor farmers is a problem that demands attention and must receive prime consideration throughout the Third World.

Many First World countries and development agencies insist that

increasing the gross national product will benefit all of the inhabitants in each of the Third World countries. The assumption is that when the economy of a country is growing, the entire population benefits from the overall increased prosperity. This has been called the "trickle down" theory and, as assessed by social scientists, has not proven to be true (Khan, 1978; Holdcroft, 1978; Mehan, 1978; Wittwer, 1977; Bunch, 1982; Poats, 1972). Almost none of the large development programs have ever "trickled down" to the poor, small farmer (Bunch, 1982). Since the beginning of the concerted effort by the First World to share its technology and its education with the Third World, small farmers have profited very little (Wittwer, 1977).

Most agencies involved in rural development now realize that the development process must include the total village, not just one sector of the village environment (Rhoades, 1977; Shields, 1967). Rural development planners should remember to take into account all aspects of village life, blending into the economical, social, spiritual, religious and cultural areas of the village (Bunch, 1982; Kristensen, 1974). The village is a total and integral entity and cannot be broken into pieces with the problems attacked piece by piece (Wharton, 1976; IADS 1980 Report, 1981). The villager is interested in his social and religious life as well as his physical well being (Holdcroft, 1978; Srinivasan, 1977). It is also agreed that development must have an early success easily recognized by the village people. This early success occurs most effectively in the area of agriculture (Bunch, 1982).

There needs to be a compromise between the biological and social scientists (IADS 1980 Report, 1981). Without the cooperation of these two areas it is feared that development on the whole will continue to be

fragmented and will be done in a piecemeal approach (Wittwer, 1977; Shields, 1967). This fragmented approach has been one of the major factors limiting rural development. When community development is seen as projects only, and not as a part of the total development plan, the projects may succeed for awhile, but soon the lack of development in the other areas will again drag the project down to its former level (Nesman, 1981).

Researchers and planners associated with all disciplines must understand the workings of the others in this complex process (Wittwer, 1977; IADS 1980 Report, 1981; Nesman, 1981; Kristensen, 1974; Poats, 1972). Village development will never become effective until specialized groups learn to cooperate in planning, programing, implementing and evaluating the development process (Shields, 1967). This cooperation between disciplines must extend from the highest level in the developmental chain to the lowest level in the village (Shields, 1967). Jealousy and unwillingness of personnel to cooperate are considered to be among the major blocks preventing rural development from reaching its goal for improvment of living conditions of the rural poor (Nesman, 1981). When rural programs are meeting the total needs of the community, one project leads to another and the community tends to need less and less outside help (Nesman, 1981).

Since so many rural development programs have been unsuccessful, development planners are becoming more aware that the rural poor must be involved if village-level projects are to have an increased chance of success (Poats, 1972; Pigozzi, 1981). Village level participation does not guarantee success but greatly increases the chances of it (Nesman, 1981). Village politics and power structures, if not understood, can

doom a project before it has a chance to succeed. Programs should be simple enough for the local people to manage and to meet the changing situations in the village (Mechan, 1978; Bunch, 1982; Shields, 1967; Bunch 1981; Pigozzi, 1981).

Planning is an essential part of rural development (Nesman, 1981). One problem that has become evident is the question of who should do the planning. Programs cannot be imposed upon the rural poor from the outside and be expected to succeed without great difficulties because planning imposed from the top down tends to stifle the development process and, consequently, the projects (Wittwer, 1977; Bunch, 1981; Mechan, 1978). In theory the community should be involved in all the projects and programs in the village, but in practice this has not often occurred (Shields, 1967; Nesman, 1981). Many development agencies have problems accepting the idea of participation by the local people (Pigozzi, 1981). Villagers want to participate in solutions to their problems, but the process is slow and some outsiders still think they know what is best for each villager (Nesman, 1981). In order for a project to succeed, local participation must take control from the development agencies, and give responsibility to the people who must ultimately have it (Pigozzi, 1981). When the community is totally involved in the development programs a feeling of unity and ownership occurs and the chances of success are increased greatly (Nesman, 1981; Holdcroft, 1978; Mosher, 1981; Bunch, 1981). Villagers should be involved in all stages of the development process including village-level investigations, plans, implementation and evaluation of sections of each program and project (Pigozzi, 1981; Nesman, 1981). When projects seem to falter or are not continued, failure is often due

to the lack of local village participation in all phases of the project (Pigozzi, 1981). Development programs working with the poor should be people oriented, should include local participation and help to develop a strong local organization (Mechan, 1978; Ntiri, 1980; Mosher, 1971; Pigozzi, 1981).

Giving to the poor and doing things for them that they could do for themselves are two common errors made in development. This type of paternalistic development should be avoided (Bunch, 1982; Nesman, 1981). Some programs justify "give-aways" by saying they are faster than training people, they win the people over, or they help people who are so poor that they cannot help themselves. Give-away programs often divert people's attention from other political or institutional problems (Bunch, 1982). These hand outs offer a short term solution to what are often long term problems dealing with power structures, political constraints, and unequal resource distributions. Justice demands that outside agencies aid the people in developing themselves so that they can keep their dignity and self respect by earning an adequate living and by allowing them to share in the economic and social resources of their country. There is often a fine line differentiating whether things should be given to people or whether they should not; but it must be remembered that if a person can obtain on his own what is being given to him, or if he can do what is being done for him, then paternalism is taking place and this creates a dependency on continuing assistance (Bunch, 1982). The outsider almost always wants a part of the action in the village, and this outside involvement pulls the project further from its goal of helping the villager to help himself (Mechan, 1978). Development is "people building" and people must be viewed as the heart

of the matter (Nesman, 1981), emphasizing the human side over the technical side (Rhoades, 1977; Shields, 1967); indeed, the development process is often more important than the results of the process (Pigozzi, 1981).

#### The Village Extension Agent and Village Leader

The village extension agent and his counterpart, the village leader, have been identified as the most crucial members of the development process at the village level (Shields, 1967; Benor, 1977). Normally the village extension agent should not be a generalist, though a few development personnel would disagree with this (Nesman, 1981). The generalist versus the specialist dilemma has been a problem since the beginning of development programs, and only in recent years have the "experts" really begun to see that neither extreme will work (Holdcroft, 1978; Ntiri, 1980; Wharton, 1976). To achieve permanent results the extension agent should train local leaders in specific skill areas of agriculture, health, or others, as identified by the villager (Nesman, 1981). The extension agent must be viewed as someone with something to offer the village and should have the skills that the village needs and desires (Benor, 1977; Shields, 1967; Bunch, 1981). Villagers want to see projects successfully completed and this normally requires an extension agent with technical skills to train them and oversee the progress of the projects.

The extension agent, besides having a technical skill area, must also have competency in human relations, teaching methods, and in the ability to work with groups (Shields, 1967; Nesman, 1981; Benor, 1977).

The extension agent must also reflect the principles of village participation (Nesman, 1981). This makes the extension agent a cross between the generalist and the highly skilled technician. For an extension worker to maintain a high level of performance requires frequent in-service training (Benor, 1977).

There are many types of skilled village extension agents. Some have skills in agriculture, health-nutrition, construction, education-leadership training, and many other areas. The type of skill depends upon the needs of the village; these should be determined by the villagers.

The extension agent is a crucial link between the research-administration level and the village (Benor, 1977). He must have a clear understanding of his role and objectives and must be well informed by his superiors. He must also be able to keep up with pertinent activities going on in the village (Benor, 1977). A major problem that can sometimes arise is the tendency of the extension agent to attend to the needs of his supervisors first, and then those of the villagers (Holdcroft, 1978). When the villagers think the extension agent is placing his supervisor's welfare above theirs, they lose confidence in him and withhold their cooperation.

Besides being the most important links in the development chain, the positions of extension agent and village leader are also considered the weakest (Castillo, 1976). Training for both the village extension agent and the village leader is of the utmost importance and should be appropriate and done in the normal work setting as often as possible (Shields, 1967). All training should be relevant to the village and the importance of leadership training should never be overlooked (Nesman,



1982). Another important factor in developing the chain of responsibility is the selection of these two workers. Not everyone is cut out for these two important roles (Holdcroft, 1978; Ntiri, 1980; Bunch, 1982).

The village leader is one of the villagers, male or female, selected by the village to be trained in agriculture, health, construction, or other specific skill areas (Shields, 1967; Nesman, 1981). The village leader should attend formal and nonformal training courses given by the extension agent and other appropriate personnel or agencies. As a loyal village member, he should learn all he can and then help the extension agent train other interested villagers in his skill area (Shields, 1967; Bunch, 1982). The village leader should remain a permanent asset and resource person in his community (Holdcroft, 1978). At any one time there may be several of these village leaders working in one village on different development projects. Both the extension agent and his counterpart, the village leader, should view their skill area as one part of a multifaceted process and should try to cooperate at all times with the many other extension agents and village leaders who may be operating in the village. Unity among all the development personnel must be a major goal in the success of any development project (Nesman, 1981).

#### Agriculture in Development

The percentage of those involved in agricultural production in the First World has been decreasing while the actual number of farmers in the Third World has been increasing. Since one-half of the entire world population is still involved in farming (Ntiri, 1980), and since much of

the farm land in the First World may well have reached or is now reaching maximum production in grains, for grain yields to increase drastically in the near future, such an increase must come from the small farmer in the Third World (Wharton, 1976).

Most people involved in development see small farm agriculture as the base or starting point for village development. That is not to say that agriculture is more important than health, education, literacy, or other important areas, but village life is so closely tied to agriculture that this is usually the easiest area from which to start the development process. From there the process can expand into other areas (Bunch, 1982).

Agricultural development in the Third World faces many problems. Two of the major constraints limiting the improvement of the farming sector are (1) unequal distribution of farm lands, farm services and wealth, and (2) inappropriate farming equipment and supplies used by the small poor farmers (Pigozzi, 1981; Kristensen, 1974; Bradford, 1974; Bunch, 1982; Wharton, 1976; Castillo, 1976). In Latin America and other parts of the world, irrigation water and its control are considered additional major problems (Mechan, 1978; Ntiri, 1981).

The need for some form of land reform nearly world wide is also considered one of the most complex problems development planners face (Kristensen, 1974; Mechan, 1978). Farmers must have land available to farm and in Latin America poor small farmers generally wish to own their own land as opposed to renting it (Mechan, 1978). Land ownership gives the farmer a sense of security, gives him the desire to improve the land, and is the resource which he will pass on to future generations.

To meet many of these problems in the Third World, agricultural

scientists must turn from their emphasis on large farm research to an orientation toward small farm enterprises (IADS 1980 Report, 1981; Ensminger, 1976). Agricultural research needs to understand in its entirety the rural Third World village. The new technological advances are not generally available to poor small farmers which was demonstrated in the way the green revolution assisted the affluent farmers more than it did the poor small farmers (Kristensen, 1974). Development workers need to find appropriate methods of extending the benefits of new technology to all of the rural population. In Latin America, studies have indicated small farmers are actually more receptive to new technology than are most of the large landowners (Bradford, 1974).

The small farmer often will achieve a greater output per acre than the large farmer when both are assisted equitably (Rhoades, 1977; Bradford, 1974; Bunch, 1982; Wittwer, 1977). There are advantages in both large and small farming operations. The high capital, low labor intensive, large mechanized farm generally produces a slightly less expensive product than the high labor, low capital intensive small farm of the Third World. The major advantage of the labor intensive farm is its ability to reduce unemployment (Bunch, 1982). Appropriate, reasonably priced, technically effective and dependable supplies and equipment need to be developed for the small farmer (Kristensen, 1974; Mosher, 1966; Oluwasanmi, 1976). Such factors as limited purchasing power and high availability of manual labor must be taken into consideration. Mechanization, as the North American knows it, is inappropriate for the small farmer in the Third World.

Every farmer around the world must have access to farm markets where he can receive a reasonable price for the sale of his farm

products. Studies have shown that fair prices are probably the greatest incentive for increasing production and improving production practices (Mosher, 1966; Benor, 1977; Wittwer, 1977).

When production increases it often places a heavy burden on the transportation system to and from farm markets. Without an adequate transportation system farm commodities cannot be taken to the market place and farm supplies, services and equipment are not able to move to the farms to keep pace with the ever changing technology of agriculture (Mosher, 1966). Increases in production and the availability of new technology may also indicate a need for farm credit. Studies have shown that farm credit is not essential to start agricultural development but when used properly it can accelerate the development process considerably (Mosher, 1966).

Even though credit can stimulate development, it should not be offered unless it is needed. When credit is given to poor small farmers it should not exceed more than fifty to one hundred dollars at a time per farmer, because it is possible that in the past the farmers have become accustomed to handouts from different agencies, and therefore they may view such loans as another no-return handout (Bunch, 1982). Understanding that such a problem exists should help the development group see that credit should not automatically be a part of all development programs (Bunch, 1982).

Many farm cooperatives have been started and tried in the Third World with only a few real successes. The reasons for their failure have been attributed to many causes, but it appears the main reason for failure is the lack of management skills on the part of the small farmers. Without outside managerial help, the failure rate has been

very high (Khan, 1978).

### Education in Development

Education in the Third World has quite often been labeled "the ticket from poverty to riches". Many in the Third World who have become educated insist that their education should entitle them to high level jobs with elevated salaries (Poats, 1972). As more and more people are becoming formally educated, they are finding to their dismay that there are fewer and fewer high paying jobs (Castillo, 1976).

In the rural areas of the Third World educational opportunities are limited with completion of the primary grades as the ultimate educational experience for the masses (Poats, 1972). It is rare for Third World countries to offer even complete primary education to the rural children within walking distance of their homes. Because of this lack of opportunity, very few poor villagers ever complete the secondary grades. The Third World residents who do, are usually from the wealthier farm or small business families (Poats, 1972). The best schools, as well as the majority of schools, are almost always located in urban centers (Khan, 1978; Poats, 1972). The fact that most of the schools are in the cities influences who will get an education, and thus limits the number of teachers who would want to teach in the rural areas (Poats, 1972). By its very nature, the present system of education tends to create an unequal income distribution, thus further handicapping the rural poor (Evans, 1981). And since educational needs for the urbanite and rural villager are often very different, even more pressure is placed on the already over burdened educational system (Hoxeng, 1973).

There are 700 million adults in the world who neither read nor write. The majority of these live in the Third World (Kristensen, 1974). Most Third World children who enter school drop out before they reach literacy (Poats, 1972). Education toward literacy should be an important part of the development process but it should not be the only major area, because education is not a "cure all" for development but is only one important part of its overall process (Shields, 1961, Nesman, 1981). Community development should center around educating and organizing the village with as much local participation and initiative as possible (Nesman, 1981).

Since illiteracy is so common, nonformal education should play the major role in village adult education (Pigozzi, 1981; Poats, 1972; Bradford, 1974; Nesman, 1981; Srinivasan, 1977). Nonformal education has been defined as an organized systematic teaching process carried on outside the formal graded school system (La Belle, 1981). Development planners have found nonformal education to be an acceptable method of training and educating the uneducated villagers. To those people who have not, or cannot obtain a formal education, nonformal education could be the only available source for skill learning (Pigozzi, 1981). Nonformal education is education of involvement and participation by both teacher and student (Pigozzi, 1981; Nesman, 1981). It is student centered and uses the village setting as a point of reference and emphasis (Srinivasan, 1977). The student learns to be a participant and learns he or she has a great deal of knowledge which, when added to the experiences and knowledge of his fellow villagers, can often solve village problems (Ntiri, 1980; Srinivasan, 1977). Illiterate villagers adapt well to methods of nonformal education since it treats them as

worthy individuals and not as mere objects, and places responsibility for learning on both the teacher and the student (Srinivasan, 1977).

Many people involved in development think that education of the people is the most vital asset a country has (Poats, 1972; Schumacher, 1973). Education should not be just for the elite, but should be available to the total population (Ntiri, 1980). Some say development should not start with goods and material things but with education of the people to produce the total man both materially and spiritually (Nesman, 1982; Schumacher, 1973; Wittwer, 1977; Mehan, 1978).

In comparing their own First World developments with that of the Third World, development planners often do not realize or take into account the fact that progress and development in the First World evolved over a long period of time and consisted of a development of educational methods and techniques laboriously and slowly acquired and refined until they suited the country (Schumacher, 1973). The educational system of the Third World countries should not merely copy First World systems since the situations and conditions are not identical. Too often it is thought that development can be planned and created without allowing it to evolve through the people and their education (Schumacher, 1973). All too often governments want their educational systems to supply quick answers to pressing concerns (Poats, 1972).

Poverty is not caused by a lack of resources and materials, but it is a result of deficiencies in education, organization and discipline (Schumacher, 1973). Providing people with adequate educational opportunities along with helping them learn how to organize themselves, as well as things, and helping them learn to be more disciplined in

their actions, thoughts, and systems will lead to the process of development (Schumacher, 1978). Because acquiring education, organization, and discipline is not a matter of jumping from one point to another, but is a gradual long term, continuing process, successful development is difficult to plan (Schumacher, 1973).

Developers have assumed that if the potential leaders in the Third World could be educated in the United States' university system and then returned as leaders to their own countries, development would be improved. >Some of this education has worked out well, but much of it has turned out to be inappropriate to the Third World Countries for many times when rural youth are taken from their villages to be educated, they do not return after graduation but choose instead the available opportunities in urban areas (Castillo, 1976; Rhoades, 1977). Sometimes Third World governments spend large sums of money on their people for formal education and degrees which in the end prove meaningless in the reality of their situation (Bradford, 1974).

<In most Third World countries, vocational and agricultural schools and their graduates are considered to be of lower status than those of other schools (Hathaway, 1976; Wittwer, 1977).> Normally students only choose these types of schools when they cannot enter the general education system leading to degrees in law, humanities, and other fields, which results in poor quality vocational training as well as an inadequate number of quality vocational instructors (Poats, 1972). Another problem that has troubled vocational education has been the lack of coordination of training to match the job market (Poats, 1972). More attention must be paid to improving vocational education and developing curriculum and faculty that meet the needs of the country. Care must be



taken not to set up duplicate copies of United States or other First World schools since these have proven to be incompatible in many situations (Poats, 1972; Hathaway, 1976; IADS 1981 Report, 1982). Most school systems in the Third World have not evolved over a period of time but have been thrust into existence as, in the case of higher education, copies of the United States Land Grant system only to find that the system is not completely appropriate to the country and its cultural and social structure (Hathaway, 1976). Universities in each Third World country need to research and design educational systems which are appropriate for their own countries and circumstances.

#### Health in Development

Most of the villages in the Third World have neither potable water nor adequate sanitary facilities. Without these two important items, overall village health cannot improve to any great degree, as much of the Third World has at least short periods of heavy rains, which spread untreated fecal material over large areas, contaminating both soil and surface water. Proper diets and nutrition are very important to village health but no amount of nutritious food can permanently overcome the effects of internal parasites and diseases that are spread by lack of proper sanitary facilities and potable water.

The experience of CEDEN in Honduras has been that the villagers at first want water near their homes, but they have no real interest in sanitary facilities. After the villagers have received a few hours of nonformal instruction in health and nutrition and they have seen internal parasites in a fecal sample and organisms in a drop of surface water under a microscope, they have a complete change of mind. When

villagers from nearby villages who have potable water and latrines tell other villagers that sickness and disease have dropped to very low incidences, the new villagers almost always indicate a readiness to start work on potable water and latrine projects. Of the hundreds of villages that CEDEN has worked in, few villages have been found that have less than a 100 percent incidence of internal parasites in their preschool age children (CEDEN, 1980).

As villages improve their water, sanitary facilities, and diets, infant mortality decreases. The death rate among children in the Third World is much higher than in the First World (Poats, 1972). It appears that as farm animals are kept outside the home and as cement or wooden floors replace mud floors, infant mortality declines (CEDEN, 1980). Education of village women also plays a large role in improved sanitation, diets, and overall home environment.

Little is known about the role of the home environment in the physical and mental health of the village family. Farmers along the north coast of Honduras who are involved in projects with CEDEN are beginning to invest in cement block and tin roof houses as their incomes increase, thereby improving the environment in which their families live.

Throughout the world the best medical services are located in the major cities. The extreme of this is evident in the Third World. In a small village there are usually no medical services and only very limited amounts of medicines. Since villagers are not trained to dispense these medicines no one is really sure of their correct usage (Khan, 1978).

Most groups involved in community development realize the

tremendous population growth that has occurred among the rural poor. In 1850 the world population was approximately one billion. By 1930 it had reached nearly two billion, and by 1980 it was estimated at four billion (Ntiri, 1980). At present, seventy million people a year are being added to the total world population (Ntiri, 1984). Approximately 70 percent of this total population lives in rural areas (Ntiri, 1980).

The population growth rate must be reduced to enable world food problems to be solved (Borlaug, 1976; Wittwer, 1977). It has been shown that as all people of a country share in economic and social benefits, birth rates automatically go down (Bradford, 1974). When the gross national product for a country goes up, and there is still an extremely unequal distribution of the wealth, the birth rate remains high, resulting in continued poverty and hunger (Bradford, 1974).

Development personnel for years had a difficult time understanding the reason for large families among the very poor. Studies have shown that the poor view large family size as a security measure against an unknown future (Bradford, 1974). There is a direct correlation between poverty, illiteracy, malnutrition, poor health, and high birth rates (Bradford, 1974). Family planning, though important, has had only limited success among the poor as one would expect given the above information (Poats, 1972). When adequate health care, education, employment, and family planning are available together, family size usually decreases (Bradford, 1974). Other studies have shown that village women who finish primary school, average two less children in their families than those village women who did not finish grade school (Bradford, 1974).

All too often health care programs have been modeled after the

systems used in the First World. Since the situations are totally different, successes have been very limited (Poats, 1972). Health care programs cannot be solely judged on a cost benefit criterion because little research has been done on health care systems for the Third World (Poats, 1972). Health care research must improve its delivery system as well as improving the training of medical doctors and nurses. Lack of health services in the rural sector has been one of the major reasons for migration of the poor rural families to the cities and every development group should take this important area into account before implementing any programs (Poats, 1972).

#### Research in Development

When most development planners talk about the need for more research in development, the speciality area or discipline usually dictates the focus for discussion. If an agriculturist is talking, he usually refers to research in the area of agriculture and when educators, rural sociologists, or other participants speak about research, they normally are referring to research in their areas.

Since most of the development planners are either products of our universities or are university staff personnel, they are accustomed to thinking in terms of their own disciplines, and seeing problems and answers within the realm of their specialties. For example, when working with poor nutrition in children, the specialist would see the problem and solution almost always solely from the point of view of his discipline (Kristensen, 1974). The agronomist might answer the problem of poor nutrition through increasing soybean production; the health specialist would see the answer in sanitary facilities; the fish expert

would see fish ponds as the answer; the rural sociologist might see the need for a change in some village power structure; and the educator would see the problem as a lack of education. It is possible they all are correct, but none sees the total picture.

Appropriate research should be the basis for decisions concerning development. There are many social theories concerning the development process, but the theorist has a difficult time articulating and putting his theories into practical terms so that they work at the village level (Nesman, 1981).

There is an urgency for practical and tested research in the area of constraints limiting the development process, because they are major limiting factors in development (Benor, 1977; Ensminger, 1976; Hathaway, 1976; Mosher, 1981). There is a need for research in all the disciplines involved in development and this research should be based on inter-disciplinary relationships (Kristensen, 1974). That is to say, agricultural research should be aware of how it affects health, education, and other fields; the converse also applies. Educational research in the Third World has been weak (Khan, 1978), whereas research in agriculture, health, and rural sociology has made many advances (Wittwer, 1977). The weak areas in the different disciplines have developed because of the lack of interdisciplinary coordination and lack of appropriateness in solving village-level problems (Wittwer, 1977).

A major problem in research is that the researcher is usually not directly involved in village development programs and those who are involved in development projects do not take the time to gather adequate data so that appropriate research can be implemented (Bunch, 1982). The researcher often wants to stay on the experimental station or does not

want to leave his office for any length of time. These researchers are usually well educated and considered to be in the upper class or the elite. Village-level work is difficult and requires a sacrifice on the part of the researcher which he is often unwilling to make.

At present there are many theories but little concrete village-level research. Rural villagers are suspicious of outsiders and to do effective village research this constraint must be overcome. Village research must enjoy the cooperation of the villager if it is to be successful. Since the researcher is most often from the outside, usually of a higher social class, and often under time constraints, the important step of village-researcher cooperation is missing. Some method must be devised to overcome this problem. Many development researchers have looked at the possibility of using the extension agent as the data collector, but unless this job can be worked into his normal routine (which is doubtful) this additional responsibility will just add more work to an already overburdened village worker (Benor, 1977).

#### Evaluation in Development

Evaluations of development projects are very difficult since not many adequate indicators of program success have been developed (Opler, 1954; Mehan, 1978). Efforts need to be made by all those involved in development work to gather data that can be used to correctly evaluate the success or failure of development programs (Castillo, 1976). It is important that each program be evaluated by all those involved in the process as well as by some outside evaluators who have not been directly involved in the programs (Bunch, 1982; Nesman, 1981; Mehan, 1978). It must also be remembered that the villagers should be involved in this

evaluation process (Pigozzi, 1981; Bunch, 1982; Nesman, 1981).

Successful evaluations are usually made only after sufficient planning has taken place. The need for baseline data and appropriate measurable objectives cannot be over emphasized. Without these, evaluations usually are not very useful since no one knows where the project started and where it is to go. Measurable objectives define the goals in quantitative terms helping the planners and village workers know toward what goals they are working.

### Summary

Community development has gone through many changes during the last thirty years as development personnel have tried to discover the most effective methods to successfully solve village development problems. A great deal of money has been invested in trying to rid the world of hunger with only limited success. The gross national product has been raised for nearly every country in the world through industrialization and improved agricultural production but this has not changed the situation of the Third World rural poor. One would expect that the increased gross national product would increase the general welfare of the total population, but this has not been the case. Studies now indicate that poverty and hunger can be overcome only if assistance is extended directly to the poor. The idea that the growth in the wealth of a country is always shared equitably among the people is false. The develop-planners assumed that improved wealth of a country would "trickle down" to the poor.

Not only has the "trickle down" theory not worked, but the top-down planning by governments and international specialists has been faulty.

Without the villager's personal involvement in the development process there have been few successful projects. The lack of village involvement in planning, implementing and evaluating these projects has been identified as one of the major constraints in the development process.

Besides village participation, problems of coordination and cooperation among the different specialties or disciplines involved in village development have been found to limit program success. Developmental workers in all fields must learn to work together both in and outside the village. Research must be aimed at answering village problems and it should be appropriate to the village setting. Other constraints on village development are the lack of competent village level workers and well trained village leaders. If these two village level workers are to be successful they must be better trained and continually receive adequate and appropriate training. Village level education must also be improved if illiteracy in the Third World villages is to be alleviated.

To overcome these problems governments and development agencies are requiring that programs to help the poor must be aimed directly at solving the problems at the village level. The future will tell if this new thrust towards reaching the poor will be successful.



## CHAPTER III

### DESIGN AND METHODOLOGY

#### Introduction

This chapter deals with the description of the location of the regions and the procedures used to collect and analyze the data for this study. An appropriate questionnaire was developed to ascertain perceptions on a number of selected items dealing with development and to compare them among three levels in the development chain.

#### The Regions of Study

##### La Ceiba Region

La Ceiba, one of the five largest cities in Honduras, is located in the province of Atlantida and is situated on the north coast of Honduras along the Caribbean Sea. This region is very tropical and has a rainfall of more than one hundred inches per year. One of the world's largest banana companies is headquartered in La Ceiba and the area is very dependent upon the company for employment and other developmental aspects. Only a small fraction of the population in the province of Atlantida is able to work for the banana company or other support businesses. Most of the rural villagers are involved in small scale farming, and their income is lower than that of an employee of the banana company, with the wages for employment of the banana company set

by union contracts. The company's starting field laborer's wage in 1980 was about \$4.00 per day. In contrast, the normal average field wage in rural villages was about \$2.00 per day.

Like most of the villagers in Honduras, those in the La Ceiba region are poor, with many health, economic and social problems. Since the area is very tropical and wet, the common tropical diseases of malaria, dysentery, internal parasites and other diseases are very prevalent. Most of the villages do not have potable drinking water or sanitary facilities.

#### Reducto Area--Part of the Tegucigalpa Region

Tegucigalpa is the capitol city of Honduras and is located in the province of Morazan. The Reducto area is approximately sixty miles from Tegucigalpa and requires a drive of two to three hours over some of the best and worst roads in Honduras. It is very remote, mountainous, and is only semi-tropical, having moderate to heavy rains for about three months of the year, slight rain for another two to three months and very little or no rain for the remaining six months of the year. The employment in this area is based mostly on small scale farming, gathering turpentine from pine trees and some limited work in sugar cane fields.

As in most of the other villages in Honduras, there is a great need for potable drinking water and sanitary facilities. Poor nutrition among the small children is extremely high, as well as the incidence of internal parasites. The yearly income for the average farmer in this area is below that of the average farmer in the La Ceiba region. Wages in this area for farm labor have not changed to any extent over the past

several years and have averaged between fifty cents to one dollar fifty cents per day.

### Population of the Study

This study was carried out from May 1983 through November 1983. The seventeen villages under study were those villages in Honduras receiving financial aid for development purposes from the Christian Reformed Church of North America. The study attempted to gather a twenty-five percent stratified random sample of all heads of household working with CEDEN in the seventeen villages as well as the total of all of the trained leaders and the CEDEN extension agents working in those same villages (Table I). Further clarification of the sampling procedure pertaining to villagers is to be found on page 44. The supervisors, directors and board of directors of CEDEN who were responsible for supervising, managing and administering the CEDEN development programs in the seventeen villages, as well as the five Christian Reformed advisory missionaries assisting CEDEN, made up another group in the study (Table I). Also included in this study were the board of directors and the supervisory and administrative staff of the Christian Reformed Church in Grand Rapids, Michigan (Table I).

The parameters of the target population at each of the three levels were established by use of the following criteria:

#### Level one

1. All respondents were members of the Christian Reformed Church of North America.
2. All respondents were active in the Christian Reformed World Relief Committee (CRWRC) either through direct employment or as members

TABLE I  
 FREQUENCY DISTRIBUTION OF TARGET POPULATION  
 BY DEVELOPMENT LEVEL

Development Level	Target Population	Interviews/Questionnaires Sought	
		N	%
U.S. Administrative Level			
U.S. CRWRC Board of Directors; Executive Committee Foreign Programs	7	7	100.00
U.S. CRWRC Board of Directors; Executive Committee Not Foreign Programs	13	13	100.00
U.S. CRWRC Board of Directors; Non-Executive Committee	26	26	100.00
U.S. CRWRC Administrators; Directly associated with Foreign Programs	7	7	100.00
U.S. CRWRC Administrators; Not directly associated with Foreign Programs	2	2	100.00
TOTAL	55	55	100.00
Middle Management Level			
Honduras CEDEN Board of Directors	6	6	100.00
Honduras CEDEN Program Administrators	10	10	100.00
Honduras CRWRC Foreign Advisors	5	5	100.00
TOTAL	21	21	100.00
Village Level			
Promoters	11	11	100.00
Village leaders/heads of households	43	43	100.00
Village heads of households	377	94	25.00
TOTAL	431	148	34.34

of the board of directors.

Level two

1. All respondents were actively involved in village development work in Honduras.

2. All respondents worked mainly in supportive roles outside the village in administrative, supervisory, or advisory positions.

Level three

1. All respondents lived or worked as villagers or village promoters in at least one of the villages under study.

The study attempted to include the complete population except for the twenty-five percent stratified random sample of villagers in the seventeen selected villages. The names of all the heads of household who qualified for each village were placed in separate bowls and a twenty-five percent stratified random sample was drawn from each village bowl. The twenty-five percent random sample of villagers was made in the following manner:

1. All of the respondents were farmers in the villages.

2. All of the respondents were head of a household.

3. All of the respondents have been involved in at least one CEDEN development project.

Table II shows the population and the number of responses for each village. The table shows the total heads of households in each of the seventeen villages included in the study. Further, heads of households in each village involved with CEDEN are shown with respective percentages. In the fourth column the number and percent of involved household heads interviewed is shown. The percent established to be interviewed was twenty-five percent. However, due to the fact that some

TABLE II  
VILLAGE POPULATION AND RESPONSES

Village Name	Total heads of household in the community	Heads of household involved with CEDEN	Percent of households involved with CEDEN	Involved heads of households interviewed		Involved village leader/heads of household interviewed		Total interviewed	
				N	%	N	%	N	%
Las Tablas	40	14	35.00	7	50.00	3	21.43	10	71.43
Terrero de San Pedro	38	18	47.37	10	55.56	4	22.22	14	77.78
Coato	200	50	25.00	4	8.00	4	8.00	8	16.00
Los Terreritos	30	18	60.00	6	33.33	1	5.56	7	38.89
Reducto	50	20	40.00	7	35.00	2	10.00	9	45.00
Rio Grande	30	16	53.33	5	31.25	2	12.50	7	43.75
Terrero Blanco	57	18	31.58	5	27.78	2	11.11	7	38.89
San Pedro	28	10	35.71	3	30.00	2	20.00	5	50.00
Ceiba Grande	62	18	29.03	8	44.44	2	11.12	10	55.56
Cerro Colorado	12	8	66.67	6	75.00	1	12.50	7	87.50
Limeras	104	60	57.69	10	16.67	5	8.33	15	25.00
Las Cruitas	37	20	54.05	5	25.00	2	10.00	7	35.00
Lucinda	47	20	42.55	6	30.00	2	10.00	8	40.00
Lagunitas	31	22	70.97	5	22.73	2	9.09	7	31.82
Sombra Verde	57	27	47.37	5	18.52	2	7.41	7	25.93
Ceibita Way	129	41	31.78	6	14.64	5	12.19	11	26.83
Fortaleza de Leon	61	40	65.57	4	10.00	2	5.00	6	15.00
TOTAL	1,013	420	41.46	102	24.29	43	10.23	145	34.52

of the interviewers were overly eager to show a good return for a particular village, the percent of responses for certain villages exceeded the established twenty-five percent. For the five villages in which returns fell below the twenty-five percent established sampling, various factors may have been responsible including environmental phenomenon such as flooding and pressures of work schedules in certain areas.

### Instrument

A survey-type instrument on perceptions of importance and achievement of selected goals for village development was developed by the researcher for this study (See Appendix A). Each goal statement was measured on a zero (0) to five (5) Likert-type scale (0 = not important, 5 = extremely important, and 0 = not achieved, 5 = almost fully achieved). The questionnaire can be sectioned into four broad village development goal topic headings. These four development goal topics include; agriculture, health, education, and administrative/developmental. Questions 1, 3, 8, 10, 12, 14, 16, 18, 23, 25, and 28 deal with agriculture. Questions 6, 22, 24, 26, 30, 32, 33, 34, 36 and 38 concern health. Questions 39, 40, 41, 42, 43 and 44 concern education. The questions dealing with the broad area of administration and development theory are 2, 4, 5, 7, 9, 11, 13, 15, 17, 19, 20, 21, 27, 29, 31, 35 and 37. These four broad areas were used to compare the perceptions of the three levels of the development chain.

The questionnaire was given to the three levels of the development chain. To insure understandability, slight changes in headings were made to correspond to the different levels. The villagers and village

leaders answered the goal statements with a reference only to their villages, whereas the other respondents answered according to the villages under their supervision. As the level in the development chain rises, the number of villages under the respondent's supervision normally increases and the headings in the questionnaire reflected this fact.

Two additional questions were included in the questionnaire as an attempt to verify the information gathered on perceptions of goal importance and goal achievement. The first question asked each development level their opinion as to whether village agriculture, health, education, cooperation and standard of living had improved, stayed the same, or worsened over the last five years. A rating of three was used for improved, two for stayed the same, and one for worsened. The second additional question was an open ended question. This question asked the different development levels to identify the three major problems they felt confronted the villages. The answers to these questions were categorized into the four main developmental goal topic areas of the study; agriculture, health, education and administration/development. Each of these four topic areas were further broken down into sub categories.

The questionnaire was written in both English and Spanish since it was to be given to both English speaking Canadians and U.S. Americans as well as Spanish speaking Latin Americans. The content and face validity of the English version was reviewed by a panel of six English speaking experts as well as by three of the faculty of the Department of Agricultural Education of Oklahoma State University. The panel of experts consisted of: one person who had administered survey



instruments around the world for more than ten years; one was an agronomist with more than twenty years experience in agricultural development; one was an agricultural economist with four years of foreign experience; one was a sociologist with some experience overseas; and one was a community education specialist.

After the English questionnaire had been developed, a translation into simple Spanish was made by a Latin American with ten years of rural Latin American experience. The questionnaire was then tested on five Latin American students, three of whom were from Honduras. A special effort was made to translate the English version into easily understandable Spanish while at the same time keeping the content the same as the English version. This simple Spanish was especially important since some of those taking the questionnaire had a low reading ability. Every attempt was made to translate accurately from English to Spanish in order to insure validity of the data gathered.

Concerning the design of the instrument, the following assumptions were made:

1. The instrument was able to correctly measure the perceptions and judgements held by the three levels in the development chain.
2. The instrument was clear and understandable to adequately communicate the information being sought from each of the levels included in the study.

#### Collection of Data

Since Miss Betty Roldan, CRWRC health-nutrition missionary to Honduras, enthusiastically agreed to personally coordinate the data gathering in Honduras, she completed the first questionnaire. Miss

Roldan is a native of Chile and is bilingual in Spanish and English. Miss Roldan filled out the Spanish version of the questionnaire under the supervision of the researcher. After completing the questionnaire Miss Roldan conferred with two faculty members of the Oklahoma State University Agricultural Education Department, serving on the researchers committee, in order that they might instruct her as to how the questionnaire might be most effectively submitted to the village promoters. They also suggested procedures as to how promoters, in turn, might be instructed in methods and procedures of administering the questionnaire by interview to the village leaders and selected villagers.

Both the middle level members of the development chain in Honduras and the village level promoters filled out the questionnaire under the supervision of Miss Roldan. After the village promoters had completed their questionnaire they were trained by Miss Roldan to administer the questionnaire by the interview method to the village leaders and the selected villagers. To collect the data from the villagers and village leaders, a face-to-face interview method had to be used. This was the only part of the population that required an interviewer since these villagers ranged from semiliterate to illiterate. The CEDEN promoters gave the interviews to the villagers and village leaders after they had filled out their own questionnaires. The questionnaire was also sent to Grand Rapids, Michigan, to be filled out by the Board of Directors of CRWRC and the management and administrative staff of CRWRC. A cover letter was sent along with each questionnaire explaining the purpose of the study and how to complete the questionnaire.

## Analysis of the Data

The following is a description of how the data was analyzed. A Likert-type scale was used in the questionnaire with categories ranging from "extremely important" to "not important" and "almost fully achieved" to "not achieved". The question concerning the present status of agriculture, health, education, village cooperation and standard of living was given categories of "improved", "stayed the same" or "worsened". The open ended questions allowed the respondents to list the major problems they felt were confronting the villages and these answers would be reported as frequency counts, and percentages.

To permit statistical treatment of the data for importance categories and achievement categories, numerical values were assigned to the response categories as shown in Tables III and IV.

To permit statistical treatment of the data for village improvement categories, numerical values were assigned to the response categories as shown in Table V.

In evaluating the data for the importance and achievement mean scores, two criteria were arbitrarily chosen: (1) any mean score for any item in a given category which fell below 2.50 was considered to be notable from the standpoint of being considered a critically low score; and (2) whenever a difference in mean score between development chain groups or between importance and achievement within development chain groups in any category is determined to be two (2.00) or more, this was considered to be a notable difference. Further clarification of the meaning of the term notable difference can be found in the presentation of definitions in Chapter I.

TABLE III  
 STATISTICAL TREATMENT OF THE DATA FOR  
 IMPORTANCE CATEGORIES

Response Categories	Scale Numerical Value	Range of Actual Limits for Categories
Extremely Important	5	4.50 - and above
One category below Extremely Important	4	3.50 - 4.49
Two categories below Extremely Important	3	2.50 - 3.49
Three categories below Extremely Important	2	1.50 - 2.49
Four categories below Extremely Important	1	0.50 - 1.49
Not Important	0	0.00 - 0.49

TABLE IV  
 STATISTICAL TREATMENT OF THE DATA FOR  
 ACHIEVEMENT CATEGORIES

Response Categories	Scale Numerical Value	Range of Actual Limits for Categories
Nearly Fully Achieved	5	4.50 - and above
One category below Nearly Fully Achieved	4	3.50 - 4.49
Two categories below Nearly Fully Achieved	3	2.50 - 3.49
Three categories below Nearly Fully Achieved	2	1.50 - 2.49
Four categories below Nearly Fully Achieved	1	0.50 - 1.49
Not Achieved	0	0.00 - 0.49

TABLE V  
 STATISTICAL TREATMENT OF THE DATA FOR  
 IMPROVEMENT CATEGORIES

Response Categories	Scale Numerical Value	Range of Actual Limits for Categories
Improved	3	2.50 - and above
Stayed the Same	2	1.50 - 2.49
Worsened	1	0.50 - 1.49

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

#### Introduction

The purpose of this chapter is to describe the perceptions concerning village development and development problems as held by the three levels in the development chain. The three levels in the development chain are: (1) U.S. Administrative Level; (2) Middle Management Level and; (3) the Village Level. The perceptions under study were the importance and achievement of selected village developmental goals as well as the perceptions concerning village improvement. Finally, this chapter will analyze the identified problems as seen by the respondents of the three development levels.

#### Background of the Population

The population of this study included twenty-two U.S. administrative level, nineteen middle management level, and one hundred fifty-six village level respondents. The twenty-two U.S. administrative personnel worked for the Christian Reformed World Relief Committee (CRWRC) as either members of the CRWRC Board of Directors or as CRWRC administrative staff. The nineteen middle management level personnel were composed of incountry national CEDEN Board members, administrative or supervisory personnel, plus foreign advisers. The one hundred fifty-six village level personnel consisted of CEDEN extension agents

called promoters, village trained technical leaders, and villagers. The U.S. CRWRC administrative staff all live in the U.S. or Canada and the middle management and village level category all live in Honduras.

#### General Characteristics of Respondents

The survey instrument contained forty-six questions plus four items of demographic nature. The demographic items asked for the respondent's name, community, occupation, and years associated either with CEDEN or CRWRC. The first forty-four questions were designed to obtain the perceptions of the respondents concerning importance and achievement for selected village development goals. Question number forty-five dealt with each respondent's opinion concerning whether selected village items had improved or not over the past five years. The last question was an open ended question asking for the respondent's opinion concerning the major problems confronting the villages under study. Not all questions were answered by all respondents, the "N" of different tables may vary. The largest variation in number of respondents (N) occurred within the U.S. Administrative Level. The number of respondents for the questions concerning the importance of the selected goal items ranged from twenty respondents to twenty-two respondents, the total possible respondents being twenty-two. The number of U.S. Administrative Level respondents for the questions concerning achievement were much lower than for the "important" questions. The total respondents possible was twenty-two but the achievement questions had a range of respondents of six to eight. From the comments made on the questionnaires it was apparent that the U.S. CRWRC Board members did not possess the necessary information to feel qualified to answer the achieved questions. The number of U.S.

Administrative personnel answering the questions concerning village improvement and major problems confronting the village were also low in number.

In Table VI the total questionnaires/interviews sought, number of respondents to the questionnaires/interviews, and the percentage of those responding to the questionnaires/interviews are presented by development level. The twenty two respondents from the U.S. Administrative level represent forty percent of the total. The nineteen respondents at the Middle Management Level represent 90.47 percent of the total Middle Management Level personnel. At the Village Level the one hundred fifty six respondents represent 105.40 percent of the planned sought village level group. The reason for the overage at the Village Level is due to an over sample of some villages. Checking Table II in Chapter Three will show which villages were over sampled and which villages fell below the sought twenty-five percent sample. This item was beyond the control of the researcher.

Presented in Table VII are the average years associated with CEDEN or CRWRC according to development level. The U.S. Administrative Level respondents had been associated with CRWRC/CEDEN for an average of 4.63 years whereas the Middle Management Level respondents had a mean score of 4.47 years associated with CEDEN or CRWRC. The village level workers had an average of 2.30 years associated with the CEDEN/CRWRC development programs.



TABLE VI  
 PERCENT DISTRIBUTION OF RESPONSES RECEIVED BY DEVELOPMENT  
 LEVEL AND BY SPECIFIC TASK PERFORMED

Development Level	Total Sought	Number of Respondents	Percent Responding
<b>U.S. Administrative Level</b>			
U.S. CRWRC Board of Directors; Executive Committee Foreign Programs	7	4	57.14
U.S. CRWRC Board of Directors; Executive Committee <u>Not</u> Foreign Programs	13	6	46.15
U.S. CRWRC Board of Directors; Non-Executive Committee	26	3	11.53
U.S. CRWRC Administrators; directly associated with Foreign Programs	7	7	100.00
U.S. CRWRC Administrators; <u>Not</u> directly associated with Foreign Programs	2	2	100.00
TOTAL	55	22	40.00
<b>Middle Management Level</b>			
Honduras CEDEN Board of Directors	6	5	83.33
Honduras CEDEN Program Administrators	10	10	100.00
Honduras U.S. CRWRC Foreign Advisors	5	4	80.00
TOTAL	21	19	90.47
<b>Village Level</b>			
Promoters	11	11	100.00
Village leaders/heads of households	43	43	100.00
Village heads of households	94	102	108.51
TOTAL	148	156	105.40

TABLE VII  
 RESPONDENT'S MEAN YEARS ASSOCIATED WITH DEVELOPMENT AGENCIES  
 (CRWRC OR CEDEN) BY DEVELOPMENT LEVEL

Development Level	Number of Respondents	Mean Years
A. U.S. Administrative Level	22	4.63
B. Middle Management Level	19	4.47
C. Village Level	156	2.30

Responses to Questions Pertaining to the Importance and Achievement of the Selected Agricultural Goal Items

The number of respondents and mean scores of perceptions expressing relative importance and achievement for selected Agricultural goals by the three levels in the development chain are reported in Table VIII. The weighted means found at the bottom of the table are the overall means and not the mean of means. The weighted mean was used to insure that each response was given equal weight. A Likert scale of zero (0) to five (5) was used to measure the degree of perceived importance and degree of perceived achievement for the selected agricultural goals. Zero (0) on the scale represented "not important" or "not achieved" whereas a rating of five (5) indicated a perceived value of "extremely important" or "nearly fully achieved." The closer the mean scores are to five the more important or achieved this goal is perceived and the

TABLE VIII

PERCEPTIONS BY THREE LEVELS IN THE DEVELOPMENT CHAIN AS INDICATED BY MEAN SCORES  
EXPRESSING RELATIVE IMPORTANCE AND ACHIEVEMENT FOR SELECTED AGRICULTURAL GOALS

Agricultural Goals Q#	U.S. Administrative Level				Middle Management Level				Village Level			
	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean
1. Farm land equally available to all farmers	22	3.73	8	1.63	17	4.41	17	3.00	155	4.69	155	2.55
3. Appropriate farm equipment locally available	21	3.57	7	2.43	19	3.89	18	2.56	154	4.51	152	1.83
8. Farm credit or loans repaid	22	3.86	7	3.00	18	4.28	19	3.47	151	4.57	149	3.12
10. Adequate markets available for sale of farm commodities	20	4.25	7	2.57	19	4.58	18	2.78	154	4.60	153	1.59
12. Fair prices available for sale of farm commodities	20	4.00	7	2.14	19	4.47	19	2.95	155	4.53	152	1.74
14. Adequate transportation available to and from farm markets	20	4.00	7	2.43	19	3.95	19	2.32	155	4.61	153	1.52
16. Results from agricultural research programs available to farmers (new varieties, pest control methods, etc.)	22	4.09	7	2.71	18	4.50	19	3.16	153	4.50	149	2.34
18. Farm cooperatives established	21	3.29	7	2.86	19	3.84	19	1.63	153	4.03	148	.87
23. Farm land improved (irrigation, drainage, removal of rocks and stumps, erosion control, etc.)	22	3.95	7	3.14	19	4.26	19	2.84	154	4.71	152	1.77
25. Appropriate farm supplies locally available	20	3.85	7	3.14	19	4.42	18	3.17	155	4.73	153	2.24
28. Adequate farm credit available	21	3.90	7	3.29	19	4.74	19	3.58	153	4.66	152	3.32
WEIGHTED OR GRAND MEAN		3.86		2.65		4.30		2.86		4.56		2.08

Q# = these numbers represent the question number as found on the questionnaire (See Appendix A).

closer the mean score is to zero the less this goal was perceived as important or achieved. The U.S. Administrative Level perceived the importance of the the total Agricultural goals as one category below extremely important (3.86). The Agricultural goal highest in perceived importance was "adequate farm markets" (4.25) and the lowest was "farm cooperatives" (3.29). The individual importance mean scores were evenly distributed except for the importance mean scores of "farm cooperatives" (3.29) and "appropriate farm equipment available" (3.57). The grand mean for all achieved Agricultural goals was two categories below almost completely achieved (2.65). The highest perceived achievement mean score was for "farm credit" (3.29) and the lowest mean score was for "available farm land" (1.63). These mean scores were evenly distributed except for the mean score for "available farm land" (1.63).

It should be noted that the number of responses (N) to the importance goals for this group is more than twice the number of responses (N) to achievement goals. From the comments made on the questionnaires it was apparent that the CRWRC board members did not have the needed information to answer the achievement questions and therefore did not feel qualified to answer them.

The Middle Management Level grand mean for importance for Agricultural goals was one level below the extremely importance category (4.30). The range of means for importance was from extremely important (4.74) to one category below extremely important (3.84). This group perceived "farm credit" (4.74) as the most important and perceived "farm cooperatives" (3.84) as the least important. The individual importance mean scores were evenly distributed. In the area of Agricultural goal achievement, the grand mean for the Middle Management Level was two

levels below the almost completely achieved category (2.86). The individual mean achievement goal items for Agriculture ranged from one category below almost completely achieved (3.58) to three categories below almost completely achieved (1.63). The highest perceived achieved Agricultural goal was "farm credit" (3.58) and the lowest perceived achieved Agricultural goal was "farm cooperatives" (1.63). The achieved Agricultural mean scores are evenly distributed except for the low score for "farm cooperatives" (1.63).

The Village Level grand mean for importance for Agricultural goals was in the top category of extremely important (4.56). The range of Agricultural importance goal means was from extremely important (4.73) to one level below extremely important (4.03). The highest perceived Agricultural importance goal was "appropriate farm supplies" (4.73) and the lowest perceived Agricultural importance goal was "farm cooperatives" (4.03). The individual importance means were evenly distributed except for the importance of "farm cooperatives" (4.03). The Village Level grand mean for achievement for Agricultural goals was three categories below almost completely achieved (2.08). The range of the mean scores was from two categories below almost completely achieved (3.32) to four categories below almost completely achieved (.87). The Village Level individual means scores for achievement were widely distributed as can be seen in Table VIII. The highest perceived Agricultural achieved goal was "farm credit" (3.32) and the lowest achieved goal was "farm cooperatives" (.87). This group almost consistently perceived all Agricultural importance goals higher and achievement goals lower than the other two groups.

When comparing the grand Agricultural means among the three levels,

the U.S. Administrative Level and the Middle Management Level both perceived the importance of the agricultural goals as being one category below extremely important and the achievement of the Agricultural goals as being two categories below almost completely achieved. In contrast the Village Level perceived the importance of the total Agricultural goals as extremely important and that the achievement of these goals as being three categories below almost completely achieved.

Responses to Questions Pertaining to the  
Importance and Achievement of the  
Health Goal Items

The number and mean scores of perceptions expressing relative importance and achievement for selected Health goals by the three levels in the development chain are reported in Table IX. The U.S. Administrative Level perceived the importance of the total Health goals as one category below extremely important (4.02). The range of means for the Health importance goals was from extremely important (4.76) to two categories below extremely important (2.50). The highest perceived importance Health goal was "reducing child mortality" (4.76) and the lowest was "adequate recreational facilities" (2.50). There was a wide distribution of mean importance scores as perceived by this group. Two mean scores fell in the category of extremely important, seven scores were evenly distributed over the entire limits of one category below extremely important and one score fell in the upper limits of two categories below extremely important. The U.S. Administrative Level's mean perception scores of the villages achievement of Health goals ranged from one category below almost completely achieved (3.63) to four

TABLE IX

PERCEPTIONS BY THREE LEVELS IN THE DEVELOPMENT CHAIN AS INDICATED BY MEAN SCORES  
 EXPRESSING RELATIVE IMPORTANCE AND ACHIEVEMENT FOR SELECTED HEALTH GOALS

Q#	Health Goals	U.S. Administrative Level				Middle Management Level				Village Level			
		N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean
6.	Adequate housing available to all villagers	22	3.50	7	2.14	19	4.21	18	2.67	154	4.78	152	2.58
22.	Potable water available at or near each homesite	20	4.20	6	3.17	19	4.74	19	4.05	154	4.84	150	3.29
24.	Sanitary facilities used at each homesite	22	4.41	7	3.14	19	4.63	19	3.32	156	4.75	154	2.33
26.	Family health improved	22	4.49	7	3.71	18	4.89	18	3.44	150	4.80	149	2.97
30.	Family atmosphere and home environment improved	21	4.00	6	2.67	19	4.42	19	3.32	155	4.78	151	2.91
32.	Child mortality reduced	21	4.76	8	3.63	19	4.74	18	3.56	154	4.75	149	3.03
33.	Adequate recreational facilities available	20	2.50	7	1.14	19	3.89	17	1.88	151	4.36	143	.89
34.	Health services and medicines available	21	4.24	7	3.57	19	4.79	17	3.06	156	4.77	147	1.88
36.	Balanced diet eaten daily	21	4.38	7	3.29	19	4.58	18	2.61	156	4.65	152	1.95
38.	Family planning education available	21	3.57	8	2.38	19	4.42	19	3.00	153	4.54	149	2.10
	WEIGHTED OR GRAND MEAN		4.02		2.89		4.53		3.11		4.70		2.40

Q# = these numbers represent the question number as found on the questionnaire (See Appendix A).

categories below almost completely achieved (1.14). The grand mean for all achieved Health goals was two categories below almost completely achieved (2.89). The highest perceived achievement mean score was for "reduced child mortality" (3.63) and the lowest mean score was for "adequate recreational facilities" (1.14). The achievement mean scores are evenly distributed except for the mean score for "adequate recreational facilities (1.14) and "adequate housing available" (2.14). It should be noted that the number of responses (N) for the importance goals is more than twice the responses (N) for achievement goals. From the comments made on the questionnaires it was apparent that the CRWRC board members did not have the needed information to answer the achievement questions and therefore did not feel qualified to answer them.

The Middle Management Level's grand mean for importance for Health goals was in the extremely important category (4.53). The range of means for importance was from extremely important (4.79) to one category below extremely important (3.89). This group perceived "health services and medicines" (4.79) as the highest importance category and "adequate recreational facilities" (3.89) as the lowest. These importance mean scores are evenly distributed. In the area of Health goal achievement, the grand mean for the Middle Management Level was two categories below almost completely achieved (3.11). The individual mean achievement goal scores for health ranged from one category below almost completely achieved (4.05) to three categories below almost completely achieved (1.88). The highest perceived achieved Health goal was "potable water" (4.05) and the lowest perceived achieved Health goal was "adequate recreational facilities" (1.88). Except for the achieved mean score for



"adequate recreational facilities" (1.88) the mean scores are evenly distributed.

The Village Level's grand mean for importance for Health goals was in the top category of extremely important (4.70). The range of Health importance goal means was from extremely important (4.84) to one category below extremely important (4.36). The highest perceived Health importance goal was "potable water" (4.84) and the lowest perceived Health importance goal was "adequate recreational facilities" (4.36). These importance mean scores were evenly distributed. The Village Level grand mean for achievement for Health goals was three categories below almost completely achieved (2.40). The range of the mean scores was from two categories below almost completely achieved (3.29) to four categories below almost completely achieved (.89). The highest perceived Health achieved goal was "potable water" (3.29) and the lowest achieved goal was "adequate recreational facilities" (.89). Except for the achieved mean score for "adequate recreational facilities" (.89) the mean scores were evenly distributed.

Comparing the grand means among the three levels in the development chain showed that the Middle Management Level and the Village Level view the overall importance of Health goals one category higher than the U.S. Administrative Level. Both the U.S. Administrative Level and the Middle Management Level perceived the achievement of the Health goals as one category higher than did the Village Level.

Responses to Questions Pertaining to the  
Importance and Achievement of the  
Educational Goal Items

The number and mean scores of perceptions expressing relative importance and achievement for selected Educational goals by the three levels in the development chain are reported in Table X. The U.S. Administrative Level perceived the importance of the total Educational goals as one category below extremely important (4.05). The range of means for the Educational importance goals was from one category below extremely important (4.45) to two categories below extremely important (3.10). The Educational goal highest in perceived importance was "village development leaders adequately trained" (4.45) and the lowest was "adequate secondary education available" (3.10). Except for the mean score for "adequate secondary education available" (3.10) the U.S. Administrative Level's importance mean scores were evenly distributed. The U.S. Administrative Level's mean perception scores of the villages' achievement of Educational goals ranged from one category below almost completely achieved (3.50) to four categories below almost completely achieved (1.00). The grand mean for all achieved Educational goals was two categories below almost completely achieved (2.76). The highest perceived achievement mean score was for "CEDEN promoters adequately trained" (3.50) and the lowest mean score was for "adequate secondary education available" (1.00). Except for achieved mean score for "adequate secondary education available" (1.00) the achieved mean scores are evenly distributed. It should be noted that the number of responses (N) for the importance goals is more than twice the responses (N) for achievement goals. From the comments made on the questionnaires it is

TABLE X

PERCEPTIONS BY THREE LEVELS IN THE DEVELOPMENT CHAIN AS INDICATED BY MEAN SCORES  
 EXPRESSING RELATIVE IMPORTANCE AND ACHIEVEMENT FOR SELECTED EDUCATION GOALS

Q#	Education Goals	U.S. Administrative Level				Middle Management Level				Village Level			
		N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean
39.	CE DEN promoters and extension agents adequately trained	20	4.40	8	3.50	19	4.79	19	3.79	153	4.76	150	3.89
40.	Adequate primary education locally available	21	4.19	7	2.57	19	4.74	19	3.42	155	4.76	151	3.66
41.	Village development leaders adequately trained (agriculture, health, etc.)	20	4.45	7	3.43	18	4.94	18	3.61	155	4.83	153	2.85
42.	Adequate secondary education locally available	21	3.10	7	1.00	19	3.95	18	1.61	152	4.55	143	.18
43.	Villagers able to read and write	21	4.14	8	2.75	19	4.84	18	3.50	155	4.85	147	3.05
44.	Adequate village level training courses for youth and adults locally available	20	4.05	8	3.13	19	4.47	19	3.05	154	4.70	149	1.87
	WEIGHTED OR GRAND MEAN		4.05		2.76		4.62		3.17		4.74		2.60

Q# = these numbers represent the question number as found on the questionnaire (See Appendix A).

apparent that the CRWRC board members did not have the needed information to answer the achievement questions and therefore did not feel qualified to answer them.

The Middle Management Level's grand mean for importance for Educational goals was in the extremely important category (4.62). The range of means for the importance was from extremely important (4.94) to one category below extremely important (3.95). This group perceived "village development leaders adequately trained" (4.94) as the highest importance category and "adequate secondary education available" (3.95) as the lowest. Except for the mean score for "adequate secondary education available" (3.95) the importance mean scores were evenly distributed. In the area of Educational goal achievement, the grand mean for the Middle Management Level was two categories below almost completely achieved (3.17). The individual mean achievement goal scores for Education ranged from one category below almost completely achieved (3.79) to three categories below almost completely achieved (1.61). The highest perceived achieved Educational goal was "CEDEN promoters and extension agents adequately trained" (3.79) and the lowest perceived Educational goal was "adequate secondary education available" (1.61). Except for the achieved mean score for "adequate secondary education available" (1.61) the mean scores were evenly distributed.

The Village Level grand mean for importance for Educational goals was in the top category of extremely important (4.74). The Village Level perceived all of the Educational goals as being extremely important. The highest perceived Educational goal was "villagers able to read and write" (4.85) and the lowest perceived Educational goal was "adequate secondary education available" (4.55). The Village Level

grand mean for achievement for Educational goals was two categories below almost completely achieved (2.60). The range of the achieved mean scores was from one level below almost completely achieved (3.89) to five categories below almost completely achieved (.18) which is in the category of not achieved. The highest perceived achieved Educational goal was "CEDEN promoters and extension agents adequately trained" (3.89) and the lowest perceived achieved Educational goals was "adequate secondary education available" (.18). Except for the achieved mean scores for "adequate secondary education available (.18) and "adequate village level training courses for youth and adults available" (1.87) the mean scores were evenly distributed.

Comparing the grand means among the three levels in the development chain showed that the Middle Management Level and Village Level perceived the importance of the Educational goals as one category above the U.S. Administrative Level. All three levels of the development chain perceive the achievement of the educational goals as being two categories below almost completely achieved.

Responses to Questions Pertaining to the  
Importance and Achievement of the  
Administrative/Developmental  
Goal Items

The number of respondents and mean scores of perceptions expressing relative importance and achievement for selected Administrative/Developmental goals by the three levels in the development chain are reported in Table XI. The U.S. Administrative Level perceived the importance of the total Administrative/Developmental goals as one

TABLE XI

PERCEPTIONS BY THREE LEVELS IN THE DEVELOPMENT CHAIN AS INDICATED BY MEAN SCORES EXPRESSING  
RELATIVE IMPORTANCE AND ACHIEVEMENT FOR SELECTED ADMINISTRATIVE/DEVELOPMENTAL GOALS

Administrative/Developmental Goals Q#	U.S. Administrative Level				Middle Management Level				Village Level			
	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean
2. Villagers totally involved in village project development planning	22	4.09	7	3.29	19	4.53	18	3.61	156	4.75	154	2.92
4. Long range village plans developed	22	4.05	8	2.63	18	4.17	17	3.06	150	4.49	145	2.43
5. Qualified village promoters or extension agents selected	22	4.41	8	3.75	19	4.68	19	4.05	154	4.64	150	3.08
7. Qualified village leaders selected	21	4.05	7	4.14	19	4.74	19	3.74	151	4.64	145	2.85
9. Comprehensive, functioning village development program established (includes all areas deemed necessary by villagers)	22	4.32	7	3.14	19	4.53	19	3.37	153	4.68	152	2.80
11. Organized, functioning village council or planning committee established	21	4.33	8	3.13	19	4.42	19	2.89	153	4.56	152	2.01
13. Village development projects evaluated by both CEDEN and villagers	22	4.14	7	4.00	19	4.79	19	4.00	155	4.66	152	2.96
15. Measurable objectives established and agreed upon by both villagers and CEDEN with each thoroughly understanding their responsibilities	21	4.05	8	3.50	19	4.68	19	3.37	152	4.65	155	3.09
17. Cooperation developed between village and government	21	3.29	7	1.86	19	3.63	19	2.00	153	4.55	152	1.71
19. Cooperation developed between village and CEDEN	22	3.55	7	3.86	17	4.88	17	4.00	151	4.74	147	3.75
20. Off-season, off-farm employment available	20	3.45	7	1.43	18	3.67	19	1.74	151	4.22	146	1.03

TABLE XI (Continued)

Administrative/Developmental Goals Q#	U.S. Administrative Level				Middle Management Level				Village Level			
	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean	N	Importance Mean	N	Achievement Mean
21. Villagers totally involved in village project implementations	22	4.18	7	3.71	19	4.47	19	2.95	155	4.76	154	2.93
27. Interest and enthusiasm exhibited by promoters and extension agents	21	4.19	8	3.50	19	4.89	18	3.89	154	4.71	152	3.53
29. Visits to village made often by CEDEN promoters and extension agents	21	3.81	7	3.86	19	4.68	19	4.16	152	4.76	154	4.22
31. Visits to village made often by government extension agents	20	2.70	7	1.14	19	3.16	19	1.68	155	4.38	153	1.41
35. Brotherly love towards each other demonstrated by villagers	21	4.33	7	2.86	19	4.47	19	3.37	155	4.78	149	2.99
37. Wise expenditure and use of available money and resources made by villagers	20	4.20	7	3.29	19	4.84	19	3.05	154	4.66	150	2.31
WEIGHTED OR GRAND MEAN		3.96		3.13		4.43		3.22		4.63		2.71

Q# = these numbers represent the question number as found on the questionnaire (See Appendix A).

category below extremely important (3.96). The range of means for the Administrative/Developmental importance goals was from one category below extremely important (4.41) to two categories below extremely important (3.29). The highest perceived importance Administrative/Developmental goal was "qualified village promoters or extension agents selected" (4.41) and the lowest was "visits to village made often by government extension agents" (2.70). Except for the mean score for "visits to village made often by government extension agents" (2.70) the importance mean scores were evenly distributed. The U.S. Administrative Level's mean perception scores of the villages' achievement of Administrative/ Developmental goals range from one category below almost completely achieved (4.14) to four categories below almost completely achieved (1.14). The grand mean for all achieved Administrative/Developmental goals was two categories below almost completely achieved (3.13). The highest perceived achievement mean score was for "qualified village leaders selected" (4.14) and the lowest mean score was for "visits to village made often by government extension agents" (1.14). Except for the achieved mean scores for "visits to village made often by government extension agents" (1.14), "off-season , off-farm employment available" (1.43) and "cooperation developed between village and goverment" (1.86) the mean scores were evenly distributed. It should be noted that the number of responses (N) for the importance goals is more than twice the responses (N) for achievement goals. From the comments made on the questionnaires it was apparent that the CRWRC board members did not have the needed information to answer the achievement questions and therefore did not feel qualified to answer them. Also, in question 7, 19 and 21 the



achievement mean scores were higher than the importance mean scores leading one to believe that the board member scores, or lack of them, are influencing the scores disproportionately.

The Middle Management Level's grand mean for importance for the Administrative/Developmental goals was one category below extremely important (4.43). The range of means for importance was from extremely important (4.89) to two categories below extremely important (3.16). This group perceived "interest and enthusiasm exhibited by promoters and extension agents" (4.89) as the highest importance category and "visits to village made often by government extension agents" (3.16) as the lowest. Except for the mean score for "visits to village made often by government extension agents" (3.16) the importance mean scores were evenly distributed. In the area of Administrative/Developmental goal achievement, the grand mean for the Middle Management Level was two categories below almost completely achieved (3.22). The individual mean achievement goal scores for Administrative/Developmental ranged from one category below almost completely achieved (4.16) to three categories below almost completely achieved (1.68). The highest perceived achieved Administrative/Developmental goal was "visits to village made often by CEDEN promoters and extension agents" (4.16) and the lowest perceived achieved Administrative/Developmental goal was "visits to village made often by government extension agents" (1.68). Except for the achieved mean scores for "visits to village made often by government extension agents" (1.68) and "off-season, off-farm employment available" (1.74) the achieved mean scores are evenly distributed.

The Village Level's grand mean for importance for Administrative/Developmental goals was in the top category of extremely important

(4.63). The range of Administrative/Developmental importance goal means was from extremely important (4.78) to one category below extremely important (4.22). The highest perceived Administrative/Developmental importance goal was "brotherly love towards each other demonstrated by villagers" (4.78) and the lowest perceived Administrative/Developmental importance goal was "off-season, off-farm employment available" (4.22). The mean scores for importance were evenly distributed. The Village Level grand mean for achievement for Administrative/Developmental goals was two categories below almost completely achieved (2.71). The range of the mean scores was from one category below almost completely achieved (4.22) to four categories below almost completely achieved (1.03). The highest perceived Administrative/Developmental achieved goal was "visits to village made often by CEDEN promoters and extension agents" (4.22) and the lowest achieved goal was "off-season, off-farm employment available" (1.03). The achieved mean scores were widely distributed with three rather extreme scores at the top and three at the bottom. The three top extreme scores were "visits to village made often by CEDEN promoters and extension agents" (4.22), "cooperation developed between village and CEDEN" (3.75) and "interest and enthusiasm exhibited by promoters and extension agents" (3.53). The three extreme bottom mean scores were "off-season, off-farm employment available" (1.03), "visit to village made often by government extension agents" (1.41) and "cooperation developed between village and government" (1.71).

Comparing the grand means among the three levels in the development chain showed that the development levels are nearly in total agreement. All of the development levels perceived achievement of the Administrative/Development goals as being two categories below almost

completely achieved. The U.S. Administrative Level and Middle Management Level perceived the importance of the Administrative/Developmental goals as one category below extremely important whereas the village level perceived these goals as extremely important.

#### Responses to Questions Pertaining to Village Improvement

The number of responses and mean scores of perceptions expressing relative village improvement for selected development items by the three levels in the development chain are reported in Table XII. The U.S. Administrative Level grand mean of perceived village improvement was in the top category of improved (2.84). All of the perceived individual mean improvement scores were in the improved category. The highest perceived mean score was tied among three categories; "agriculture", "health" and "standard of living" (3.00) and the lowest mean score was for "primary education" (2.50).

As with the preceding tables it should be noted that the number of responses by the U.S. Administrative Level is considerably lower than the other two levels in the development chain. From the comments made on the questionnaires completed by the CRWRC Board of Directors it was apparent they did not have the needed information to complete this section.

The Middle Management Level's grand mean of perceived village improvement was in the top category of improved (2.94). All of the perceived individual mean improvement scores were in the improved category. The highest perceived mean score was tied among two categories; "agriculture" and "standard of living" (3.00) and the lowest

TABLE XII

PERCEPTIONS BY THREE LEVELS IN THE DEVELOPMENT CHAIN AS INDICATED BY MEAN SCORES  
 EXPRESSING RELATIVE VILLAGE IMPROVEMENT FOR SELECTED DEVELOPMENT CATEGORIES

Categories	U.S. Administrative Level		Middle Management Level		Village Level	
	N	Mean	N	Mean	N	Mean
Agriculture	12	3.00	18	3.00	148	2.77
Health	12	3.00	18	2.94	148	2.80
Primary Education	10	2.50	17	2.82	146	2.81
Village Cooperation	11	2.64	19	2.95	148	2.81
Adult Education	11	2.82	18	2.94	148	2.80
Standard of Living	12	3.00	18	3.00	148	2.65
WEIGHTED OR GRAND MEAN		2.84		2.94		2.77

mean score was for "primary education" (2.82).

The Village Level's grand mean of perceived village improvement was in the top category of improved (2.77). All of the perceived individual mean improvement scores were in the improved category. The highest perceived mean score was tied among two categories; "primary education" (2.81) and "village cooperation" (2.81) and the lowest mean score was for "standard of living" (2.65).

The grand means for all three levels of the development chain fell within the limits of improved. The Middle Management Level rated the total village improvement as the highest (2.94) followed by the U.S. Administrative Level (2.84) with the Village Level rating the overall improvement slightly lower but still within the set limits of improved (2.77).

#### Major Problems Confronting Villages

Each level in the development chain was asked to list three major problems they felt were confronting the villages in Honduras. The answers to this question were grouped into the four general categories of the study: Agriculture, Health, Education, and Administrative/Developmental. Each of these categories was further subdivided to accommodate the individual responses. Table XIII, XIV, XV and XVI report the responses in numbers and percentages by development level and category.

Table XIII reports the number of responses (N) and percentages (%) of identified Agricultural problems confronting the villages in Honduras as seen by the three levels in the development chain. The U.S. Administrative Level viewed the Agricultural problems as falling mainly

TABLE XIII

MAJOR AGRICULTURAL PROBLEMS CONFRONTING VILLAGES  
AS IDENTIFIED BY DEVELOPMENT LEVELS

Agriculture Problem Categories	U.S. Administrative Level		Middle Management Level		Village Level		Total	
	Frequency Distribution		Frequency Distribution		Frequency Distribution		N	%
	N	%	N	%	N	%		
Land	2	28.57	9	64.30	67	42.40	78	43.58
Production (disease, insects, yields, irrigation)	3	42.86	1	7.14	23	14.56	27	15.08
Lack of Agricultural Cooperatives			1	7.14			1	.56
Climate (flooding, drought)			1	7.14	26	16.46	27	15.08
Credit					2	1.27	2	1.12
Marketing	2	28.57	1	7.14	5	3.16	8	4.47
Transportation			1	7.14	35	22.15	36	20.11
TOTAL	7	100.00	14	100.00	35	100.00	179	100.00

TABLE XIV  
 MAJOR HEALTH PROBLEMS CONFRONTING VILLAGES  
 AS IDENTIFIED BY DEVELOPMENT LEVELS

Health Problem Categories	U.S. Administrative Level		Middle Management Level		Village Level		Total	
	Frequency Distribution		Frequency Distribution		Frequency Distribution		N	%
	N	%	N	%	N	%		
Sanitation (potable water, latrines)	1	33.33			37	28.24	38	25.85
Food or nutrition (lack of or poor food)	1	33.33	1	7.69	26	19.85	28	19.05
Health (disease, sickness)			4	30.77	27	20.61	31	21.09
Health center, (services medicine, care)	1	33.33	4	30.77	25	19.09	30	20.41
Poor housing and living conditions			4	30.77	16	12.21	20	13.60
TOTAL	3	99.99	13	100.00	131	100.00	147	100.00

TABLE XV

MAJOR EDUCATION PROBLEMS CONFRONTING VILLAGES  
AS IDENTIFIED BY DEVELOPMENT LEVELS

Education Problem Categories	U.S. Administrative Level		Middle Management Level		Village Level		Total	
	Frequency Distribution		Frequency Distribution		Frequency Distribution		N	%
	N	%	N	%	N	%		
Lack of adequate schools or teachers					33	66.66	33	46.48
Illiteracy	2	28.58	1	7.14	7	14.00	10	14.08
Lack of technical skills	1	14.28	2	14.29			3	4.28
Lack of education, lack of knowlegde	2	28.58	7	50.00	10	20.00	19	26.76
Lack of training for village level workers	1	14.28					1	1.14
Lack of organizational and planning skills	1	14.28	4	28.57			5	7.04
TOTAL	7	100.00	14	100.00	50	100.00	71	100.00



TABLE XVI

MAJOR ADMINISTRATIVE/DEVELOPMENTAL PROBLEMS CONFRONTING  
VILLAGES AS IDENTIFIED BY DEVELOPMENT LEVELS

Administrative/ Developmental Problem Categories	U.S. Administrative Level		Middle Management Level		Village Level		Total	
	Frequency Distribution		Frequency Distribution		Frequency Distribution		N	%
	N	%	N	%	N	%		
Land - non agricultural					5	6.49	5	5.16
Civil and political (lack of government support)	2	20.00	1	10.00	1	1.30	4	4.12
Traditional village practices (lack of coopera- tion, communication, villa- ger participation and interest in development)	5	50.00	5	50.00	14	18.18	24	24.74
Lack of church, evangelism or brotherly love	3	30.00			1	1.30	4	4.12
Lack of community center or electricity					29	37.66	29	29.90
Lack of economic resources			4	40.00	27	35.07	31	31.96
TOTAL	10	100.00	10	100.00	77	100.00	97	100.00

into three areas (1) production problems (42.86%), (2) land problems (28.57%) and (3) marketing problems (28.57%).

The Middle Management Level reported the major Agricultural problem as "land problems" (64.30%). Five other areas were mentioned but had only one response each. These were: (1) production problems (7.14%), (2) lack of agricultural cooperatives (7.14%), (3) climate problems (7.14%), (4) marketing problems (7.14%), and (5) transportation problems (7.14%).

The Village Level reported the major village Agricultural problem dealt with "land problems" (42.40%). The other problems were: (1) transportation problems (22.15%), (2) climate problems (16.46%), (3) production problems (14.56%), (4) marketing problems (3.16%) and (5) credit problems (1.27%).

When the Agricultural problems identified by the three levels are combined, "land problems" (43.58%) was the leading problem. The other problems were: (1) transportation (20.11%), (2) production problems (15.08%), (3) climate problems (15.08%), (4) marketing problems (4.47%), (5) credit problems (1.12%) and (6) lack of agricultural cooperatives (.56%). As noted before, the number of responses by the U.S. Administrative Level is low due to the lack of knowledge on the subject.

Table XIV reports the responses (N) and the percentages of Health problems confronting the villages in Honduras as seen by the three levels in the development chain. The U.S. Administrative Level reported the Health problems as falling into three categories. These categories were: (1) sanitation problems (33.33%), (2) food or nutrition problems (33.33%), and (3) lack of health services (33.33%).

The Middle Management Level reported the Health problems as falling

into four categories but with three of the categories having four responses each and one category having only one response. The four problem categories were: (1) health problems (30.77%), (2) lack of health services (30.77%), (3) poor housing and living conditions (30.77%), and (4) food or nutrition problems (7.69).

The Village Level reported the major Health problems rather evenly distributed over five categories. These five Health categories were: (1) sanitation problems (28.24%), (2) health problems (20.01%), (3) food or nutrition problems (19.85%), (4) lack of health services (19.09%) and (5) poor housing and living conditions (12.21%).

When the Health problems identified by the three levels in the development chain are combined they are rather evenly distributed over five categories. These five health categories are: (1) sanitation problems (25.85%), (2) health problems (21.09%), (3) lack of health services (20.41%), (4) food or nutrition problems (19.05%), and poor housing and living conditions (13.60%).

Table XV reports the responses (N) and percentages of identified Education problems confronting the villages in Honduras as seen by the three levels in the development chain. The U.S. Administrative Level reported the major Educational problems confronting the villages as falling into five categories. The responses were rather evenly distributed among these five categories. The identified Educational problem areas were as follows: (1) illiteracy (28.58%), (2) lack of education (28.58%), (3) lack of technical skills (14.28%), (4) lack of training for village level workers (14.28%), and (5) lack of organizational and planning skills (14.28%).

The Middle Management Level reported the major Education problem

confronting the village was "lack of education" (50.00%). The other categories reported were: (1) lack of organizational and planning skills (28.57%), (2) lack of technical skills (14.29%), and (3) illiteracy (7.14%).

The Village Level reported their major problem dealt with "lack of adequate schools" (66.00%). The other problems were: (1) lack of education (20.00%), and (2) illiteracy (14.00%).

When the Education problems identified by the three levels in the development chain are combined, "lack of adequate schools" (46.48%) was the leading educational problem. The other Education problems were: (1) lack of education (26.76%), (2) illiteracy (14.08%), (3) lack of organizational and planning skills (7.04%), (4) lack of technical skills (4.23%), and (5) lack of training for village level workers (1.41%).

Table XVI reports the number of responses (N) and the percentages (%) of the identified Administrative/Developmental problems confronting the villages in Honduras as seen by the three levels in the development chain. The U.S. Administrative Level reported the major Administrative/Developmental problems confronting the villages as falling into three categories. These categories were: (1) traditional village practices (50.00%), (2) lack of church, evangelism or brotherly love (30.00%), and (3) civil and political problems (20.00%).

The Middle Management Level reported the major Administrative/Developmental problems confronting the villages as falling into three categories. The categories were: (1) traditional village practices (50.00%), (2) lack of economic resources (40.00%), and (3) civil or political problems (10.00%).

The Village Level reported their major Administrative/Developmental

problems as "a lack of a community center or electricity" (37.66%) and "lack of economic resources" (35.07%). Other problems were: (1) traditional village practices (18.18%), (2) nonagricultural land problems (6.49%), (3) civil or political problems (1.30%), and lack of church, evangelism or brotherly love (1.30%).

When the Administrative/Developmental problems identified by the three levels in the development chain are combined, three major categories were evident. These categories were: (1) lack of economic resources (31.96%), (2) lack of a community center or electricity (29.90%), and (3) traditional village practices (24.74%).

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The intent of this chapter was to present summaries of the following topics: rationale for the study, purpose of the study, objectives of the study, design of the study, and the major findings of the study. A thorough inspection and analysis of the above topics was made, and then appropriate conclusions and recommendations were presented.

#### Rationale for the Study

Third World village development requires that all of the personnel engaged in this effort share similar objectives and that each level, be it the financing agency, village development groups or the villagers themselves, communicate and work together to reach these common goals. There is evidence that these different levels in the development chain are not always in agreement concerning the village development process. This study was concerned with this problem.

#### Purpose of the Study

The primary purpose of this study was to ascertain perceptions relative to village development goals, concepts and programs as held by individuals categorized into three levels in the development chain as it

is presently operating in Honduras.

### Objectives of the Study

The objectives of the study were:

1. To determine the differences in the perceptual assessment made by individuals comprising each of the three levels of the development chain with regard to the relative importance of selected items pertaining to the process of village development.

2. To determine differences in the perceptual assessment made by individuals comprising each of the three levels of the development chain as to the extent to which selected items in village development have been accomplished.

3. To compare the perceptual assessment made by individuals comprising each of the three levels of the development chain with regard to the relative importance and relative achievement of selected items pertaining to the process of village development.

### Design of the Study

Following a review of literature, procedures were established to satisfy the purpose and objectives of this study. The population of this study included respondents from the three levels in the development chain. The population for level one included the following: (1) four U.S. CRWRC Board of Director members who were in the executive committee and directly involved in foreign programs, (2) six U.S. CRWRC Board of Director members who were on the executive committee but were not directly involved in foreign programs, (3) three U.S. CRWRC Board of Director members who were not on the executive committee, (4) seven U.S.

CRWRC administrative staff who were directly associated with foreign programs, and (5) two U.S. CRWRC administrative staff who were not directly associated with foreign programs. The population for level two included the following: (1) five National Honduran CEDEN Board of Director members, (2) ten National Honduran CEDEN administrative and supervisory staff, and (3) four CRWRC North American technical missionaries. The population for level three included the following: (1) eleven CEDEN village level promoters, (2) forty-three trained technical village leaders, and (3) one hundred and two stratified randomly selected village heads of households from seventeen villages in Honduras. An attempt was made to gather a completed population for all groups except for the villagers where a twenty-five percent stratified random sample of heads of households from each village was attempted.

The U.S. Administrative Level (level one) had a total of twenty-two respondents or 40.00 percent of the total. The Middle Management Level (level two) had a total of nineteen respondents which represented 90.00 percent of the total. The Village Level (level three) had one hundred fifty-six respondents which was 36.00 percent of the total. The total number of respondents was one hundred ninety-seven. See Table XVII.

The data collected for this study was collected using a questionnaire. All of the respondents completed the questionnaire individually except for the village leaders and selected villagers who were each interviewed by CEDEN promoters who, in turn, filled out the questionnaires for the villagers. The first four items on the questionnaire were of demographic nature. They asked for the person's name, community, occupation and number of years associated with CRWRC/CEDEN. The next forty-four questions were asked to determine the



perceptions of the three different levels in the development chain on importance and achievement of selected Agricultural, Health, Education and Administrative/Developmental village goals. Question number forty-five dealt with each respondent's opinion concerning whether or not selected village items had improved during the last five years. The last question was an open ended question asking for the respondent's opinion concerning major problems confronting the villages under study.

TABLE XVII

SUMMATION: DISTRIBUTION OF RESPONDENTS BY DEVELOPMENT LEVEL

Development Level	Total	Number of Respondents	Percent Response
U.S. Administrative Level	55	22	40.00
Middle Managment Level	21	19	90.00
Village Level	431	156	36.00
TOTAL	507	197	39.00

The survey was conducted from May 1983 through November 1983. The data was keypunched on IBM cards and a SAS program was used in calculating the frequency distributions (numbers and percentages).

#### Major Findings of the Study

The major findings of this study were divided into five sections.

They were as follows:

1. Relative Importance of Village Development Categories.
2. Relative Achievement of Village Development Categories.
3. Comparisons of Relative Importance and Achievement.
4. Relative Village Improvement.
5. Major Problems Confronting Villages.

#### Relative Importance of Village Development Categories

The overall weighted mean scores by development level expressing both perceived importance and perceived achievement for the four selected categories of village development are graphically shown in Figure 1. As can be observed through examination of data shown in Figure 1, mean scores expressing perceived levels of importance for each of the selected village development categories follows a general pattern. The development chain level that consistently had the highest perceived mean scores for importance was expressed by respondents at the Village Level. The development level consistently having the lowest perceived mean scores for importance was the U.S. Administrative Level. Mean scores as expressed by respondents at the Middle Management Level consistently fell in between those of the Village Level and the U.S. Administrative Level. The difference between the mean scores expressing perceptions of the importance within each of the village development categories for, (1) the Village Level as contrasted with (2) the U.S. Administrative Level, ranged from 0.70 to 0.67. This was not considered to be a difference large enough to be recognized as a notable difference. In analyzing the data for importance presented in

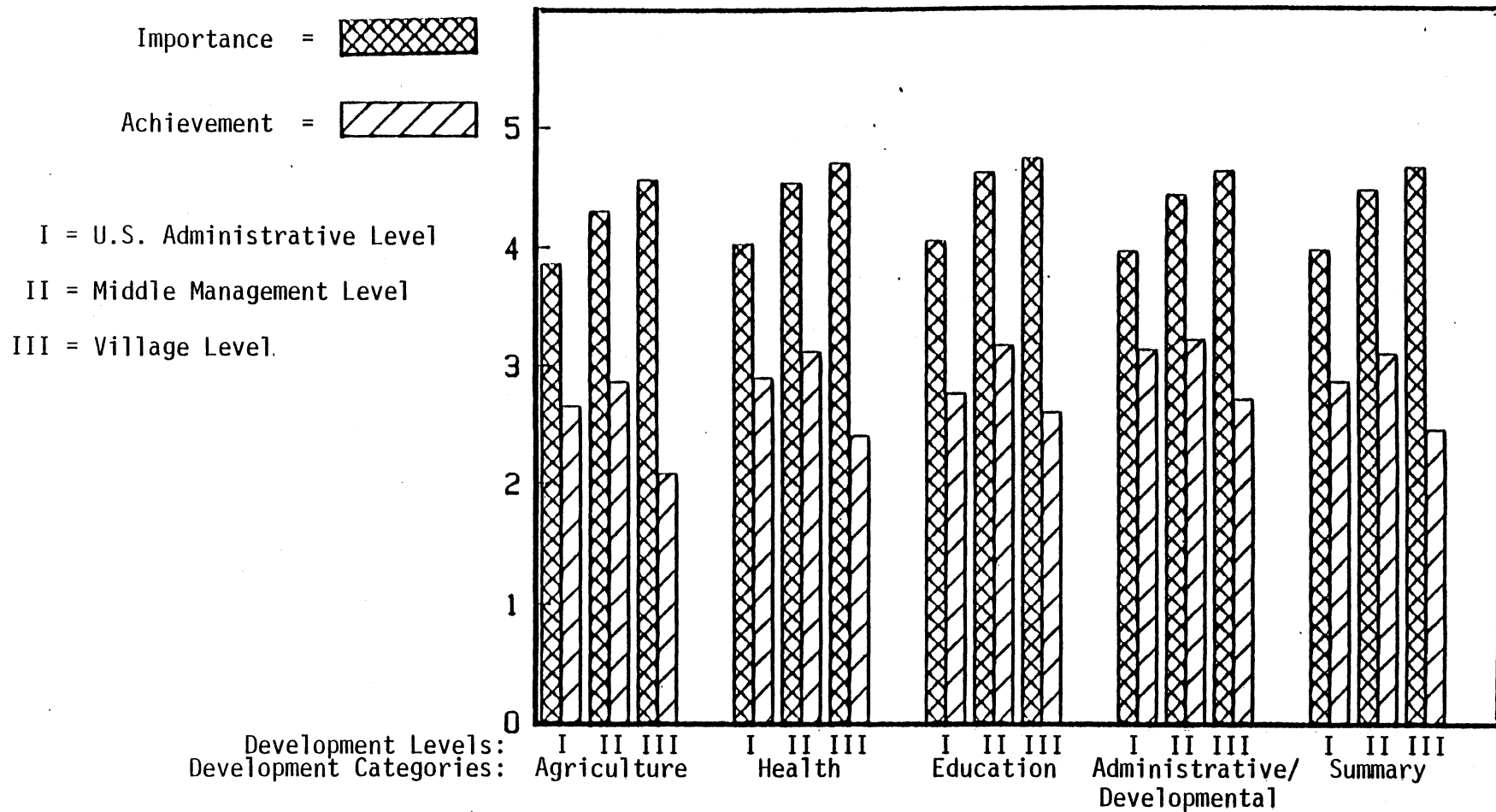


Figure 1. Summary of Mean Responses of Importance and Achievement Levels for Selected Development Categories as Perceived by the Tri-level Development Chain

Figure 1, it must be pointed out that for this study a mean score difference of 2.00 or more, or a mean score below 2.50 for any item or category indicates a notable difference in the particular item or category.

All three levels in the development chain indicated that they felt items pertaining to Education were the most important, Health items were the second most important, Administrative/Developmental items were the third most important and Agricultural items were the least important among the four village development categories. However, the differences in the mean scores for importance among the four development categories were not sufficient to be considered as notable. Therefore, it would appear evident that respondents in each of the levels of the development chain did not consider any single village development category as being more important than others.

#### Relative Achievement of Village Development

##### Categories

Figure 1 graphically presents the overall weighted mean scores expressing both perceived importance and perceived achievement by development chain level for the four selected categories of village development. Concerning achievement, it is clear from Figure 1 that the development level consistently perceiving achievement as the highest was the Middle Management Level, second highest was the U.S. Administrative Level and the lowest was the Village Level. The differences between the mean scores expressing perception of achievement within each of the village development categories for (1) the Middle Management Level and (2) the Village Level, ranged from 0.78 to 0.51. Again, this difference

was not large enough to be considered a notable difference.

All three levels in the development chain indicated that they felt items pertaining to Administrative/Developmental had been most achieved among the four village development categories, with Agriculture being perceived as the least achieved. The Middle Management Level and Village Level perceived Education as the second most achieved village development category with the U.S. Administrative Level perceiving Health as the second most achieved village development category. The Middle Management Level and Village Level perceived Health as the third most achieved village development category with the U.S. Administrative Level perceiving Education as the third most achieved village development category. However, the differences in the mean scores for achievement among the four development categories were not sufficient to be considered as notable. Therefore, it would appear evident that respondents in each of the levels of the development chain did not consider any single village development category as being more highly achieved than were others.

#### Comparisons Relating to Relative Importance and to Achievement

When responses within each of the levels of the development chain are compared, both as to importance and achievement, notable differences are to be found in several instances. However, when applying the criteria set for this study, these are found to be confined exclusively to the Village Level. While responses for importance versus achievement from the Village Level for the category Administrative/Developmental were not sufficiently different to be recognized as notable, those in

the other three categories of Agriculture, Health and Education were. Therefore, it can be readily recognized that in the categories of Agriculture, Health and Education, the expectations of the respondents at the Village Level as expressed in terms of importance have not yet been achieved.

The greatest difference in mean scores between importance and achievement is found in the development category of Agriculture and within the Village Level respondents (2.48). Reviewing Table VIII, Chapter IV, it can be readily observed among the Village Level respondents the only importance item that fell below extremely important was "Farm cooperatives established" (4.03), this being only one category below extremely important. Studying the achievement mean scores for Agriculture as expressed by respondents at the Village Level shows eight out of the eleven achievement items fall below the criteria set for this study. These items and mean scores for achievement were as follows:

1. Farm cooperatives established (.87).
2. Adequate transportation available to and from markets (1.52).
3. Adequate markets available for sale of farm commodities (1.59).
4. Fair prices available for sale of farm commodities (1.74).
5. Farm land improved. (Irrigation, drainage, removal of rocks and stumps, erosion control, etc.) (1.77).
6. Appropriate farm equipment locally available (1.83).
7. Appropriate farm supplies locally available (2.24).
8. Results from agricultural research programs available to farmers. (New varieties, pest control methods, etc.) (2.34).

Only three items in the development category of Agriculture were perceived by the Village Level respondents as meeting the criteria of an

achieved mean score of 2.50 or above. These were as follows:

1. Adequate farm credit available (3.32).
2. Farm credit or loans repaid (3.12).
3. Farm land equally available to all farmers (2.55).

The second largest notable difference in mean scores between perceived importance and perceived achievement was found at the Village Level in the development category of Health. A close study of Table IX, Chapter IV, reveals that at the Village Level the only item to have a mean score below extremely important was "adequate recreational facilities available" (4.36) and this was only one category below extremely important. Reviewing the mean scores for achievement at the Village Level shows that five items out of the ten items fell below the criteria set for this study. These five notable items and their achieved means scores were as follows:

1. Adequate recreational facilities available (0.89).
2. Health services and medicines available (1.88).
3. Balanced diet eaten daily (1.95).
4. Family planning education available (2.10).
5. Sanitary facilities used at each homesite (2.33).

The five items in the Health category perceived by the respondents of the Village Level as meeting the criteria of 2.50 or above were:

1. Potable water available at or near each homesite (3.29).
2. Child mortality reduced (3.03).
3. Family health improved (2.97).
4. Family atmosphere and home environment improved (2.91).
5. Adequate housing available to all villagers (2.58).

The third largest notable difference in mean scores between

perceived importance and perceived achievement was found at the Village Level in the development category of Education. A study of Table X, Chapter IV, shows that the Village Level respondents perceived all educational items as extremely important. The Village Level had two perceived achieved mean scores for Education that fell below the established criterion level of 2.50. These two education items and their mean scores for achievement were:

1. Adequate secondary education locally available (0.18).
2. Adequate village level training courses for youth and adults locally available (1.87).

The four items in Education perceived by Village Level respondents as meeting or passing the criterion established for the study were:

1. CEDEN promoters and extension agents adequately trained (3.89).
2. Adequate primary education locally available (3.66).
3. Village development leaders adequately trained. (Agriculture, health, etc.) (2.85).

Even though the difference in mean scores between perceived importance and perceived achievement for the Administrative/ Developmental category at the Village Level was not large enough to be considered notable by the criteria of this study, six individual items concerning achievement at the Village Level in Table XI, Chapter IV, should be mentioned since these individual items fell below this study's criteria and are considered notable. These six items and their achieved mean scores were as follows:

1. Off-season off-farm employment available (1.03).
2. Visits to village made often by government extension agents (1.41).



3. Cooperation developed between village and government (1.71).
4. Organized, functioning village council or planning committee established (2.01).
5. Wise expenditure and use of available money and resources made by villagers (2.31).
6. Long range village plan developed (2.43).

The summary of respondent means is presented in Figure 1 to give an overall indication of the total mean scores for the perceptions of respondents by development level for both importance and achievement of selected village development categories. Summary of mean scores both for importance and for achievement can be viewed as general indicators of how respondents comprising the three development levels perceive the overall importance and achievement of the selected village development categories. The mean of mean scores for importance at the Village Level for the four village development categories is the highest among the three levels in the development chain followed by the Middle Management Level and finally the U.S. Administrative Level. The difference in mean of mean scores for importance between the Village Level and U.S. Administrative Level was 0.69. This difference was not large enough to be considered notable. The mean of mean scores for achievement for the four village development categories for the Middle Management Level is the highest among the three levels in the development chain followed by the U.S. Administrative Level and the lowest perceived mean of mean score was at the Village Level. The difference in mean of mean scores for achievement between the Middle Management Level and the Village Level was 0.64. This difference was not great enough to be considered notable.

When the mean of mean scores within each of the levels of the development chain were compared, both as to importance and achievement, a notable difference was found only within the Village Level. At the Village Level it can be readily recognized that in overall village development the expectations as expressed in terms of importance have not yet been achieved.

#### Relative Village Improvement

The mean scores from the combined selected categories of Table XII by development level expressing the level of village improvement over the past five years are graphically presented in Figure 2. The development level perceiving the highest village improvement over the last five years was the Middle Management Level and the development level perceiving the least improvement was the Village Level. All three levels in the development chain had mean scores for perceived village improvement which fell in the category of improved. The small difference between the mean scores for the Middle Management Level and the Village Level (0.17) was not considered notable.

#### Major Problems Confronting Villages

The summation of the problems confronting the villages as indicated by the three levels in the development chain is graphically presented in Figure 3. The U.S. Administration Level indicated they felt that problems in the Administrative/Developmental (37.03%) category were the primary ones followed by Agriculture (25.93%) and Education (25.93%) and with Health problems (11.11%) being mentioned the least. The Middle Management Level indicated they felt Agriculture (27.45%), Education

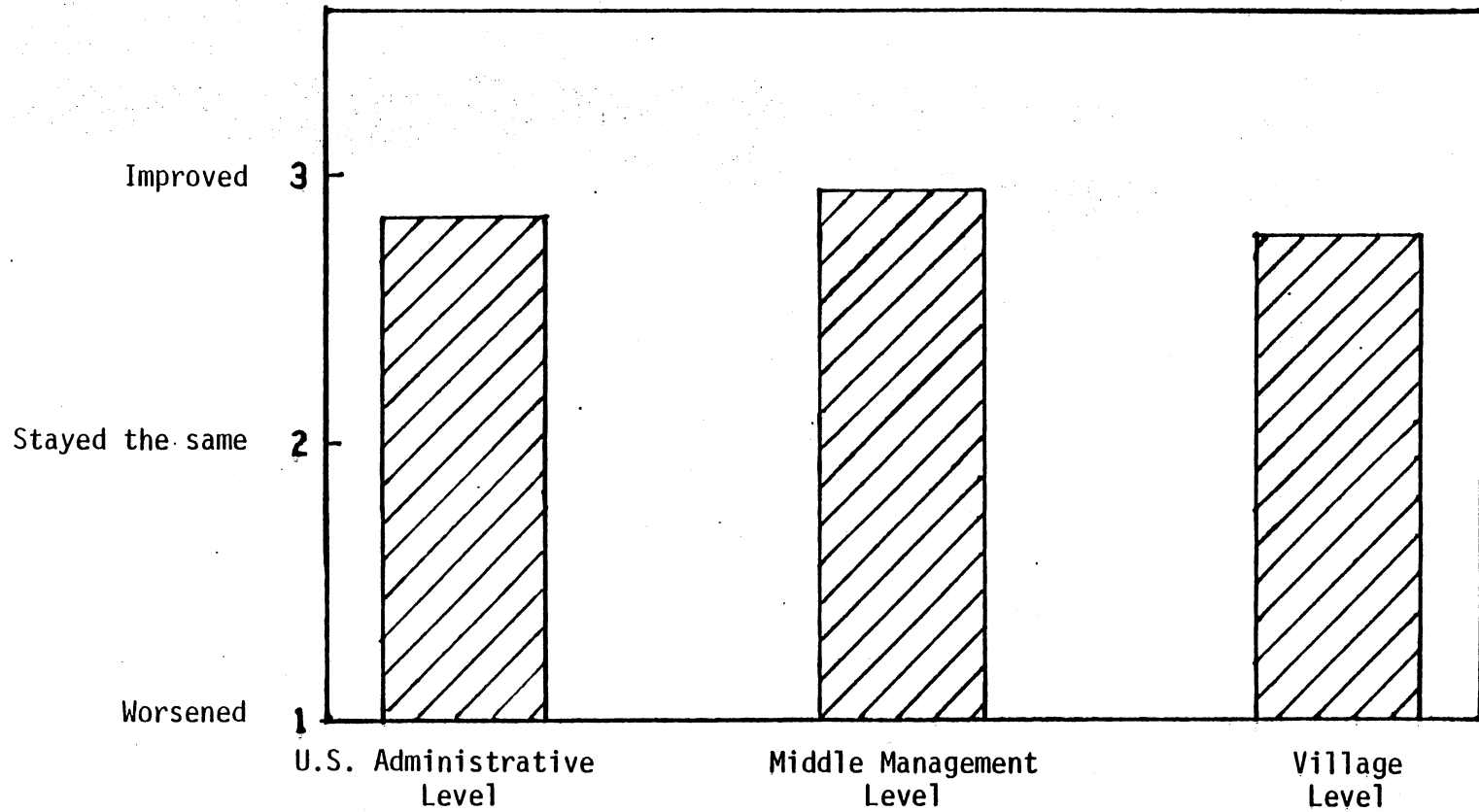
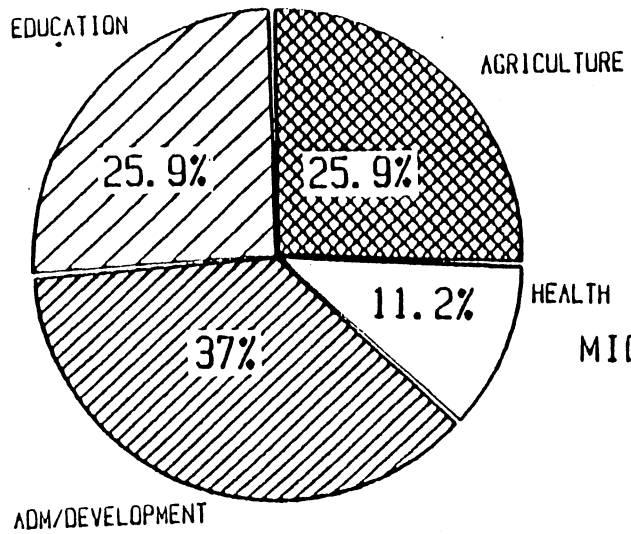
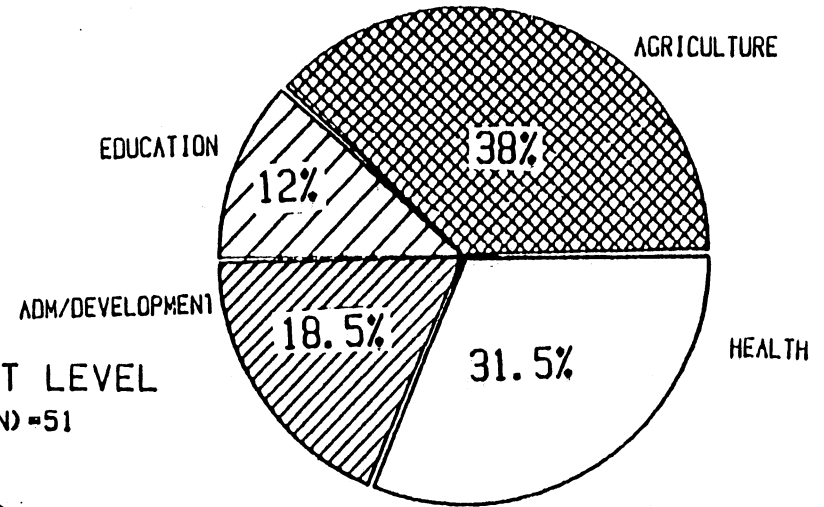


Figure 2. Perceptions of Respondents Within the Tri-Level Development Chain of the Extent of Accomplishment in the Combined Selected Categories of Village Improvement

U. S. ADMINISTRATION LEVEL  
Total Responses (N)=27



VILLAGE LEVEL  
Total Responses (N)=416



MIDDLE MANAGEMENT LEVEL  
Total Responses (N)=51

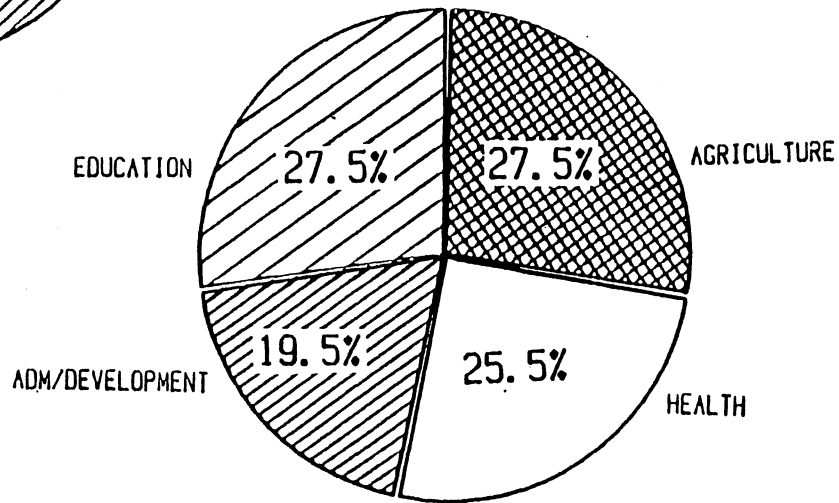


Figure 3. Summation: Major Problems Confronting Villages as Identified by the Tri-Level Development Chain

(27.45%), and Health (25.49%), were the primary problems with Administrative/Developmental problems (19.61%) being mentioned the least. The Village Level indicated they felt that the category of Agriculture (37.49%) was the main problem which was closely followed by the Health category (31.49%) with the Administrative/Developmental (18.51%) and Education (12.02%) categories a distant three and four in ranking.

### Conclusions

After a thorough study and analysis of the data the following conclusions were made:

1. It was concluded that even though there were some differences concerning perceptions of importance, pertaining to village development goals, among the three development levels within the village development categories of Agriculture, Health, Education, and Administrative/Developmental, these differences were not considered large enough to be notable.

2. It was concluded that even though there were some differences concerning perceptions of achievement, pertaining to village development goals, among the three development levels within the village development categories of Agriculture, Health, Education and Administrative/Developmental, these differences were not considered large enough to be notable.

3. Based on the findings, it was concluded that at the Village Level in the development chain, the difference in perceived importance and perceived achievement for the selected development categories of Agriculture, Health, and Education were large enough to be considered

notable. These categories were considered notable since the difference between the importance level and the achieved level was more than 2.00 points.

4. It is apparent from the findings that respondents at each of the three levels of the development chain perceived each of the four village development categories of Agriculture, Health, Education and Administrative/Developmental as highly important. It is therefore concluded that the present program with some slight modifications in emphasis is quite appropriate for that situation.

5. It is evident from the findings that Village Level respondents consistently perceived achievement in village development categories as lower than did U.S. Administrative Level and Middle Management Level respondents. Even though there was a difference among the three development levels this difference was not large enough to be considered notable.

6. Even though there were some differences among respondents reporting for each of the three levels in the development chain concerning the perceptions of the level of village improvement over the last five years, it was concluded that these differences were not great enough to be considered notable. Data revealed that each of the three levels of the development chain had mean scores within the category of improved, therefore it is further concluded that the three levels of the development chain perceived that the villages had improved over the last five years.

7. It was concluded from the findings that a number of individual village development Agriculture category items were perceived by respondents of the Village Level as being low in achievement. To be

considered low according to the criteria established for this study, it was necessary that the individual village goal item fall below 2.50 on the established scale of 0 to 5. When the established criteria were applied to each of the individual goal items it was determined that eight of the eleven items must be considered as low. Those Agricultural items which were determined as being critically low in achievement were:

- a. Farm cooperatives established (.87).
- b. Adequate transportation available to and from markets (1.52).
- c. Adequate markets available for sale of farm commodities (1.59).
- d. Fair prices available for sale of farm commodities (1.74).
- e. Farm land improved (irrigation, drainage, removal of rocks and stumps, erosion control, etc.) (1.77).
- f. Appropriate farm equipment locally available (1.83).
- g. Appropriate farm supplies locally available (2.24).
- h. Results from agricultural research programs available to farmers (new varieties, pest control methods, etc.) (2.34).

8. Further, based upon the findings of the study it was concluded that a number of individual village development Health category items were perceived by respondents of the Village Level as being low in achievement. As previously pointed out, for this study, for a score to be considered critically low it was necessary that the individual village development item fall below 2.50 on the established scale of 0 to 5. Five of the ten items were considered critically low. Those Health achievement items considered critically low were:

- a. Adequate recreational facilities available (.89).
- b. Health services and medicine available (1.88).
- c. Balanced diet eaten daily (1.95).

- d. Family planning education available (2.10).
- e. Sanitary facilities used at each homesite (2.33).

9. It was concluded from this study that a number of individual village development Education category items were perceived by respondents of the Village Level as being critically low in achievement. To be considered low in achievement for this study, it was necessary that the individual village development item fall below 2.50 on the established scale of 0 to 5. Two of the six Educational achievement items were considered critically low. The two items were:

- a. Adequate secondary education locally available (.18).
- b. Adequate village level training courses for youth and adults locally available (1.87).

10. Based upon the findings of the study it was concluded that a number of individual village development Administrative/Developmental category items were perceived by respondents of the Village Level as being critically low in achievement. To be considered critically low in achievement for this study it was necessary that the individual village development item fall below 2.50 on the established scale of 0 to 5. Six of the seventeen Administrative/Developmental items were considered critically low in achievement. Those Administrative/Developmental items determined as critically low were:

- a. Off-season off-farm employment available (1.03).
- b. Visits to village made often by government extension agents (1.41).
- c. Cooperation developed between village and government (1.71).
- d. Organized, functioning village council or planning committee established (2.01).



e. Wise expenditure and use of available money and resources made by villagers (2.31).

f. Long range village plan developed (2.43).

11. It was concluded from the study that the respondents from the Village Level felt their major problems were largely to be found in the categories of Agriculture and Health. This conclusion was based upon the findings that 37.98 percent of the problems indicated were of an agricultural nature while in addition, 31.49 percent of the problems indicated were in the area of health.

12. It was concluded from the study that the majority of the members of the CRWRC Board of Directors did not feel qualified to answer those portions of the questionnaire that dealt more specifically with (1) goal achievement, (2) village improvement, and (3) major problems with which villagers might be confronted. This feeling of inadequacy to answer these specific questions was verified by (1) the low response to the questions concerning goal achievement, village improvements and the problems confronting the villagers, (2) the low return of the questionnaires from this group, and (3) the many succinct comments written in on the questionnaires.

#### Recommendations

As a result of the conclusions drawn from the analysis and interpretation of the data, the following recommendations were made:

1. In view of the overwhelming evidence of agreement among the three levels in the development chain concerning their perceptions of the importance and achievement of the selected village development categories it is recommended that the present channels of communications

and cooperation between the three levels in the development chain be continued and nurtured.

2. In view of the finding that the respondents from each of the three levels of the development chain perceived the selected village development goals as highly important to the accomplishment of further village development, it is recommended that these selected village development goals receive continuing emphasis and support. Agriculture, in particular, should receive strong emphasis due to the fact that respondents at the Village Level perceived a slightly greater spread between importance and achievement than they did for the other development categories.

3. It was apparent in the findings that most members of the CRWRC Board of Directors lacked sufficient information or understanding of the situation in Honduras to be able to intelligently answer the degree of achievement of the many developmental programs or concepts that are being attempted there. The Board members were also unable to tell if the village situations had improved or worsened over the past five years and were unable to identify the major problems confronting the villages in Honduras. Therefore, it is recommended that some mechanism be set up by CRWRC to better inform the Board members of the many facets of village development and their accomplishment at the country or regional level. It is also recommended that the Board members be aware of improvements made in the villages and the problems confronting villagers in their quest for development.

4. Furthermore, a careful examination and analysis of the responses given by the respondents, particularly at the Village Level reveals that attention must be given to some particular items. Actions

to improve the attainment within these areas must rest upon CEDEN, CRWRC and the villagers. Those areas needing special attention for improvement are:

- a. Improve farm lands by removing rocks, stones, soil conservation, irrigation, etc.
- b. Make more agricultural research information available to the farmers.
- c. Improve recreational facilities in the villages.
- d. Improve training for village leaders in health to help villagers with nutritional problems and family planning.
- e. Provide more assistance in the area of sanitary facilities.
- f. Provide more village level training in areas deemed necessary by the village.
- g. Provide assistance to the villages in organizing village development committees and in developing long-range village development plans.
- h. Assist the farmers in developing farm cooperatives so as to attempt to improve the areas of transportation of goods to and from the farm, sale of farm products, and availability of farm equipment and supplies.
- i. Assist the villagers wherever possible in reaching their goal of having secondary education locally available.
- j. Assist farmers in securing off-farm employment or help the farmers to become fulltime year-round farmers.
- k. Make visits to the local and regional government extension and research offices to encourage more interaction between the government and villagers.

5. It was concluded from the study that the farmers perceive that their major problems are in the agricultural and health areas. It is recommended that since the villagers view education as extremely important that improvements in agriculture and health should proceed through an educational extension program.

6. Since this study contains information gathered from seventeen villages from two very different regions of Honduras, it is recommended that a further study be completed as soon as possible to identify by all Honduran regions and villages the major areas of need.

Finally, as the findings of the study have been collated, analyzed and reviewed there is no escaping the fact that citizens of villages in Honduras are receptive, eager and quite able to recognize their needs. Also they appear equally willing to participate in planning, implementing and carrying to completion programs which will improve the quality of life in their respective villages. Therefore, the current village development program with slight modifications as indicated in this study should be carried on in order to continue to help improve the quality of life of the villagers cooperating with CEDEN.

SELECTED BIBLIOGRAPHY.

- Benor, Daniel and James Q. Harrison. Agricultural Extension: The Training and Visit System. Washington, D.C.: World Bank, 1977.
- Blutstein, Howard I. Area Handbook for Honduras. Washington, D.C.: U.S. Government Printing Office, 1971.
- Borlaug, Norman Ernest. "Natures Way Isn't Good Enough." American Forest, Vol. 82 (1976), 20-21.
- Bread For The World. Newsletter: Modified "50 Percent Provision" is Law, A Major Step Forward In Aid Reform. Washington D.C.: Bread For The World, January 1983.
- Bradford, Colin L. Jr., and others. New Directions in Development: Latin America, Export Credit, Population Growth and U.S. Attitudes. New York, NY: Fredrick A. Praeger Publishers, 1974.
- Bunch, Roland. "The Alchemy of Success." New Internationalist, Vol. 106 (December 1981), 26-27.
- Bunch, Roland. Two Ears of Corn: A Guide to People-Centered Agricultural Improvement. Oklahoma City, OK: World Neighbors, 1982.
- Castillo, Gelia T. "The Farmer Revisted: Toward a Return to the Food Problem." The World Food Conference Proceedings (1976), 33-53.
- CEDEN. Programas y Presupuestos, 1982-84. Tegucigalpa, Honduras, Central America: Comite Evangelico de Desarrollo y Emergencia Nacional, 1980.
- Center for International Education. Nonformal Alternatives to Schooling: A Glossary of Educational Methods. Amherst, MA: University of Massachusetts, 1972.
- Ensminger, Douglas. "Constraints to Millions of Small Farmers in Developing Countries Risking Changes in Farming Practices and Family Living Patterns." The World Food Conference Proceedings (1976), 553-565.
- Evans, David R. The Planning of Nonformal Education. Fundamentals of Educational Planning. Paris: UNESCO. International Institute for Educational Planning, 1981.

- Falcon, Walter P. "Recent Lessons From Asia." Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 58-71.
- Hannah, John A. "The Challenge of Providing Food for Hungry People." The World Food Conference Proceedings (1976), 103-111.
- Hathaway, Dale E. "Alternative Institutions and Other Agents of Change for Increased Food Availability." The World Food Conference Proceedings (1976), 593-601.
- Holdcroft, Lane E. The Rise and Fall of Community Development in Developing Countries, 1950-65: A Critical Analysis and an Annotated Bibliography. East Lansing, MI: Michigan State University Rural Development Paper No. 2, 1978.
- Hoxeng, James. Let Jorge Do It: An Approach to Rural Nonformal Education. Amherst, MA: Massachusetts University, Amherst Center for International Education, 1973.
- Hueg, William F. Jr. and Craig A. Gannon. "Friday Afternoon Discussion." Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 176-184.
- IADS 1980 Report. New York, NY: International Agricultural Development Service, 1981.
- IADS 1981 Report. New York, NY: International Agricultural Development Service, 1982.
- Khan, Akhter Hameed. Ten Decades of Rural Development: Lessons from India. East Lansing, MI: Michigan State University Rural Development Paper No. 1, 1978.
- Kodatchenko, A. "Aid-trade Links," Development Forum, Vol. 8, No. 7 (1980), 11.
- Kristensen, Thorkil. Development in Rich and Poor Countries: A General Theory with Statistical Analysis. New York, NY: Fredrick A. Praeger Publishers, 1974.
- La Belle, Thomas J. "An Introduction to the Nonformal Education of Children and Youth". Comparative Education Review, Vol. 25 (1981), 313-329.
- Mechan, Eugene J. In Partnership with People: An Alternative Development Strategy. Rosslyn, VA: Inter-American Foundation 1978.
- Mengin, Odette. "With the Grain: In Defense of Food Aid." Development Forum, Vol. X, No. 9 (1982), 3.

- Mosher, Arthur T. Getting Agriculture Moving: Esentials for Development and Modernization. New York, NY: Fredrick A. Praeger, Publishers, 1966.
- Mosher, Arthur T., To Create A Modern Agriculture: Organization and Planning. New York, NY: The Agricultural Development Council, Inc., 1971.
- Mosher, Arthur T. Three Ways to Spur Agricultural Growth. New York, NY: International Agricultural Development Service, 1981.
- Nesman, Edgar G. Participacion Popular y Desarrollo. Alajuela, Costa Rica: Alfalit Internacional, 1981.
- Neuhaus, Richard John. "A Dirt Farmer Talks About Hunger." The Christian Century, Vol. 93 (1976), 213-214.
- Ntiri, George, Milla McLachlan and Mary J. Pigozzi. Education and Agriculture. East Lansing, MI: The NFE Exchange, Michigan State University, Issue No. 19, 1980.
- Oluwasanmi, H. A. "Socio-Economic Aspects of Feeding People." The World Food Conference Proceedings (1976), 87-101.
- Opler, Morris E. Social Aspects of Technical Assistance in Operation. Paris: UNESCO, 1954.
- Paarlberg, Don. "An Appraisal of World Food Prospects." Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 2-13.
- Pigozzi, Mary Joy. "Can Participation Enhance Development?" East Lansing: The NFE Exchange, Michigan State University, Issue No. 20, 1981.
- "Peasant Needs are Prime Concern in Training Scheme." Ceres FAO Review on Agriculture and Development Vol. 14 (July-August 1981), 8-9.
- Poats, Rutherford M. Technology for Developing Nations: New Directions for U.S. Technical Assistance. Washington, D.C.: The Brookings Institution, 1972.
- Rhoades, J. Benton. "A Church Looks at Agricultural Development" (Unpublished Paper presented to the Lutheran Church in America, Division of World Missions and Ecumenism meeting, New York, New York. September 1977.) Mimeo. New York, NY: Agricultural Missions, 1977.
- Schultz, Theodore W. "What Are We Doing to Research Entrepreneurship?" Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 96-105.

- Schumacher, E. F. Small is Beautiful: Economics as if People Mattered. New York, NY: Harper and Row, Publishers, 1973.
- Sen, Samar R. "Barriers to Developing and Transforming Knowledge into Food Internal to the Developing Countries." Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 152-161.
- Shields, James J., Jr. Education in Community Development: Its Function in Technical Assistance. New York, NY: Frederick A. Praeger, Publishers, 1967.
- Srinivasan, Lyra. Perspectives on Nonformal Adult Learning. New York, NY: World Education, 1977.
- Valentei, Dmitri. "Few Population Curbs Without Social Progress." Development Forum, Vol. X, No. 9 (1982), 16.
- Wharton, Clifton R., Jr. "The Role of the Professional in Feeding Mankind: The Political Dimension." The World Food Conference Proceedings (1976), 3-13.
- Wittwer, Sylvan H. "Transforming Knowledge into Food: Comment." Proceedings of a Seminar Jointly Sponsored by the American Academy of Arts and Sciences and the University of Minnesota (April 1977), 79-85.
- Wortman, Sterling and Ralph W. Cummings, Jr. To Feed This World the Challenge and the Strategy. 1st Ed. Baltimore, MD: The John Hopkins University Press, 1978.



APPENDIX  
INSTRUMENTS

Form #1 - Villagers and Village Leaders (Village Level)

(1) ¿Qué importancia tiene para el desarrollo en la comunidad?						(2) ¿Cuánto se ha logrado en su comunidad?												
Sin importancia ↓ Excepcionalmente importante						Ningún logro ↓ Casi todo logrado												
												0	1	2	3	4	5	0
Comunidad: _____						Nombre: _____												
Años trabajando con los programas de CEDEN _____						Los mayores productos agrícolas o ganaderos que Ud. trabaja o maneja son: _____												
Forma #1: Campesino y Líderes.						Por favor indique: (1) En la columna de la izquierda, ¿Qué importancia da Ud. a las metas siguientes para el desarrollo de la comunidad en Honduras? (2) En la columna de la derecha, ¿Hasta donde piensa Ud. que las metas siguientes se han logrado en su comunidad?												
												1. Disponibilidad de tierra cultivable igualmente a todos los productores.						
												2. Participación total de los habitantes en la planificación de los proyectos de la comunidad.						
												3. Equipo agrícola apropiado y disponible localmente.						
												4. Desarrollar planes a largo plazo para la comunidad.						
												5. Seleccionar promotores y agentes de extensión calificados.						
												6. Vivienda adecuada y disponible para toda la gente.						
												7. Seleccionar líderes comunales calificados.						
												8. Pagar créditos o préstamos agrícolas.						
												9. Amplio programa de desarrollo de la comunidad en funcionamiento, incluyendo todas las áreas que los habitantes piensan que ellos necesitan.						
												10. Mercados disponibles y adecuados para vender los productos de la finca.						
												11. Concejo o comité de planificación organizado, establecido y funcionando.						
												12. Precios razonables para los productos de la finca.						
												13. Evaluación de los proyectos de desarrollo de la comunidad tanto por el CEDEN como por sus habitantes.						
												14. Transporte disponible y adecuado de la finca al mercado y de éste a la finca.						
												15. Objetivos medibles establecidos y acordados entre los habitantes o campesinos y CEDEN con un entendimiento claro de las responsabilidades de cada uno.						
												16. Resultados disponibles de los programas de investigación agrícola.						
												17. Cooperación entre la comunidad y el gobierno.						
												18. Establecer cooperativas agrícolas.						
												19. Cooperación entre la comunidad y CEDEN.						
												20. Empleo disponible fuera de cosecha y fuera de la finca.						
												21. Participación total de los habitantes en la ejecución de los proyectos de la comunidad.						
												22. Agua potable disponible en o cerca del hogar.						
												23. Mejoramiento de la tierra para cultivar. (riego, drenajes, movimiento de rocas y troncos, control de la erosión.)						
												24. Disponibilidad y uso de facilidades sanitarias en cada hogar.						
												25. Insumos agrícolas apropiados y disponibles localmente.						
												26. Mejoramiento de la salud familiar.						
												27. Demostrar interés y entusiasmo por parte de los promotores y agentes de extensión.						
												28. Créditos agrícolas disponibles y adecuados.						
												29. Visitas de los promotores de CEDEN frecuentemente.						



Form #2 - Promoters (Village Level)

(1) ¿Qué importancia tiene para el desarrollo en la comunidad?						(2) ¿Cuanto se ha logrado en las comunidades bajo su supervisión?						
Sin importancia						Mínimo logro						
→						→						
Extremadamente importante						Casi todo logrado						
0	1	2	3	4	5	0	1	2	3	4	5	
						Nombre: _____						
						Ocupación y especialidad: _____						
						Cuántas comunidades están bajo su supervisión? _____						
						Años trabajando con CEDEN: _____						
						Forma #2: Promotor						
						Por favor indique: (1) En la columna de la izquierda, ¿Qué importancia da Ud. a las metas siguientes para el desarrollo de la comunidad en Honduras? (2) En la columna de la derecha, ¿Hasta dónde piensa Ud. que las metas siguientes se han logrado en las comunidades bajo su supervisión?						
												1. Disponibilidad de tierra cultivable igualmente a todos los productores.
												2. Participación total de los habitantes en la planificación de los proyectos de la comunidad.
												3. Equipo agrícola apropiado y disponible localmente.
												4. Desarrollar planes a largo plazo para la comunidad.
												5. Seleccionar promotores y agentes de extensión calificados.
												6. Vivienda adecuada y disponible para toda la gente.
												7. Seleccionar líderes comunales calificados.
												8. Pagar créditos o préstamos agrícolas.
												9. Amplio programa de desarrollo de la comunidad en funcionamiento, incluyendo todas las áreas que los habitantes piensan que ellos necesitan.
												10. Mercados disponibles y adecuados para vender los productos de la finca.
												11. Concejo o comité de planificación organizado, establecido y funcionando.
												12. Precios razonables para los productos de la finca.
												13. Evaluación de los proyectos de desarrollo de la comunidad tanto por el CEDEN como por sus habitantes.
												14. Transporte disponible y adecuado de la finca al mercado y de éste a la finca.
												15. Objetivos medibles establecidos y acordados entre los habitantes o campesinos y CEDEN con un entendimiento claro de las responsabilidades de cada uno.
												16. Resultados disponibles de los programas de investigación agrícola.
												17. Cooperación entre la comunidad y el gobierno.
												18. Establecer cooperativas agrícolas.
												19. Cooperación entre la comunidad y CEDEN.
												20. Empleo disponible fuera de cosecha y fuera de la finca.
												21. Participación total de los habitantes en la ejecución de los proyectos de la comunidad.
												22. Agua potable disponible en o cerca del hogar.
												23. Mejoramiento de la tierra para cultivar. (riego, drenajes, movimiento de rocas y troncones, control de la erosión.)
												24. Disponibilidad y uso de facilidades sanitarias en cada hogar.
												25. Insumos agrícolas apropiados y disponibles localmente.
												26. Mejoramiento de la salud familiar.
												27. Demostrar interés y entusiasmo por parte de los promotores y agentes de extensión.
												28. Créditos agrícolas disponibles y adecuados.
												29. Visitas de los promotores de CEDEN frecuentemente.





Form #3 (Continued)

(1) ¿Qué importancia tiene para el desarrollo en la comunidad?						(2) ¿Cuánto se ha logrado en las comunidades de Reducto y/o La Ceiba?						
Sin importancia						Ningún logro						
→						→						
Extremadamente importante						Casi todo logrado						
0	1	2	3	4	5	0	1	2	3	4	5	
												30. Mejoramiento del ambiente y las condiciones de vida en el hogar.
												31. Visitas de los agentes de extensión del gobierno frecuentemente.
												32. Reducción en la mortalidad infantil.
												33. Facilidades recreacionales adecuadas y disponibles.
												34. Servicio de salud y medicinas disponibles.
												35. Demostración de afecto y hermandad entre los miembros de la comunidad.
												36. Consumir diariamente una dieta balanceada.
												37. Prudencia y uso racional del dinero y recursos disponibles por parte de los habitantes de la comunidad.
												38. Disponibilidad de planificación y educación familiar.
												39. Promotores de CEDEM y agentes de extensión adecuadamente entrenados.
												40. Educación primaria adecuada y disponible localmente.
												41. Líderes de desarrollo comunal bien entrenados. (en agricultura y salud, etc.)
												42. Educación secundaria adecuada y disponible localmente.
												43. Saber leer y escribir.
												44. Disponibilidad de cursos de entrenamiento adecuados para jóvenes y adultos localmente.

45. En los últimos 5 años en las comunidades de Reducto y/o La Ceiba ¿ha mejorado? ¿está lo mismo? ¿ha empeorado?

- a) agricultura: \_\_\_\_\_
- b) salud: \_\_\_\_\_
- c) educación primaria: \_\_\_\_\_
- d) cooperación: \_\_\_\_\_
- e) educación de adultos: \_\_\_\_\_
- f) nivel de vida: \_\_\_\_\_

46. ¿Cuáles son los 3 problemas mayores que tiene actualmente la comunidad?

- 1.
- 2.
- 3.







N  
VITA

Darryl Vernon Mortensen

Candidate for the Degree of

Doctor of Education

**Thesis:** PERCEPTIONS OF SELECTED GOALS IN VILLAGE DEVELOPMENT FOR HONDURAS BY THREE LEVELS IN THE DEVELOPMENT CHAIN

**Major Field:** Agricultural Education

**Biographical:**

**Personal Data:** Born in Santa Barbara, California, March 6, 1938, the son of Ernest and Eva Mortensen.

**Education:** Ventura College, Ventura, California, 1956-59; Bachelor of Science in Agronomy, University of California, Davis, California, 1961; Chico State College, Chico, California, 1961-62; Master of Education, University of California, Davis, California, 1967; University of Michigan, Thai Language Training, Summer 1962; Spanish Language Institute, Costa Rica, 1976-77; completed requirements for the Doctor of Education degree at Oklahoma State University, Stillwater, Oklahoma, July 1984.

**Professional Experience:** IBM Machine Operator, Port Hueneme, California, 1956-59; U.S. Peace Corps Volunteer, Tung Song Vocational Agriculture School, Southern Thailand, 1962-64; Agricultural teacher, Dixon High School, Dixon, California, 1965-68; Agricultural instructor, Ventura College, Ventura, California, 1968-69; U.S. Peace Corps Technical Representative, Thailand, 1969-71; Agriculturist for the Island of Rota, Mariana Islands, 1971-76; Agricultural teacher, Guam Vo-Tech High School, Guam, 1975-76. Agricultural missionary, La Ceiba, Honduras, 1977-1982. Graduate Research Assistant, Oklahoma State University, August, 1982 to present.