

CULTURAL CHANGE IN A COSTA RICAN VILLAGE

by

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TABLE OF CONTENTS

	Page
Chapter I. Introduction	1
A. Background for the problem.	1
B. The problem	5
General problem: "Why people accept, and resist, changes in the fields of agriculture, health and nutrition."	
C. Sub-problems:	6
1. An ethnographic report of San Juan Norte.	6
2. The changes, if any, that had occurred in the last two years in selected practices in agriculture, health and nutrition.	7
3. The avenues, formal or informal, through which these changes were attempted or accomplished.	8
4. The images villagers had of agents or agencies of change.	8
5. An analysis of a process of cultural change, with specific practices (see sub-problem 2, above) as points of focus	8

6. Some theoretical principles concerning cultural change.	10
7. The possibilities of using the rural teacher as a change agent in so-called underdeveloped areas.	10
Chapter II. Methods of Procedure	12
A. Relevant literature.	12
B. Selection of the community.	12
C. A schedule for school teachers.	14
D. Interviews with other change agents.	15
E. A schedule for male heads of family.	15
F. A schedule for the housewife.	18
G. Additional schedules on occupation, the family and religion.	19
H. Actual entry into the community.	19
I. A conference with the people.	21
J. Schedules for intensive interviews on three selected practices.	23
K. Judges and interviews on status.	28
L. Informal techniques.	31
M. Analysis.	32

	Page
Chapter III. San Juan Norte: A Peasant Village	33
A. The land and the people.	33
1. Location	33
2. The population	39
3. Cultural characteristics: the round of life.	41
B. The economy	42
1. Land-tenure system	42
a. Ownership	42
b. Acquisition	43
c. Operation	46
d. Some consequences of the system.	47
2. Type of farming.	49
3. Division of labor.	52
4. Attitudes toward land and farming and some agricultural agencies.	54
C. The family	59
1. The local family.	60
2. Kinship lines beyond the village.	64
3. Courtship and marriage.	65

	Page
D. Religion	67
1. Religious structure	68
2. Religion and daily life	69
3. Religion and recreation	71
4. Religion and the crises of life	76
5. Religion and a meaning of life.	80
E. Education	81
1. The school and the teacher	81
2. The home	84
3. The church	86
4. Other sources of education	86
F. Government	87
G. Stratification	90
1. Occupation and wealth	92
2. Power (leadership)	93
3. Social class strati- fication	95
H. Level of living	98
1. Diet.	98
2. Health.	99
3. Housing.	104
4. Clothing.	104

	Page
Chapter IV. An Analysis of Cultural Change	106
A. The history of the study of cultural change.	106
B. Theoretical framework	113
C. Practices in agriculture	117
1. Chlordane: A success in a conscious attempt at change.	117
2. Home vegetable gardens: A failure in a conscious attempt at change.	130
3. 10J sugar cane: A spontaneous change in an agricultural practice.	143
4. Summary and conclusions.	150
D. Theoretical conclusions	155
E. Practical conclusions	163
Chapter V. General Summary and Conclusions	172
A. General summary.	177
B. Conclusions	179
Selected Bibliography	182
Appendix: The schedules.	186

TABLES

Number	Title	Page
1.	Characteristics of a Village Universe Relevant for the Selection of Judges, 1953	29
2.	Characteristics of Selected Judges, 1953.	30
3.	Age and Sex Pyramid, San Juan Norte, 1953.	39
4.	Distribution of Landholding in San Juan Norte, 1953.	43
5.	Patterns of Acquisition of Land in San Juan Norte, 1953.	46
6.	Farms Beyond San Juan Norte, 1953.	48
7.	Land Use in San Juan Norte, 1953.	49
8.	Work Status of Eldest Males, 1953.	53
9.	Sources of Information on Agriculture, San Juan Norte, 1953	56
10.	Age and Marital Status, San Juan Norte, 1953	66
11.	Leadership Structure of San Juan Norte, 1953	94
12.	Parasitic Infection, Turrialba, 1951	100
13.	Consumption of Vegetables by Family in San Juan Norte, 1953.	137
14.	"Cultural" Reasons Given for not Cultivating Gardens, San Juan Norte, 1953.	140
15.	Technical Reasons Given for not Cultivating Gardens, San Juan Norte, 1953.	141

ILLUSTRATIONS

Title	Page
Map of Costa Rica	36
Map of The Larger Community of Turrialba	37
Map of San Juan Norte	38
Family Structure of San Juan Norte	61
Program for the Corpus Christi-San Isidro Festival	75
Visiting Among Families in San Juan Norte, Turrialba, Costa Rica.	96

I. INTRODUCTION

A. Background for the problem

For the past six years, there has been a cooperative agreement between the Inter-American Institute of Agricultural Sciences (IAIAS) and Michigan State College (MSC), whereby the Turrialba area of Costa Rica serves as "a field laboratory for sociological and anthropological research and a training ground for area specialists." At the same time the agreement enables the Institute to take advantage of the "extensive resource of technical personnel from the staff at MSC," and to train some of its personnel at the college.

This cooperative work is carried out through the Department of Economics and Rural Life of IAIAS. It is primarily concerned with the Community Development Program which came to life six years ago. The general objective of this program is to "ascertain the most effective means of stimulating community development through education, conceived in its broadest meaning."¹ Answers to two fundamental questions are being sought through the research that is being carried out: (a) How does community development occur? (b) How can one stimulate community develop-

¹ "Community Development" is conceived of as "the process by which the individuals of a community secure the fullest possible expression of their personalities through individual and group action." See Julio O. Morales, Community Development Program, Unpublished paper, Turrialba, C. R.: I.A.I.A.S., 1953.

ment by educational means? In actual operation, there is an implicit assumption in the program to the effect that "raising" the levels of living of a community is tantamount to the "development" of a community.²

Since it was necessary to have some basic information on the community of Turrialba (the object of investigation at IAIAS), several studies were conducted by IAIAS and MSC personnel. In cooperation with the National Census Office of Costa Rica, a population and agricultural census of the first district of the Turrialba canton was undertaken in 1948. In that same year a sociological survey was carried out in the Turrialba area, in which a sample of 519 rural and 148 town families was studied. A study of social stratification in Turrialba City was undertaken in 1950.³ In 1949 a health study was made. Another, a nutrition study, was made in 1950, and in 1951 a medico-clinical study was completed. A sample of 137 rural families was investigated in each of these separate but related studies.

The findings from these studies provided the factual basis for an educational program -- the "Project of Education" -- which the Department undertook in 1950. The pro-

²Dr. Morales, in a recent talk with the writer, conceives of community development as the "growth" which occurs when individuals or groups of people become aware of "problems," study alternatives for the solution of those problems and freely decide among themselves either to choose any alternative or to refrain from acting in relation to them. Awareness of "problems" and decision-making are assumed to contribute to "growth" or development of individuals and/or groups.

³See Sakari Sariola, Social Class and Social Mobility in a Costa Rican Town, unpublished Ph.D. thesis, IAIAS, Turrialba, C. R., 1952.

gram was based on the assumption that the rural teacher, in addition to teaching in the school, could be efficiently used as a change agent to bring about certain changes in the communities -- changes which the IAIAS considered urgent after analysis of the above-mentioned studies. It was also assumed that these desired changes would contribute to the development of the community.

The IAIAS, in cooperation with the Costa Rican Ministry of Education, instituted a training course for teachers late in 1950. Twenty-four rural teachers were selected for a two-month course, which was to give basic information on agriculture, health and nutrition, at the same time the teachers were to be given sufficient orientation in the community to make them effective change agents. Basic information on health was offered by a local public health physician from the Ministry of Health. Under health were included such subjects as nutrition and health, common diseases and their treatment and prevention, child care and auxiliary first aid. A home economist from the Extension Department of the Ministry of Agriculture was in charge of providing information on "home improvement", which included such topics as the preparation of new dishes. An extension agent from IAIAS demonstrated how the rural home could be "improved" in its physical appearance, and sanitary facilities. Information on agriculture came from a professor from IAIAS, who stressed the cultivation of home vegetable gardens, soil conservation practices and the use of fertilizers. The role of 4-S clubs (the equivalent of 4-H clubs

in the United States) was explained by the national director of 4-S clubs.

The pedagogical aspect of the training course was handled by personnel from the Ministry of Education. A review of the audio-visual method of reading was undertaken, with emphasis on rural themes as didactic material.

The "community orientation" of the whole program -- that is, how teachers could be made into effective change agents in the several villages -- was undertaken by a sociologist. Teachers were given information on community organization and structure, on leadership patterns (especially on the effective use of leaders) and on the use of formal and informal groups as aids in bringing about change.

It was realized that two months was a very short time for the objectives of the program. As a result it was arranged that all the teachers who participated in the program were to be visited periodically by IAIAS education personnel. They were also to meet, as a group, every month for a sharing of experiences.⁴

After the training period the teachers were sent to ten communities in the Turrialba area, the area previously selected for the experiment.. Eight of these communities were called "experimental" villages, the others "semi-

⁴ Eduardo Arze Loureiro, El Maestro Y La Educacion Y Organizacion De La Comunidad Rural, unpublished pamphlet, Turrialba, C. R., IAIAS, 1951.

experimental".⁵ The basis for classifying a community as experimental or semi-experimental was the relative amount of basic information on population, health and nutrition for each community. Those communities in which IAIAS surveys -- sociological, health and nutrition, and medico-clinical examinations -- had been conducted were classified as experimental; those communities in which these IAIAS surveys had not been made were classified as semi-experimental.

In the past, agricultural extension students from the Department of Economics and Rural Life (commonly referred to as "The Department") have regularly done extension work in several villages in and beyond the Turrialba area. It was assumed that they had introduced changes in the communities they had visited.

Late in September of 1952 a new unit, called the Evaluation Project, was set up in the Department, with the task of finding out the consequences of the presence of the newly trained teachers in the several communities. The present study developed in connection with this Evaluation Project.⁶

B. The problem

General problem: In the past, rural teachers, IAIAS extension students and other agents or agencies of change

⁵ Ibid., p. 8.

⁶ The project is under the leadership of Mr. Antonio M. Arce, a graduate from Michigan State College.

(the local county extension agent, the local health officer, the local hospital, the newspapers) have attempted to introduce new practices or to modify existing ones in a variety of communities. It would follow logically that people had accepted or rejected, either in part or completely, some of these changes. The main task of the investigation which was undertaken in the village of San Juan Norte, broadly conceived, was to find out "Why people accept, and resist, changes in the fields of agriculture, health and nutrition."

Sub-problems: The general problem was subdivided, for clarity in the research design, into the seven sub-problems which are discussed below. Some of these sub-problems -- Nos. 2, 3, 5 and 6 -- are logical corollaries of the general problem. Sub-problem 1 provides the socio-cultural background for an understanding of a process of cultural change as exhibited in the village.

1. An ethnographic report of the village of San Juan Norte.

An ethnographic report was considered necessary for three principal reasons. First, a description of the village as it was during the time of this study will provide a comparative situation for later studies. The theoretical assumptions here are simply that change (and attempts to introduce change) will eventually be reflected in the ethnographic structure of the village. Later ethnographic investigations can then be measured against this one, the differences reflecting the possibilities of cultural change.

Secondly, it is expected that San Juan Norte will be subjected to specific attempts at community development.⁷ An ethnographic report should provide a clearer picture of village organization, bringing out certain variables which would otherwise remain hidden and which could be of importance to future attempts at introducing change.

The third reason for the ethnographic report was to provide a total picture of the village at the time of the study, including as many variables as possible, so that if a practice was accepted or rejected some idea of the reason for its acceptance or rejection could be established by referral to the cultural system portrayed in the ethnographic report.

2. The changes, if any, that had occurred in the last two years in selected practices in agriculture, health and nutrition.

In the field of agriculture, practices were selected in such areas as soil conservation, new varieties in crops which already existed, cattle-raising, the use of insecticides and the use of fertilizers; in health, practices such as boiling drinking water and visits to the physician; in nutrition, practices dealing with diet. Changes in these selected practices would serve as an index of change. A time span of two years was selected for two reasons: 1) The experiment with school teachers had been going on for two

⁷ A graduate student from Colombia plans an economic study of the village.

years, and 2) changes taking place within two years would be fresher in the minds of villagers than long-time changes.

3. The avenues, formal or informal, through which these changes were attempted or accomplished.

In this instance, an attempt has been made to determine mechanisms or agents of change, such as, the teacher, the local extension agent, newspapers, magazines, the radio, and informal ("word of mouth") contacts.

4. The images villagers had of agents or agencies of change.

Much has been said about the importance in cultural change of the "images" the recipients of change have of the donors of change. Under the assumption that images are of crucial importance, it was thought desirable to discover the villagers' conception of those agents or agencies whose main function is to "benefit" them. More will be revealed about the crucial nature of images in sub-problem 6.

5. An analysis of a process of cultural change, with specific practices (see sub-problem 2, above) as points of focus.

For the purposes of this study, culture is taken to mean the standardized ways that a group has of perceiving things or situations, of thinking and of feeling about them and of acting towards them. The prevailing way of life of the group, the habits, is the culture of that group. Things--material or non-material, such as a variety of corn or a conception of a deity--are considered of importance in so far as they serve as points of focus for clusters of habits,

for segments of the total culture.

Culture is to be analytically separated from "society," which term refers to the group itself -- that is, to the group of individuals who possess that culture. By the process of cultural change is meant the dynamics of all the factors, or variables, which are interrelated and work with each other to change standardized ways of doing things, perceiving things and so forth.⁸ This is to be contrasted with social change, which is taken to mean changes in the structure of society (that is, changes in the arrangement of positions in society).⁹ Put in other words, a group may remain the same in structure, yet its way of doing things--its culture--may change.¹⁰ The present field investigation is concerned mainly with cultural change, that is, change in habits, rather than with social change, that is, change in the structure of society.

The interests of the present investigation are not with "a" process of cultural change as such, assuming such an

⁸ The process of cultural change involves human or social action. Ideally, then, a complete analysis of it should consider parsons four criteria for defining social action: ends of the action, means for accomplishing it, norms which govern the use of those means, and the conditions under which the action takes place. (See T. Parsons, The Structure of Social Action, Glencoe, Illinois: The Free Press, 1949, passim.)

⁹ For a conceptual differentiation of social structure and social organization, see Gordon Brown and James H. Barnett, "Social Organization and Social Structure," American Anthropologist, 44, pp. 31ff. theory and American
neil Bulle

¹⁰ See J. H. Steward, Area Research: Its Theory and Practice, New York: Social Science Research Council Bulletin 63, 1950, pp. 98ff.

investigation were possible, but with "processes" in cultural change. No attempt was made to investigate probable changes in the general areas of family organization, religion, education, etc.

Moreover, it was felt that research into cultural change is facilitated by confining the investigation to changes, over a defined unit of time, in the habits which are associated with specific cultural items. Thus, specific practices in agriculture and health-nutrition were selected for analysis, rather than the mere presence or absence of certain items.

6. Some theoretical principles concerning cultural change.

An attempt to point out the practical applications which these principles may have for action programs.

7. The possibilities of using the rural teacher as a change agent in so-called under-developed areas.

In many of the so-called under-developed areas of the world the rural teacher is one of the most important contacts between village institutions and city-national institutions. The potentialities for using him as an effective change agent, either in a direct capacity or as a catalyst for bringing about change, are realized by many.¹¹ The Department of Economics and Rural Life (IAIAS) is attempting to make the best use of the teacher for realizing some of the

¹¹ It has been roughly estimated by the Department of Economics and Rural Life that there are about 300,000 rural teachers and from 5,000 to 6,000 agricultural extension agents in Latin America. (Anuario Estadístico Latinoamericano, published in Argentina).

ends the Department deems desirable. An attempt will be made to analyze (1) what the teacher has been able to do, (2) the conditions under which he has worked and (3) the possibilities for using him most effectively.

II. METHODS OF PROCEDURE

A. Relevant Literature

Reading of the technical literature in the area of social and cultural change had already been undertaken before arriving in Costa Rica.¹ Such research was continued during the preliminary stages of the field work.²

Furthermore, the author has made a serious attempt to see Costa Rican life as it is seen through Costa Rican eyes. Novels and essays written by Costa Rican authors were read as additional sources for information on the customs of the country.³ Considerable insights into Costa Rican culture have been gained through such reading, since many writers portray national customs which might otherwise be overlooked by an investigator not native to the country.

B. Selection of the community

IAIAS investigations among the eight experimental and two semi-experimental villages have revealed two distinct types of villages: the village of small proprietors and the village of hacienda workers. A third type, a sort of hybrid, occurs when a village contains both small and medium proprietors and elements of the hacienda type. This typology

¹See selected Bibliography, numbers 4, 18, 19, 31, 38, 45, 49.

²See selected Bibliography, numbers 1, 6, 12, 13, 14, 16, 24, 25, 37, 43, 44, 46, 47.

³See selected Bibliography, numbers 2, 8, 10.

emerged from information regarding type of farming, land tenure, means of communication and levels of living.

The selection of the area for this report was, of course, primarily determined by these IAIAS investigations: it would be one of the villages on which there was a maximum of information and in which some IAIAS work had been done. This was necessary for two reasons: limitations of time made previously obtained information important, and IAIAS work within the village made possible the selection of well-defined practices for the study.

The original plan of this study called for a comparison of two similar villages, one from the eight IAIAS experimental villages and one, a control, from outside the Turrialba area. Since, however, information on villages out of the Turrialba area was meager, it was necessary to revise the approach. The second plan called for an intensive study of one of the small proprietor villages, followed, if time permitted, by an equal study of an hacienda village. Both were to be selected from the eight IAIAS experimental villages. At a future date one or more control villages would be selected and compared to the community or communities investigated in this phase of the study.

Limitations of time forced the postponement of the study of the hacienda type village⁴ with the result that this

⁴The village of Pavas, a clear-cut example of the hacienda type, was selected as the second village. In size and degree of isolation it very closely resembles San Juan Norte.

report is based on San Juan Norte, the village selected from the small proprietor type.

San Juan Norte was selected because it was a clear-cut example of a village of small proprietors. Its population was fairly small and therefore it was possible to become acquainted with all the families in the village.

C. A schedule for school teachers

Since it was known that the teachers had attempted to bring about cultural change in the local villages, and one of the problems of this study was to assess the consequences of these attempts at change, a schedule was constructed to be administered to the teachers (see Appendix). It was decided to ask all teachers, in both the experimental and semi-experimental villages, what practices they had attempted to introduce in agriculture, nutrition, health, housing, clothing and "communal organization."⁵ They were also asked to list those practices they considered successfully introduced and those which had been failures. This schedule gave some basic idea of what to include in a later general schedule on practices. Since this general schedule on practices was to be administered to samples from the many villages in the Turrialba area, only those practices were selected from the teachers' schedule which had been commonly stressed by all teachers, regardless of whether the teacher had succeeded or failed in the attempt to introduce them.

⁵"Communal Organization" was a catch-all term designated to include items such as the creation of clubs (agriculture, housewife, music, sports, etc.) attendance at village festivals, and so forth.

D. Interviews with other change agents

In addition to ascertaining those changes brought about by the teacher, it was necessary to investigate probable changes resulting from contact with other agents or agencies of change. To this effect, it was necessary to contact the local agricultural extension agent on practices in agriculture which his agency had stressed in the local villages. Among those interviewed was an agricultural extension agent who formerly had worked in the Turrialba area. Two home economists, both of whom were, or had been, connected with the work of IAIAS in the Turrialba area were also interviewed. With this information, and that previously obtained on practices which are common (and which had been stressed by change agents) in agriculture, health, nutrition, clothing, housing and community organization, it was possible to construct two major schedules -- one for male heads of family, and another for housewives.

E. A schedule for male heads of family

In the construction of the schedule (which eventually will be administered to samples from villages in the Turrialba area in addition to its use in San Juan Norte) the basic interest lay in ascertaining whether certain selected practices were followed in agriculture, health, nutrition, housing and communal organization. It was also important to know how long (if at all) the villagers had been following these practices and to discover the "source" of the practice. If the practice was not followed, it was necessary to ascertain whether the informant had ever heard

about it, and from whom. Open questions were included to discover probable changes in practices not revealed through the questions on specific practices. Again, the interest was in the time and source of the change.

The eventual correlation of several factors with the acceptance or rejection of practices is of considerable importance. Among such factors are mobility, both of the family as a unit and of the male head, prestige of the individual, present economic position and feeling of having descended or ascended in the economic scale. For example: Are the most mobile families and persons more receptive to new practices? Are the persons with the most prestige more receptive to change? Are those economically better off more receptive to change? Since the schedule has been used in only one village, and the number of cases is relatively small, answers to the questions stated above will have to wait for additional work in the Turrialba area.

Questions were also asked which would elicit information on the avenues through which villagers get information in the fields of agriculture, health, etc. For example, what was the influence of newspapers, the radio or magazines in the acquisition of new information?

Since one of the sub-problems was investigating the possibilities of using the teacher as a change agent in rural communities, a section Imagen del Rol del Maestro (p. 23 of the schedule) was included. In addition several questions on the role of the teacher were asked in other sections of

the schedule.⁶

The schedule was also directed at discovering if informants were aware of problems in the special areas of agriculture, health, etc. Were any "needs" felt by villagers? Presumably felt need would eventually lead to cultural change.

The schedule for male heads of family was primarily concerned with changes in agriculture; in the schedule for the housewife changes in health and nutrition practices were stressed.⁷

The male head of family schedule was pretested twice in villages other than San Juan Norte: It was then revised, before use in San Juan Norte. In the field work at this village several questions were omitted from the schedule. This was done for several reasons: (a) it was thought that other, more informal techniques were better suited for parts of the investigation; (b) some of the questions seemed not to elicit the type of information in which we were interested, while others simply were not understood by villagers.⁸

⁶See Questions 49, 50, 62, 63, 68, 69.

⁷It should be noted here that this schedule will only permit conclusions on whether or not certain practices are followed in certain areas of agriculture. It will also permit deduction as to whether or not these practices are of recent origin and if they are, what the source was for their adoption. Although open questions were included which presumably would take care of practices which were not selected, there is a strong possibility that other changes have occurred which have not been revealed by the schedule. (See Questions 27, 34, 46).

⁸Questions 48, 52, 61, 67, 74, 89 were tried first, but discontinued when they seemed not to work. The responses to Questions 79, 80 and 81 were too irregular to be of much value. Questions 75, 76 and 77 were not used at all.

The schedule was administered to 47 male heads of the 60 families in San Juan Norte. There were two refusals; three male heads were unavailable; three lived in the same household with other kin, and worked in the same task as they (in this case only one male head was interviewed); one was feeble-minded; the male heads of four families were dead.

F. A schedule for the housewife

In constructing the schedule for the housewife (see Appendix) the orientation was the same as in the case of that for the male head of family: the major interest was in finding out if certain selected practices were followed in health, nutrition, housing and clothing. If they were followed, the schedule was aimed at determining when they had started and the source for the practices. Practically, the only difference between the two schedules is that one (male head of family) stresses practices in agriculture, while the other (housewife) stresses practices in health, nutrition, clothing and housing.

Like the schedule for the male head of family, the housewife schedule was pre-tested twice, revised--several questions were omitted--and then used in San Juan Norte.⁹

It was administered to 45 housewives. (Four housewives lived with other kin, there were three refusals, six were unavailable and two female heads of family were deceased).

⁹ Questions 24, 31, 41, 51, 64 were not used. The information on Questions 42, 43 and 44 was sketchy. Answers to Questions 56, 57, 58 were too irregular to be of much value.

G. Additional schedules on occupation, the family and religion

The schedule for the male head of family was supplemented with some additional questions on occupation, especially labor mobility (places of work, and whether the informant had remained away from the village). Another question was asked on the male head's extended family, e.g., his brothers who lived beyond the village, their place of residence, dates of departure and whether regular contacts were had with them. (See Appendix)

The schedule for the housewife was supplemented with some questions on the family and on religion. On the family, it was felt necessary to obtain information on ritual kinship (God-parents) in the village; in the religious field on church attendance, on the practice of evening prayers and on promesas (a form of a debt contracted with saints in exchange for some "help" from the saint). (See Appendix).

H. Actual entry into the community¹⁰

In one of the preliminary visits to San Juan Norte, one of the villagers (the son of a highly-esteemed farmer) had expressed a desire that someone take an interest in the community and make a study of its history. It was his opinion that such a study would be welcomed by the villagers

¹⁰

In the interests of making specific some of the types of problems encountered in the field, the following two sections "H" and "I" have been prepared directly from the field log kept by the author.

and that it would be of benefit to them. He reasoned that through such a study the village would become known to outsiders, and villagers, from both the present and future generations, would know something about their history. Later, when San Juan Norte was selected for study an education extension student from IAIAS and I communicated the news to several village leaders; one of whom was the father of the villager who had suggested that someone study San Juan Norte. The news was well received. Almost immediately it was decided that I sleep in the village's parochial house. There was some difficulty in finding a suitable place for meals but finally it was decided that I board at the home of the farmer whose son had originally suggested the study.

I arrived in San Juan Norte in the middle of the rainy season. It had been raining incessantly for several days, and since there was not much visiting I could do in the rain, I remained indoors most of the time. I did considerable informal talking with the family with which I was boarding. Since, presumably, I was interested in village history, I asked my host to introduce me to several of the old village residents and visited them several times for the aforementioned purpose.

In one of my preliminary visits to the village (to attend the celebration of the patron saint), I had taken some colored pictures of the village and its people. I took these slides with me to the village and showed them to villagers. People were very interested in seeing them,

since they were the first colored slides that they had ever seen. Word spread, and through these slides I became better known to the people. I also took black and white pictures of villagers presented them with copies, which were received with interest.

Since the rain was excessive and the dirt roads were bad during my first month in San Juan Norte, I did no formal visiting during this time, beyond those villagers with whom I was already acquainted.

About one month after my arrival in San Juan Norte, the two schedules, for the male head of family, and for the housewife, had been pretested, revised and were ready for use in the village. A set of questions was also added on occupation, the family, and religion.

I. A conference with the people

The actual administration of the schedules took a little over two months. The male head of family was interviewed after 2:30 in the afternoon; the housewife the following morning, after having asked permission from her husband. The interviews were proceeding without any difficulty; outwardly there was no sign of resentment. However, in the last round of interviews one of the local leaders called on the IAIAS educational extension student and said that rumors questioning the good faith of the study were going around the village. This leader said that several people had approached him and complained because the housewives were "being bothered with a lot of questions" -- in reality the housewife's schedule was rather short (about half an hour)

but there were several questions on religious practices. The leader said that some people were saying the study was going to be "used in the United States," and so forth. This leader took the position that he knew that the villagers' attitude was the product of "ignorance" but said that he was at a loss as to what to tell villagers who came before him, since he himself did not know exactly the purpose of the study. This information did not come to the author's knowledge until two weeks after it had been communicated to the extension student. In the meantime one villager refused to be interviewed. Another, though willing to be interviewed himself, said that his wife refused.

Since I was to remain in the village for one or two additional months, to finish the last round of interviews and also to do some further intensive interviewing on selected practices, I thought it wise to call a village meeting and to explain to the community the reasons for the two schedules--especially the reasons for certain touchy questions--and what I had yet to do. It was thought wise to try and dispel the fears regarding the supposedly anti-religious nature of the study and its "transfer" to the U.S.A. I communicated this plan for a conference to several village leaders and there was unanimous approval. Their enthusiasm and their comments suggested to me that there had been apprehension about the study even on the part of the leaders. I also consulted the local teacher, who said that several families had approached him with fears about the study. He suggested that the school send out invitations

for the meeting to parents. The local priest, in Turrialba City, was approached in relation to the study (although he had previously been notified about it by IAIAS personnel.

A meeting was called for a Sunday afternoon, in the galeron of the San Juan church. Attendance was quite high; heads of family from all sections of the village, leaders and non-leaders, attended. I was very frank with them; explaining my Spanish-American background and stressing at all times commonness with them. I explained my status at the IAIAS and at LSC and emphasized explicitly my respect for their way of life. I also tried to impress upon them my assimilation of some cultural traits of the village. There was a discussion period afterwards. From the point of view of improving relations--of increasing rapport with villagers--the conference was eminently successful. The comments that I heard about it later were very favorable; some of the jokes which I used at that time were even repeated in several households which I visited later.

It is very probable, I think, that if this conference had taken place at the beginning of the study, if the teacher had been consulted more explicitly and if the priest had been positively aligned with the study, the crisis situation would not have arisen.

J. Schedules for intensive interviews on three selected practices

A preliminary analysis of the male head and the housewife schedules revealed the almost unanimous adoption of the use of an insecticide (chlordan) for combating ants.

Apparently this practice had been introduced by IAIAS agricultural extension students. This practice was then selected for intensive study. In a similar fashion, it was found that although the cultivation of vegetable gardens had been stressed by several agents, the rural teacher being one of them, villagers had almost unanimously by-passed or rejected the practice. This practice was also selected for study. It was also found that all villagers who cultivated sugar cane had spontaneously adopted a new variety (Proefstation oost Java or P.O.J.). This practice was also selected for further study. The selection of these three practices was arbitrary, two of them, the use of chlordane and the rejection of vegetable gardens, were selected because they presented clear-cut cases of success or failure in the introduction of practices; the other, the use of the P.O.J. variety of sugar cane, because it represented a clear-cut case of spontaneous cultural change.

It was decided that intensive interviews, covering each of the three practices, be conducted on samples randomly selected from the local population. To this effect, three schedules were constructed. (The theoretical orientation which gave rise to the questions and the hypotheses which were set up are fully explained on pp.

The universe for the practice of chlordane (which will be designated by "a") was the 46 male heads of family for whom there was a questionnaire; it was assumed that everyone in the village used chlordane. The universe for the practice

of vegetable gardens (b) was the 35 male heads of family who had heard about the importance of cultivating vegetable gardens, regardless of whether or not they had a garden. The universe for POJ sugar cane (c), the new variety being cultivated, was the 27 male heads of family who plant sugar cane.

By selecting clear-cut cases of an almost total acceptance or rejection of a practice, certain statistical problems were done away with. Since the universes themselves were small, and the samples were also to be small, there would then be less danger of making spurious generalizations.

A decision was made to interview three groups of families. All three schedules (chlordanes, gardens and sugar cane) would be used with the first group. On the second group only two schedules, chlordanes and gardens, would be used. On the third, only the schedule on chlordanes was to be used. In this manner more schedules would be filled out for chlordanes, somewhat less for gardens and still less for sugar cane.

It was assumed that a total of twelve families--some to be interviewed on three practices, others on two, and others on one--would provide a sample large enough to get the information requested on the several schedules. (See Appendix). However, if after a preliminary analysis of the schedules it was found that the sample was too small--indicated by a too wide variety of answers to the several questions--then it would be increased. As it was, this was not the case. The answers were quite homogeneous.

As an aid in selecting a minimum number of families for the intensive interviews, the total universe, i.e., all village male heads of family for which there was a previous schedule, was divided into four strata:

1. Those who used chlordane, had heard about vegetable gardens, and cultivated sugar cane (persons who would be in each of the three universes a, b, c) ----- 23 persons.
2. Those who used chlordane, had heard about vegetable gardens, and who did not cultivate sugar cane (persons who would be in two universes a, b) ----- 11 persons.
3. Those who used chlordane, had not heard about vegetable gardens, and who cultivated sugar cane (persons who would be in two universes a, c) ----- 4 persons.
4. Those who used chlordane, had not heard about vegetable gardens, and did not cultivate sugar cane (persons who would be in only one universe, a) ----- 7 persons.

As an additional aid in getting a representative sample of village families, and to include, whenever possible, families from the several neighborhoods (areas) in the village, the village was divided into four areas, according to the ecological distribution of the population.¹¹

¹¹Area I: Dirt road leading from the church to the cemetery.
 Area II: Dirt road to the left of the church.
 Area III: Dirt road from the church leading to San Juan Sur
 Area IV: Dirt road leading from the dry goods store to the San Jose-Turriababa Road. (See map of San Juan Norte)

The final selection of the twelve families was based on two points: (1) the sample should not be biased in favor of any of the four strata mentioned above (p.26); (2) as far as possible a number of families from each of the four ecological areas mentioned above should be selected; this number should be proportionate to the number of families in each area.

A table of random numbers was used in the final selection of the families to be interviewed. The following is the relation of families interviewed and the practice: 6 families were questioned on chlordane, vegetable gardens and POJ sugar cane, 3 families were questioned on chlordane and vegetable gardens, 1 family was questioned on chlordane and POJ sugar cane and 2 families were questioned on chlordane only.

Answers in the preliminary twelve interviews, as it was pointed out, were fairly homogeneous, so the sample was not appreciably increased. In the final form: 13 male heads, out of 46, or a little less than a 1/3 sample, were interviewed on chlordane, 12 male heads, out of 35, or a 1/3 sample, were interviewed on vegetable gardens and 8 male heads, out of 27, or a 1/3 sample, were interviewed on POJ sugar cane.

Since the number of cases in each sample is rather small, no detailed tables of percentages will be presented. Wherever generalizations are made, such as "villagers are not in the habit of consuming vegetables," it is meant that a majority of cases in the sample exhibited such behavior and that therefore the probabilities are that most of the persons in

the universe would exhibit similar behavior.

K. Judges and interviews on status

Under the assumption that the social status (prestige) structure of the village could be discovered by special interviews with a number of villagers, a series of characteristics was set up to determine who these villagers, or "judges," were to be. It was thought that the variables of age, occupation, area of residence in the village, and years of residence in the village should be considered.

Table 1. presents the distribution of male heads of family for ages, occupation (i.e., extent of self employment), and area of residence.¹²

It was decided that only long-time residents of the village (persons who had resided in the community for at least 10 years) would be selected as judges. This would tend to nullify whatever preconceived notions of social status were brought into the community by new residents.

With these considerations in mind seven judges were selected. This number was arbitrary. Previous procedures used by other investigators in the Turrialba area were followed.¹³

¹²	Area I:	Families:	1-13, 22	
	Area II:	Families:	14-21	
	Area III:	Families:	23-33, 46-48	
	Area IV:	Families:	34-45	
	Area V:	Families:	49-60	(See map of San Juan Norte)

¹³ See selected bibliography, numbers 33, 37, 43.

Table 1. Characteristics of a Village Universe
Relevant for the Selection of Judges, 1953

<u>Characteristic</u>	<u>Number of Male Heads of Families</u>
Age	
20-29	11
30-39	19
40-49	9
50-59	8
60 and over	7
Total	54
Employment	
I Worked only or mostly on own farm	30
II Worked for others most or all the time	24
Total	54
Area of Residence	Number of Families
I	14
II	8
III	14
IV	12
V	12
Total	60

It was decided to select judges who would represent as far as possible the several ecological areas, the two occupations, and the various age classes. The actual selection of judges from within these areas, occupations, and age

classes was guided by the degree of rapport that the investigator had with the potential judges. (See Table 2).

Table 2. Characteristics of Selected Judges, 1953

<u>Judge</u>	<u>Age</u>	<u>Occupation</u>	<u>Area of Residence</u>	<u>Marital Status</u>
1	49	I	I	Widower
2	29	II	I	Married
3	22	II	II	Single
4	63	I	III	Married
5	39	I	IV	Married
6	33	I	V	Married
7	35	II	V	Single

The general introduction used with each judge ran as follows: "This will be my last set of interviews. I plan on talking with a few villagers, those with whom I have more rapport (tengo mas confianza). I have certain general opinions about San Juan Norte and I would like to check them against your opinion. I would not want to say, 'This is the opinion of the people of San Juan Norte', to find out later that this is not your opinion, but rather my opinion. This is the point: In several of the towns in which I have lived in Puerto Rico and in the United States, (and the same seems to hold for many villages in Costa Rica), people say that certain families in the community are more valuable (valen mas) than others; that other families have less value, and that some have the same value. Would you say that the same

holds for San Juan Norte -- that is, that here there are families which are more valuable than others and others less value, or would you say that in San Juan Norte there is no difference?

If the judges made qualifications such as "You mean differences in the amount of money," the answer would be, "Not exactly, I mean more valuable in a general sense, rather than in the money sense only."

On hand was a set of cards listing the 60 families of the village. It was to be presented to the judges if they said that differences in "value" existed in San Juan Norte. The judges would then be asked to put down in groups those families which were considered more valuable, less valuable, and so forth, and to divide the 60 families into as many groups as they thought were present in the village.

L. Informal techniques

Not all the field work in San Juan Norte consisted of administering schedules or conducting formal interviews. A good deal of time was spent in observing life in the village and in participating in festivals and ceremonies. During the period of residence in the village there were two deaths, offering opportunity to observe some of the relationships involved in death and burial ceremonies. Three children were born during the residence period, allowing observation of some of the relationships involved in birth.

An effort was made to live the life of the villagers, eating their food, attending their ceremonies and at times

walking with them to Turrialba City. For example, Holy Week was spent with the villagers, which included trips to Turrialba City to attend religious services. Frequent soccer games (the national sport of Costa Rica and the favorite recreational activity in San Juan Norte) offered further opportunity to participate in every day affairs.

Friendly calls were frequently made and the colored slides and black and white photographs proved invaluable in this respect. Many pictures were taken of local events and an effort was made to have the largest number of villagers possible see them.

A written record was kept of all information obtained through this "participant-observation." Each day the happenings and observations were recorded in a field book, later to be transferred to cards and classified and filed. These included all village happenings, personal observations and personal reactions considered to be relevant to the study.

M. Analysis

All questionnaires were personally analyzed without the aid of machines. Since the number of families was small, no attempt was made to analyze the data quantitatively, i.e., with quantitative precision. Rather, the analysis has been of a qualitative nature. The same holds true for the intensive interviews. Their analysis has been of a qualitative nature.

Whenever generalizations are made, and numbers or percentages are not given out, it is meant that the majority of villagers, or of the group under discussion, exhibited such behavior.

III. SAN JUAN NORTE: A PEASANT VILLAGE

A. The land and the people

1. Location. Costa Rica is the southernmost republic of Central America, with an area of 23,000 square miles. It is bordered by Nicaragua on the north and by Panama on the south. The population of 800,000 is mostly white and largely concentrated in the highland section (La Meseta Central) of the country. The Republic is divided into seven provinces. The provinces are divided into cantons and the cantons into districts. Each of these divisions and subdivisions contains a capital seat -- a city, town or village containing the local government offices.

The village of San Juan Norte is located in the Central District of Turrialba, which is part of the Canton of Turrialba. Turrialba canton is located in the Province of Cartago. (See map, p. 36).

Turrialba City, with a population of approximately 5,449 is the nearest trade center for San Juan Norte,¹ being about one hour on foot. It is located 55 miles east of San Jose, the capital city of the Republic. Its present location, at an altitude of 2000 feet, dates from the 1890's. Although a city, if one takes the size of its population as the sole criterion for defining degree of urbanization,

¹Boletín Informativo de Censos de 1950, Numbers 18-19, San Jose, C. R., 1951, p. 12.

Turrialba City has many rural features.² For one thing, 31 percent of its male heads of family working population is engaged in agricultural tasks on adjoining farms.³ The presence of oxen, cows, and horses in its streets, mostly unpaved, give the city a distinctly rural atmosphere.

San Juan Norte is located on the fringes of the Meseta Central (central plateau) at an elevation of approximately 4000 feet.⁴ It is exceedingly wet, with an annual precipitation of about 110 inches of rain distributed almost evenly throughout the year, except for relatively little rain in the months of February, March and April.⁵ Precipitation in the

²As Louis Wirth pointed out, size of population is a very unreliable index of urbanization. ("Urbanism as a Way of Life," American Journal of Sociology, 44, pp. 1-24).

³Agriculture and population census of Turrialba, conducted by IAIAS, 1948. Cf. H. W. Painter and E. Murillo, "Demographic Characteristics of the Population," C. P. Loomis, et al., Turrialba Social Systems and the Introduction of Change, Glencoe, Ill.: The Free Press, 1953, pp. 128-129.

⁴The highest point at San Juan Norte has an elevation of 1214.05 meters. (Instituto Geografico Nacional, San Jose, Costa Rica). The terrain is very hilly and therefore some sections of the village are at lower elevations.

⁵Juan Vinas, a nearby town which is at approximately the same elevation as San Juan Norte, has an annual rainfall of 113 inches. Turrialba, the other nearby town, 2,000 feet below San Juan Norte, has a precipitation of 95 inches. (Office of Meteorological Service, San Jose, C.R.)

See also Morrison and Leon, "Sequent Occupance, Turrialba Central District, Costa Rica," in Turrialba, 1, pp. 185-98.

months of November, December and January is at times distributed almost evenly throughout the day. It is rather cool, with a mean annual temperature of about 70° F. In the months of January and February temperatures in the low 50's are not infrequent.⁶

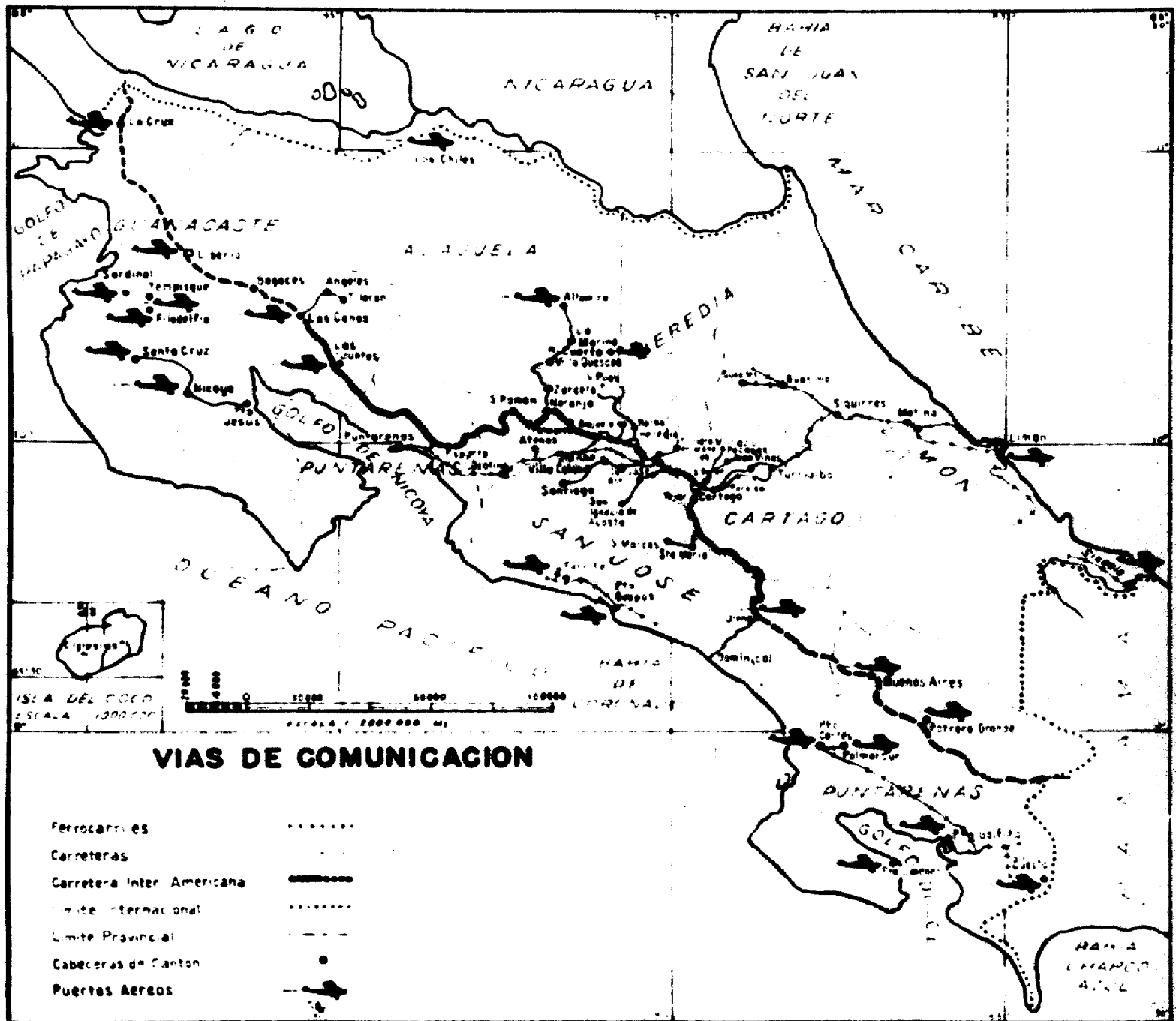
The arrangement of houses in the village follows no distinct pattern. At best it is a combination of the "line" and the "scattered" types⁷ -- there are houses close to the main dirt roads, although widely separated among themselves, and houses scattered away from the road. (See map of San Juan Norte, p. 38). These dirt roads become undescribably bad during the rainy season. San Juan Norte is located at about one hour's walking distance, the usual mode of transportation, from Turrialba and at 2000 feet above it. The capital city, San Jose, is located at about two hours by bus, from San Juan Norte.

⁶ The mean annual temperature at Juan Vinas is 70° F., at Turrialba it is 72° F.

See also Morrison and Leon, Ibid.

⁷ See C. P. Loomis and A. Beegle, Rural Social Systems, New York: Prentice-Hall, Inc., 1950, Chapter 7. T. Lynn Smith, The Sociology of Rural Life, New York: Harper and Bros., 1947, Chapter 10.

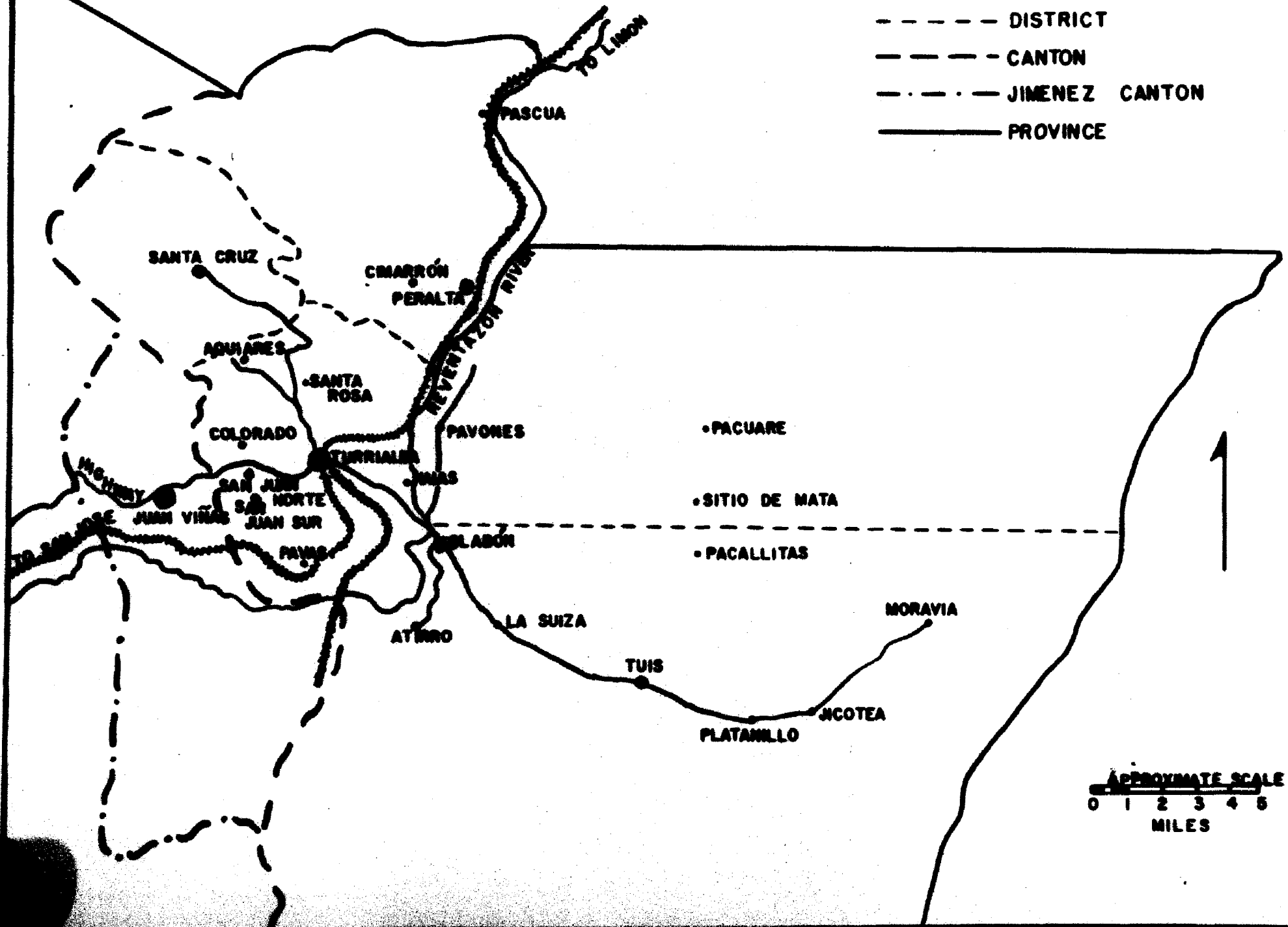
Map of Costa Rica



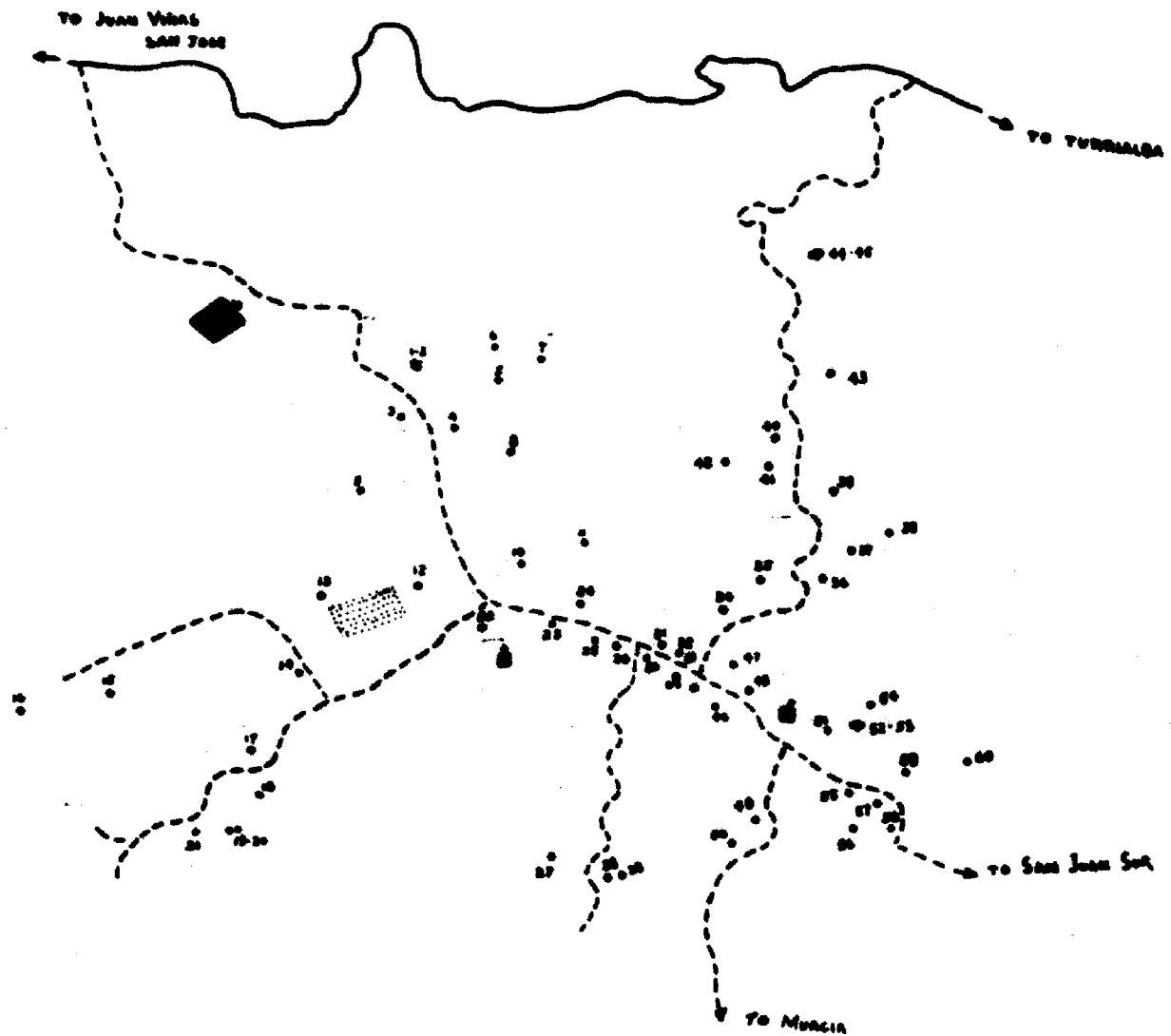
THE LARGER COMMUNITY OF TURRIALBA

1951

- DISTRICT
- - - - - CANTON
- . - . - JIMENEZ CANTON
- PROVINCE



San Juan Norte *Turrialba, Costa Rica*

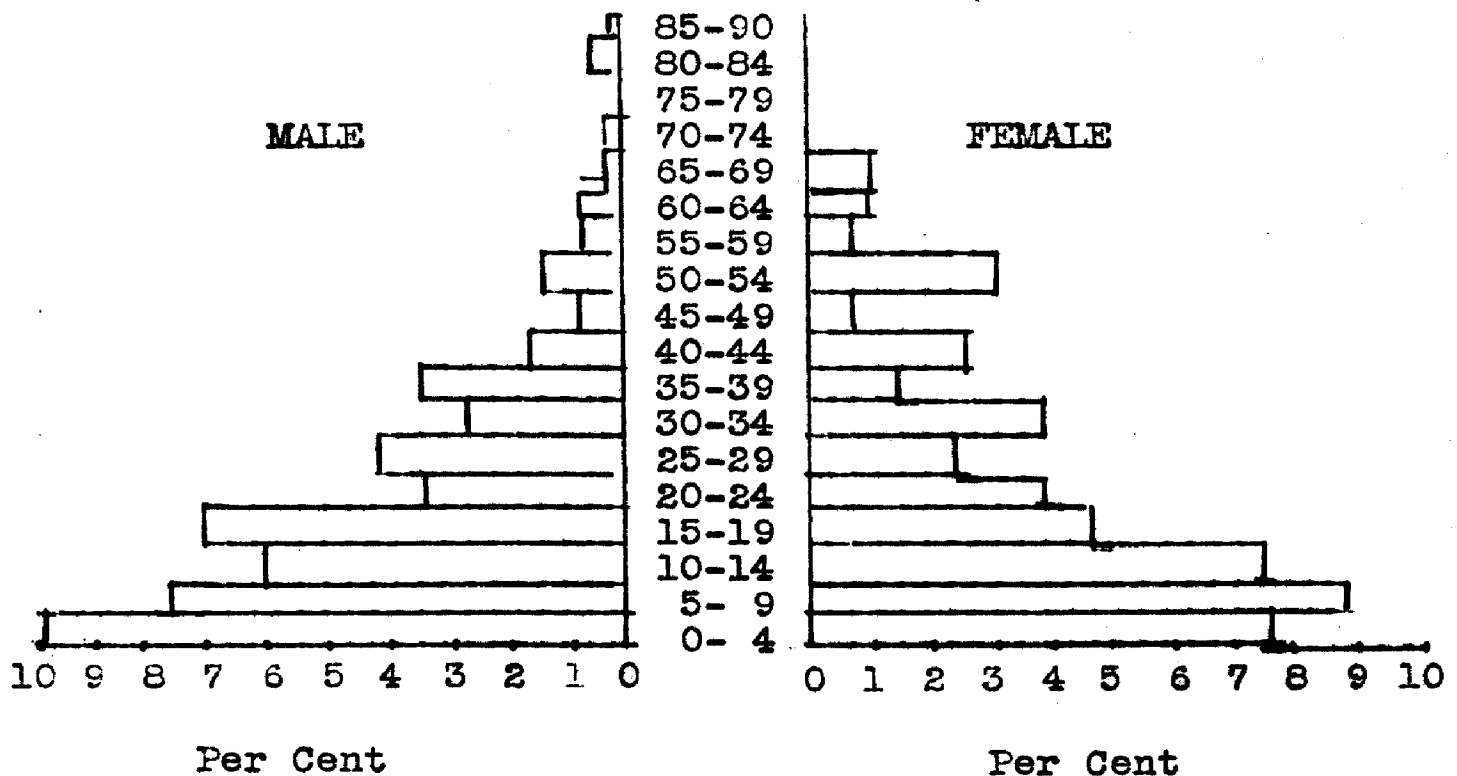


LEGEND

- HOUSE
- ◻ TWO FAMILY HOUSE
- ⊙ SCHOOL
- ⊙ CHURCH
- ⊙ PLAZA
- ⊙ CEMETERY
- ⊙ DRY GOODS STORE
- PAVED ROAD
- - - - DIRT ROAD

2. The population. The village has a population of 336 persons, with more males than females.⁸ There is a preponderance of the young; old persons are relatively few. (See Table 3). Although one may notice traces of non-Caucasian characteristics in some members of the community, (yet, for the purposes of this study, and as it seems to be defined by the community,) the population is predominately white. This coincides with the prevailing Caucasian racial pattern of Costa Rica.

Table 3.
Age and Sex Pyramid, San Juan Norte, 1953



⁸ See schedule for male heads of family, p. 2.

The present villagers are, in the majority of cases, the descendants of a few families who came from El Tejar, a village in the province of Cartago, about 80 years ago. (See map of Costa Rica, p.36). These original families were closely related through "blood" and marriage. One may expect, therefore, the population of San Juan Norte to be a very homogeneous and stable one. About 61 percent of the male and 64 percent of the female heads of families have been born in the village. Non-natives have, generally speaking, resided in the village for long periods of time.⁹

Out-migration of native-born male heads of family is minimal. Only one family whose male head was a native villager moved away from the village during the seven months of this study. Another native family moved away three years previous to the study; still another six years ago. Migration of single individuals is also infrequent.

Although houses are widely scattered there is close interaction among the villagers and the feeling of community, the "we-feeling", is very strong. This is dramatically shown in times of crises (death, for example), when the village as a whole participates in whatever ceremonies there may be. However, there is no feeling of apartness from Turrialba City, the "center" as it is called. Turrialba is regarded as a sort of extension of the village.¹⁰

⁹See questions 4 and 5 in the male head's schedule; 1-2, in the housewife's schedule.

¹⁰Villagers were asked to name the places that they had visited the previous month; practically no one mentioned Turrialba except when asked directly about it.

3. Cultural characteristic: The round of life.

Villagers get up between four and five in the morning. By six, males are already in the fields; females have already done many household chores, and a few children are already waiting in front of the school for the teacher to appear. Lunch time comes at nine, ten, or eleven, depending on when breakfast was eaten. The meal is eaten in the field or at home, depending on how close to home one is working. Coffee is always drunk between one and two in the afternoon, and supper is served between four and five.

In the afternoons, after four, if the weather permits, many of the youth of the village congregate in the athletic court for daily soccer practice.¹¹ After dark some of them move on to the village store where they remain until seven or eight, talking. By six, windows and doors of many homes are already closed. People retire between seven and nine, but not before having recited prayers.

On Sundays economic activity is minimal and most of the male population flocks to mass in Turrialba City. Since this custom of coming down to Turrialba seems to prevail in the several villages of Turrialba, Sunday is more than a day of prayer. It is a day when villagers meet relatives and friends from other villages. It is also a market day, when villagers buy groceries for the coming week. Sanjuanenos are back in the village by one in the afternoon. Many

¹¹ Since this report was written the athletic court (The Plaza), which was not communally owned, was closed by its owner. Almost immediately villagers took the necessary steps and a new Plaza has been acquired.

villagers congregate then in the soccer court, or plaza, as it is called, for soccer practice. Occasionally games are played with teams from Turrialba City or from some neighboring village.

This daily rhythm of life is conditioned by the harvesting of crops and by the weather. In the months of September, October and November every able-bodied person, old and young, male and female, picks coffee from early in the morning until late in the afternoon. This period coincides with the rainy season, and therefore every single dry moment is taken advantage of. Many times the family has to remain indoors for the whole day, even for most of the week, on account of the rain. When the villagers are not picking coffee, they are engaged in hauling the product--using their backs or pack horses--to the recibidores, or coffee assembly points.

From January or February until June or July sugar cane is harvested and is brought down to Turrialba in oxcarts.

B. The economy

1. Land tenure system

a. Ownership

San Juan Norte is a village of small proprietors. Over 50 per cent of the farms contain less than 5 manzanas.¹² The mean size of farms is 6.73 manzanas. Very few families are landless. There are three relatively large landowners who have encroached on what was once part of the village and

¹²A manzana equals 1.727 acres.

who possess land in the very midst of the village, but they are absentee landlords and are not defined as members of the community. (See Table 4). A few others have small farms in the village.

Table 4.
Distribution of Landholding in San Juan Norte, 1953

Size of Farm	Number of Owners
Less than 1 manzana	7
1 - 4	18
5 - 9	10
10 -14	3
15 -19	2
20 -29	3
30 and over	1
TOTAL.....	
	44

b. Acquisition

The original settlers were landless peasants who both tilled the soil as laborers and worked as brickmakers in El Tejar, Cartago. The senior member of this incoming group possessed, however, a few acres of land in El Tejar. Apparently they followed the migrating stream leading to the Turrialba area. They bought small farms in the present location of the village, gradually enlarging them through the acquisition of new land in present San Juan Norte, in what now is Colorado and in San Juan Sur. However, farms remained

quite small; only one of the original settlers ever reached a maximum of 200 acres of land. When the pioneers arrived in San Juan there were already a few families from Cartago living in the place. Since land became relatively scarce in San Juan Norte as it was acquired by the settlers, but was still abundant in other regions of the Turrialba area, some of the pioneers migrated from San Juan Norte and went to what are today Sitio Mata, Santa Rosa, Colorado, Pavones, La Suiza. (See map, p. 37).

Costa Rican inheritance law provides that in case of the intestate death of a male head of a family, one half of the property goes to the wife and the other half is to be divided equally among the heirs, male and female. Provided there is mutual agreement of the heirs, one of them may keep the land and pay the others in cash, the land may be sold and each heir get his share in cash, or an association of heirs may be formed. If there is not mutual agreement, land is divided into equal shares. Upon the intestate death of the mother, her property is disposed of in the same manner as that of the father. In the case of females and minors, the shares may be administered by an albacea, or executor of the will, appointed by the court.

Division of the land in San Juan Norte started with the gradual extinction of first generation sanjuanenos. Fractionalization of the land might be a more appropriate term to use. The small farms had to be distributed many times among large numbers of heirs, since families of 8-10 members were the rule rather than the exception among the original settlers.

Although such fractionalization did occur, some of the heirs resold their shares to members of their family, to other farmers native to the village or to outsiders. There was also some consolidation of farms, which, however, never did bring the size of farms in San Juan Norte proper back to their original size.

While this custom of equal inheritance has contributed to a fractionalization of the land, it by no means explains fully the present pattern of land ownership in San Juan Norte. It is sufficient to say that the largest farm in San Juan Norte had already been lost to the Bank in the early thirties and later acquired by absentee owners. Several village families have become landless in this way; some of them left, others remained in the village as landless peasants.

The division of land among the heirs caused some litigation. As a consequence land is often divided or disposed of while the aging parent or parents are still living. This has tended to reduce litigation, but has accelerated the division of land.

Since the population has increased while available land has decreased through sale to absentee owners, one might expect either complete fractionalization of the land (with everybody being a very small proprietor) or a mass of landless peasants. Actually neither extreme has occurred. Some of those who have lost their land (through mis-management or, in the case of females and minors, through the albacea

system); those who have inherited no land (either because their parents are still relatively young or because there was no land to inherit), or those who came from the outside and married into landless village families, have been able to acquire, with help from the bank, very small farms from some of the larger farmers of the village. At the time of this study, 16 farms were mortgaged to the Bank.¹³ See Table 5.

Table 5.
Patterns of Acquisition of Land in
San Juan Norte, 1953

Manner of Acquisition	Number of Farms
Inheritance	10
Inheritance and Buying	14
Buying	18
Other	<u>2</u>
TOTAL	44

c. Operation

The pattern in San Juan Norte tends to be individual operation of the land. Regardless of how small a farm may be, it is operated as a separate unit. There is no pooling of resources for economic efficiency. It is rather the members of each individual family who do the farm

¹³ Confidential information furnished by the Juntas Rurales de Credito (Banco Nacional de Costa Rica), Turrialba, C. R.

work. However, there are exceptions to this rule. In two separate cases two families were operating farms on a partnership basis, partnerships apparently resting on the kinship bonds that tied the two families in each case. In both cases the individuals concerned explicitly recognized advantages in their type of operation.

For operating their farms many farmers borrow money from the local bank. Thus, nineteen (one-third) of the village families are in debt to the bank for a total amount of colones 63,500. Fourteen of the nineteen families in debt each owe less than colones 2000.

Sharecropping, renting or leasing are not practiced in San Juan Norte proper.

d. Some consequences of the system

Sanjuanenos have to face two crucial land tenure problems, both of which will have far-reaching consequences for their way of life: (1) The custom of dividing land into equal shares will result in further fractionalization of some of the still relatively large farms (though smaller farms probably will not be further subdivided), which will mean increased inefficiency in operation. Consolidation of farms into larger units, assuming that this were possible, will probably result in displacement of some of the people into urban or semi-urban centers.¹⁴ The question will then

¹⁴ It is assumed that consolidation of farms would bring about a more efficient operation of the land from an economic viewpoint. A more efficient operation would do away with some agricultural practices. For example, some degree of mechanization would make obsolete certain practices, certain jobs would then be eliminated and consequently human labor would be displaced.

be whether such centers will be able to absorb the displaced sanjuanenos. (2) Big, absentee landowners have bought land in and around San Juan Norte. Such land is not for re-sale and therefore is probably lost to the villagers with the result that enterprising individuals of the village must buy land elsewhere. Some have acquired land in Pavones, Pacuare and San Juan Sur. (See map on p. 37 and Table 6). Others with less means sharecrop on a large hacienda adjoining the San Juan Norte area.

Table 6.
Farms Beyond San Juan Norte, 1953

Location	No. of Farms	Total Number of Manzanas
San Juan Sur	4	16
Pavones	2	25
Pacuare	1	765*
Pacayas	1	40
"50 Millas"	1	40
Adjoining Large Hacienda (Sharecropping)	3	15

*This is mostly wild mountain.

These two problems, both of which almost defy solution, will almost certainly result in increased economic hardships for the sanjuanenos.

2. Type of farming

There are approximately 275 manzanas (450 acres) of land belonging to the sixty families of the village. Table 7 shows land use in San Juan Norte.

Table 7.
Land Use in San Juan Norte, 1953

Type of Farming	Number of Manzanas	Percent of Total
Coffee	58	21
Sugar cane	45	16
Pasture or un- cultivated mountain	<u>172</u>	<u>63</u>
TOTAL	275	100

According to soil surveys conducted by the Ministry of Agriculture, the soil of San Juan Norte is of poor quality.¹⁵ Also, from an economic viewpoint, the land is used very inefficiently, which is, in part, a result of the scarcity of economic resources. This inefficient utilization is indicated by the large tracts of uncultivated land in the area.

When the founders of the village arrived, the San Juan Norte area was mostly uncultivated mountain grass land.

¹⁵ Apparently the soil is deficient in organic matter, calcium, phosphorus and nitrogen. (Letter from Mr. Alberto Torres, Chief, Department of Soil Conservation, Ministry of Agriculture, 20 May 1953). The Institute (IAIAS) has undertaken a study of the soils of San Juan Norte.

Gradually sugar cane was introduced and trapiches (small sugar mills) appeared. The first World War gave impetus to sugar cane production. With the appearance of Aragon sugar mill in Turrialba, trapiches disappeared from San Juan Norte. Production slumped after the war. (In the late 1930's, most male villagers were planting corn in new, un-opened lands in the vicinity where IAIAS now is, about two and a half hours walk from San Juan Norte. The long distance necessitated living near the fields, causing a weekly exodus of the male population). World War II revived sugar cane production and the rise in production coincided with the appearance of the POJ variety of sugar cane--which has almost completely replaced the old variety. In the last few years new varieties have made their appearance; however, the number of individuals using them and the acreage devoted to them are negligible.

Certain essential agricultural practices, such as the use of organic fertilizers and insect extermination¹⁶ are not usually followed by the farmers. Some conservation techniques are followed (to what extent and with what efficiency would be a matter for a technician in agriculture to investigate). According to the villagers, they have been following these soil conservation practices for "many years," some "all their life". The influence of outside agencies in soil conservation is small.

¹⁶ Sanjuanenos have, however, universally adopted the use of chlordane, a chemical ant exterminator.

Apparently there has been little or no change during the last two years in techniques of sugar cane production. Some new varieties are cultivated but in negligible quantities.

Coffee is a relatively new crop in the region, being present in San Juan Norte for about twenty years. The type usually cultivated is the common variety of Coffea arabica. New varieties have been introduced but they have not been fully accepted by the villagers; the acreage devoted to them is negligible. Servicio Tecnico Interamericano de Cooperacion Agricola (STICA) is the outside agency responsible for the introduction of new varieties, and word of mouth communication is responsible for their diffusion. Many villagers are aware of practices recommended by extension agents -- such as free growth of coffee rather than pruning -- however, such recommendations are usually rejected.

Sixty-three per cent of the land is "pastureland", mostly uncultivated¹⁷ and almost always a poor source of forage. No new practices appear to have been introduced in the pasture cultivation.

The number of livestock in the village possessed by villagers is rather small. Milk is scarce and its consumption low, as is the consumption of meat. During the last two years there have been no apparent changes in practices related to cattle-raising. Some cattle were vaccinated by

¹⁷ "Cultivation" here refers to the practice of seeding pastureland -- a practice followed by some farmers and peasants in Costa Rica.

IAIAS extension students, but villagers still are not in the habit of vaccinating livestock.

On the whole, farming in San Juan Norte is commercial: people depend upon the money they make from the sale of coffee and sugar cane. Bananas and certain kinds of roots are cultivated for home consumption rather than for outside markets. Many farmers plant beans within their sugar cane plots, both for home consumption and for sale in Turrialba.

3. Division of labor

The family is the basic working unit. Every member has his own task to perform in the business of making a living. There is a place for the aged, for the able-bodied male, for the female, for the child, and also for the physically or mentally handicapped.¹⁸ Not a single individual is found in the village, outside of the very young, who does not participate in one way or another to the economic activities of the community.

During the time of the coffee harvest, male and female members of the family, including the children, work in coffee-picking. Sugar cane harvest requires the labor of able-bodied males, who cut the cane and carry it down to Turrialba in small oxcarts -- the trip at times requiring five to six hours struggle over the muddy roads.

Those villagers who have to supplement their income with, or who depend entirely for their support on outside work, do

¹⁸The oldest resident of the village, aged 90, still works regularly on his farm. A man of 30, who went insane about 12 years ago, helps his father regularly in farm chores.

so ordinarily in the farms of the village. (See Table 8). However, a few have to travel several hours to and from work everyday. Some villagers work land which is very distant from the village on a near-lease basis. At times they have to walk eight hours to get to their fields. Those who work for a jornal (wage) usually have set hours for work, from six in the morning until one or two in the afternoon.

Table 8.
Work Status of Eldest Males, 1953

<u>Type of Work</u>	<u>Number of Persons</u>	<u>Percentage of Total</u>
Owner only	21	36.2
Mostly owner, also works for wages	7	12.1
Mostly wage earner, also works on own	17	29.3
Wage earner (<u>jornalero</u>)	7	12.1
Not ascertainable	<u>6</u>	<u>10.3</u>
TOTAL	58	100.0

Families often cooperate in getting the heavy work done. At times a whole family unit may postpone what they are doing and go to help a neighbor, especially in coffee-picking. Such cooperation is always paid in money rather than in kind.

4. Attitudes toward land and farming and some agricultural agencies

Land as a means and an end: Since farming in San Juan Norte is commercial, the people are very much concerned with the production and marketing of coffee and sugar cane. Villagers look at the land as a source of income, as a way to "hacer plata". They know that it is the land which will make or break them economically and are fully aware of its economic nature.

On the other hand, land is valued as an end in itself. To get at the feeling people have for the land, 30 male heads of family were asked whether they would choose the same occupation they have at present -- working the land -- if it were possible for them to have a choice. Eighteen of the thirty would stay in the same occupation for such non-economic reasons as "tranquility of farm life," "to see things grow", "I was born into it," etc. Apparently land is more than an income-getting item; it is a way of life. Only five of the thirty would remain in the same occupation for economic reasons. The four who would choose a different occupation gave various reasons for their responses, but no antipathy was shown towards agriculture. (The remaining three were undecided.)¹⁹

Empiricism of farmers: Sanjuanenos cannot be considered as blind followers of tradition. What may appear as resist-

¹⁹See question 53, male head schedule.

ance to change is often a security mechanism, an unwillingness to "gamble," as some of them say, on practices which in their consideration have not been proved better than those evolved through long years of experience. For example, there has been resistance (or "non-receptivity" if one wishes) towards the use of certain new varieties of coffee. Some farmers ask, "If these varieties (of coffee) are so good, why have not the big coffee growers of Turrialba, who can afford to experiment, taken to them?"

Although no systematic study was undertaken of the attitudes of farmers toward experimentation, from general observations and from numerous informal talks with them it appears that they are often aware of the possibilities experimentation has in farming. A very important qualification, however, is their desire for quick results.

Sources of information on agriculture and attitudes toward agricultural agencies: New agricultural information comes from a variety of sources, though most importantly from extension agents and other agricultural field agents. Some of the San Jose newspapers contain agricultural sections, but only four families out of 60 have regular access to a daily newspaper. A few more read newspapers sporadically, but for the most part, such sources of information are of no importance. One of the four family heads who had regular access to a daily paper considered the agricultural section as "impractical." There are only two radios in the village, reducing considerably the possibility of receiving information on agriculture from that source. One farmer reported that he

had at one time had access to an agricultural magazine or pamphlet.

Thirty-eight male heads of family reported on sources of information about agriculture. Table 9 summarizes this information.

Table 9.
Sources of Information in Agriculture,
San Juan Norte, 1953

<u>Source of Information</u>	<u>Number of Farmers Who Claim to Use It</u>
Newspapers	3
Agricultural Magazine	1
STICA	3 (and 1)*
IAIAS	1
No formal avenue	<u>30</u>
TOTAL	38

*Gave also IAIAS as a source.

There is no "community" image of STICA, since this agency has done little work in San Juan Norte. Among those few who have used their services there are mixed feelings: some refer to the agency's agricultural practices as "theoretical," in contrast to their own "practical" methods. They refer to "failures" of the agency in San Juan Norte and elsewhere²⁰ as proof of its "impracticality". Some dislike

²⁰STICA attempted to build a school vegetable garden in the village of PAVONES but failed completely in the attempt. This failure was mentioned by two villagers.

what they call the "quick advice" method of the agency, which, they say, is given "without a thorough investigation" of the situation. They also dislike what they call the agency's "disregard" for local farming habits. Some charge that STICA is a commercial agency. It was claimed the agency "prescribes" and at the same time "sells" the remedy. On the other hand there are some who praise the agency, and consult it whenever problems arise.²¹ These opinions, however, should not be taken as a "community" image of STICA. They are rather the personal opinions of those few villagers who have used the services of the agency. It might be more correct to assert that villagers on the whole are neutral and that there is room for STICA to work in San Juan Norte.²²

As a whole the Institute (IAIAS) is highly regarded by villagers. The contacts they have had with IAIAS are various. At one time several village leaders were brought to IAIAS for an all-day demonstration of new practices in agriculture. But by far the most intensive contact was provided by periodic visits of a group of Venezuelan ex-

²¹ No systematic study of the images of STICA, or IAIAS, was undertaken.

²² The agency officials in Turrialba explained that it is their policy to assist farmers when they request the agency's aid, but that in the case of San Juan Norte the requests for aid were infrequent. They mentioned that in contrast to San Juan Norte, the requests for aid from the village of Santa Cruz were very frequent and that the agency was working extensively in that area.

tension students who regularly visited the village about two years ago.²³ On the whole, the field work done by them is highly praised by many sanjuanenos.²⁴ The Venezuelans did not succeed in introducing all practices which they attempted to; some of their attempts ended, sooner or later, in complete failure.²⁵ However, they are identified with the success of the chlordane ant exterminator. Their personal conduct has been highly praised by many villagers. Their "sincerity" and "humility" were highly valued by many. Thus, some villagers mentioned that the students used to play soccer with them in the local plaza and that they even wrote back once they had left the country.

Other extension agents from IAIAS were also praised both from a technical and personal²⁶ viewpoint. Work done by IAIAS in areas other than agriculture, such as health and

²³The field work of these students will be dealt with in more detail in the last chapter.

²⁴One villager, whom the students visited quite often, was very resentful of them. He says that the students used to visit him on account of his daughters, rather than because they were interested in him. As proof of this he claims that once his daughters had left the village the students stopped visiting him.

²⁵The students attempted to start beekeeping with one of the local leaders. With their departure, the beehives were discontinued. The claim is made that the weather hinders beehive cultivation. New breeds of chickens were introduced, some of the chickens that developed appear to be inferior in size to the local variety. The students stressed the preparation of compost (organic fertilizer); no one makes compost in the village.

²⁶Mr. Cristobal Vega, for example, is highly regarded by them.

nutrition, has apparently added to its prestige.²⁷

It is probable (though not definitely known) that the Institute is judged more by the personal behavior of its representatives, than by their successes or failures in introducing practices.

C. The family

San Juan Norte is a village of the Fuentes and Martinez lineages. About 80 years ago four family units migrated to the present site of the village from El Tejar, a village in Cartago. These four units were in fact one big family: two of them were both Fuentes-Martinez, and the other two had a Fuentes or a Martinez as a male or female head. Gradually the remaining members of the Fuentes and Martinez families who had remained in El Tejar, both married and single, migrated to San Juan Norte.

Several other families had already settled down in the village when the Fuentes-Martinez pioneers arrived. However, descendants from only one of them remain in San Juan Norte, and these descendants, through marriage, have already joined the Fuentes-Martinez line.

Most of these original Fuentes or Martinez settlers lived in San Juan Norte and vicinity for long periods of time, but gradually moved on to other lands; others did not stay long in the village and established families of their own

²⁷ Particularly remembered by the womenfolk of the village is Miss Marta Coll. She is not remembered as a research worker, but rather as one who was "very interested in them" and who was "always willing to help." One village family remembers her with deep affection because Miss Coll took a picture of their deceased mother--the only one that they have--and gave them a copy of it.

elsewhere.

Immigration to San Juan Norte has never been heavy. About 61 percent of the male and 64 percent of the female heads of family have been born in the village; it should be expected, therefore, that there has been close inbreeding among villagers.

1. The local family.

If one considers as first generation families those in which one of the family heads came originally from El Tejar, then there is only one such family unit in San Juan Norte.²⁸ There are 17 second generation families, (offspring of first generation), 32 third generation families, and four fourth generation families. Only six out of the 60 families are not directly related to a Fuentes or a Martinez. (See Chart, p. 61).

The chart also reveals the close connection between second and third generation families. Practically all third generation families, both old members and children, are under the direct influence of still-existing second generation members.

Another item of interest is the relatively large size of families. First generation families contained eight, nine or even 10 members.²⁹ Second generation families are,

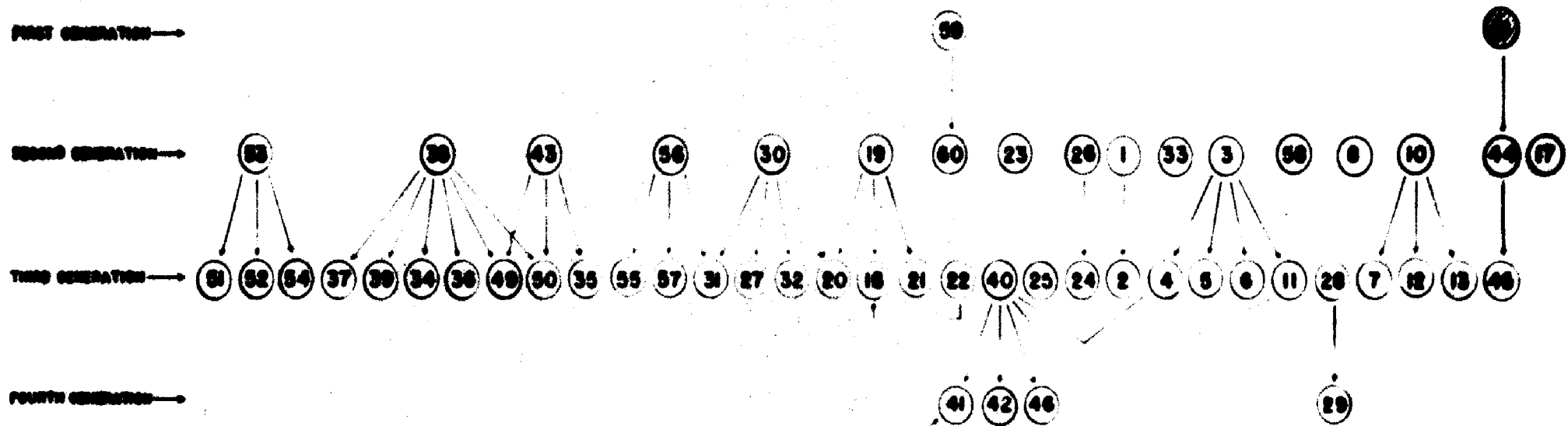
²⁸ There is another villager, a Martinez, who was born in El Tejar but came to San Juan Norte as a child. Since he was brought up in San Juan Norte he is considered a second generation Sanjuaneno in this study.

²⁹ One of the original settlers of the village, about 90, who migrated from the village many years ago but who still visits his kin in the village, claims to have fathered over 30 children by two wives.

FAMILY STRUCTURE

SAN JUAN NORTE

(1, 2, 3, 4th GENERATIONS)



LEGEND

- WHEN INSIDE THE CIRCLE REFERS TO A SPECIFIC FAMILY
- FEMALE, AT LEAST ONE OF ITS MEMBERS ORIENTED TO THE VILLAGE
- MALE, ORIENTED TO THE VILLAGE

on the whole, similar in size. Third generation family units seem to follow the same pattern; however, this is hard to prove since relative youth of the spouses might make spurious any precise generalization.

For purposes of analysis it is perhaps desirable to distinguish between two sets of family relationships in San Juan Norte, intrafamily relations (within the family unit), and interfamily relations (among the several family units).

Members of a family unit are in close physical proximity a good deal of the time. Unless the male head works away from San Juan Norte, the probabilities are that the family unit will act as a unified economic unit on the farm. Meals are eaten together in the family kitchen and prayers are said together before retiring at night.

The male head of the family unit seems to be its undisputed head³⁰ and is highly respected by both wife and children. The woman seems to be in a subservient position, though in those cases in which she is the owner of the family land, she seems to be recognized as such by the husband and has added prestige. She is also highly respected by the children. Female members of the family are never introduced formally to outsiders, in fact they often shun meeting strangers even in the presence of their husbands.

All members of a family address each other with the polite form of usted (you, rather than thou); overt signs of

³⁰No systematic study of the family was undertaken during the present investigation.

affection between the spouses are almost absent. Children are not fondled ordinarily by the parents. However, there are unmistakable indications of a high degree of affection, particularly so in mother-son relationships. Praise of and affection for the mother is noticeable and in a similar fashion mothers show affection for their sons. Many mothers give as the main reason they wanted their sons to continue working the land their desire that they remain close to them, rather than wander off in other occupational pursuits.³¹

Relationships between parents and their married sons, and these two groups comprise a sizable portion of the families in the village, are very close. One prevalent pattern is for married sons to build their houses close to those of their parents. As a consequence neighborhood cliques very often have as their center a sort of patriarchal home. As is to be expected, visiting to and from the parents' home is very frequent. The influence of parents over their married sons seems to be strong. On one occasion a villager expressed the opinion that although his mother was not ordinarily arbitrary or whimsical in her requests, he would always obey her commands, regardless of their nature.

There is an awareness among villagers of their close kinship ties, of the fact that "here everybody is a cousin to everybody else". In everyday life these ties are of a secondary nature. If a villager has to "exploit" his cousin

³¹ See schedule for the Housewife, Question 8.

in an agricultural task he will do so without any pangs of conscience; if a villager is given to gossip he will gossip about his cousin without any qualms. However, that these ties are omnipresent is attested in times of crises when the large kin group works as a unit.

Generally speaking, a Roman Catholic morality is strongly evident in family relations. Of the 60 families in the village, only one lives without the blessings of the Church and both heads of this family unit are not native to the village. The family is socially isolated; social contacts with the rest of the village hardly exist.³² This does not mean that sanjuanenos do not transgress the morals of the village. When they do, however, they either migrate from the village or risk loss of status. The percentage of illegitimacy is very small. Of eleven children born in 1951, all were legitimate; of 24 born in 1952, only one was illegitimate. Observation and questioning revealed little stigma attached to an illegitimate child.

2. Kinship lines beyond the village

As it was pointed out, several of the original settlers of San Juan Norte migrated elsewhere from the village. Two of them, related by birth or marriage to the Fuentes-Martinez line, settled in what is now the village of Sitio Mata, where their descendant now live. Contacts between sanjuanenos and their kin of Sitio Mata are few, if any. However, regular contact is maintained with kin in the

³² See Family Unit 16, Visiting Chart.

relatively distant villages of Pavones, Pacallitas and Pacuare and with kin in the neighboring villages of San Juan Sur, Colorado and Santa Rosa. There are relatives in other villages, but only sporadic contact is had with them.

For the most part such contacts occur in Turrialba City -- a central meeting place for the region. Few sanjuanenos travel to visit kin in other villages, especially if the village is any distance away. Letter writing occurs, though infrequently. Since women do little traveling even to Turrialba City, their contacts with relatives are more sporadic than that of their husbands.

3. Courtship and marriage

About one fourth of the male and female heads of family born in the village have married non-residents, so that there is no pattern of exogamy or endogamy. A pattern of endogamy would be hard to develop in present-day San Juan Norte, since there are more males than females. The sex ratio is 108.7.³³

The usual age of marriage is 25 or over for the male and 20 or over for the female. No males marry before 20 and very few before 25; women almost never marry before 20. (See Table 10).

Girls are carefully chaperoned, which makes informal courtship difficult. Preliminary to engagement there may be a short period of courting through letters or in meetings in

³³ There are 42 males aged 15-40, and only 17 females of the same age group.

Table 10
Age and Marital Status, San Juan Norte, 1953

Age	Males		Females	
	Single	Married	Single	Married
15-19	24	0	12	3
20-24	11	1	2	11
25-29	4	10	1	6
30-34	<u>2</u>	<u>7</u>	<u>1</u>	<u>12</u>
TOTAL	41	18	16	32

Turrialba City. Once a boy is accepted by a girl, he will, if he is serious, talk to her father. This is tantamount to actual marriage since few would dare not make good a promise. A formal courting period follows, which may last from three to six months.

Weddings constitute a memorable occasion for villagers. The couple are married by the priest in Turrialba City early in the morning. (Sometimes the couple go to Turrialba City on the eve of the wedding, the groom and the bride each chaperoned by a godfather and a godmother respectively.) A light breakfast follows the wedding and then the couple and the many villagers who have come down to the wedding return to the village on horseback, amid cries and shouts of laughter. A day of feasting follows in the village, with plenty to eat -- special native dishes are prepared -- and to drink. This is followed by dancing, which lasts until late in the evening. There is no honeymooning beyond the village. The couple usually settle down in a house which

has previously been built near the home of the groom's parents.³⁴

D. Religion

Costa Rica as a whole is a strong Roman Catholic nation. To understand the religious life of San Juan Norte one must delve into the cultural background of the original settlers, and into the history of the village.

The highest national religious symbol in Costa Rica is La Virgen de los Angeles who is enshrined in the Basilica (Church Cathedral) at Cartago City. It is perhaps no exaggeration to say that the Basilica is visited every single day of the year by hundreds of people, many of them pilgrims from the various regions of the Republic.

The original settlers of San Juan Norte came from the village of El Tejar, which is located about one hour on foot from Cartago City. Sanjuanenos are the inheritors, therefore, of the strong religious tradition, both from the general culture of Costa Rica and specifically from the region around the Basilica. That they consider spiritual needs of primary concern is attested by the fact that the village had a small church when Turrialba City, in its present location, was non-existent and has had a church ever since. A home for the visiting priest was constructed about

³⁴ There is reason to believe that the traditional ceremony is changing. The investigator was told that at a recent wedding the best man, himself a young villager, refused to ride back to the village on horseback and instead chartered a bus for the occasion. (The investigator did not observe, though, any village wedding.)

forty years ago.

Although Protestant sects have attempted to gain converts, especially in the late forties, villagers have remained completely Roman Catholic.

1. Religious structure

At the top of the local religious hierarchy stands the priest, who resides in Turrialba. He is most influential in matters concerning religion, but can often wield an immense amount of power in other areas of village life. Next in line one finds the office of mayordomo, and the Junta Edificadora, a board composed of four members. The office of mayordomo and the Junta complement each other. It is the task of the former to look after all church details which have to do with "ceremony," such as preparation for the arrival of the priest and the care of images. The Junta, on the other hand, acts as a caretaker for all church property in the village. These are honorific offices, theoretically filled through popular election, with the consent of the priest. In practice, however, they are almost life-long positions. Thus the present mayordomo has been holding office for the last 25 years and the secretary of the Junta for the last 20 years.

There are two religious organizations in the village independent of each other and of the Junta or the mayordomo: the Juventud Obrera Catolica (Catholic Young Workers Group) and the Apostolado del Sagrado Corazon (Apostleship of the Sacred Heart). The JOC is a labor organization tied to a

national Catholic labor movement through the local Turrialba Chapter. It aims at providing moral guidance and entertainment for young working people, but has little influence in village life. The Apostolado del Sagrado Corazon, described in detail in the next section, is a village-wide apostleship devoted to the image of the Sacred Heart of Jesus.

2. Religion and daily life

Most of the living rooms in the village contain a rustic altar, with images of saints and occasionally a candle and some flowers. It is in this room that all members of the family who are present usually congregate in the evening for the recital of the daily rosary. The rosary is usually recited by family elders, though occasionally adolescents take the leading part. Walking around the village at night one hears the Padrenuestros and Avemarias from behind the closed doors of the homes. Reciting the rosary is not necessarily universal in the village, nor is there "spiritual ecstasy" among the participants. There are some families who do not recite it at all, although they say prayers before retiring, and some who recite it every other day. Children take a less serious view of the custom. It is not uncommon to find women in church, especially on Friday afternoons reciting the rosary.

For the purposes of the Apostleship of the Sacred Heart, the village is divided into three neighborhoods, through which the image of the Sacred Heart of Jesus is circulated. The neighborhood division exists only for the Apostleship and bears no relation to the ecological distribution of

families. The family receiving the Image keeps it in its possession for 24 hours. Candles are lighted, prayers are recited and usually a coin is deposited in the urn before it is sent on to the next family on the list. The money collected goes to the local church, where it is often used for payment for masses. The Apostleship has been in the village for a long time, a 50 year old resident stating that it was in existence when he was a child. It is believed that the arrival of the image will bring blessings and luck to the home.

Another index of the religiosity of villagers is their constant reference to religious symbols in daily conversation. "Que Dios se lo pague," "Que vaya con Dios," "Si Dios quiere," "El Senor lo bendiga," are expressions of daily use. The "will" of God is always on people's lips when they make categorical statements about future events.

Villagers are in the habit of making petitions to the saints -- promesas, as they are called -- in exchange for prayers, visits to church, the wearing of special dresses or the lighting of candles. At times some of the villagers are in "debt" to the saint and it is believed that if one dies being in debt one's soul will not be in peace. Because of this some women said they were reluctant to make promesas, though the majority of villagers are in the habit of making them. It is hard to find a family in which both spouses have failed to visit La Basilica, in Cartago City, on an errand of promesa. The devotion which villagers have for La Virgen de los Angeles at the Basilica is indicated by the

flood of petitions to her. Repayment of the promesa may involve strenuous effort on the part of the parties concerned. Many a family has walked from the village to La Basilica, a distance of seven to eight hours; others may walk on their knees from the gate of the Church to its main entrance.

On Sundays practically all the able-bodied male population -- old, middle-aged and young -- descend from the mountain to attend mass in Turrialba City. The meaning the mass has for sanjuanenos is exemplified by the behavior of the village's oldest resident, a man of 90, who comes down to Turrialba on horseback every Sunday for the 7 o'clock mass.

3. Religion and recreation

Religion and recreation are intimately tied together; to sanjuanenos, "holidays" are really "holy days." The major festivals in the village are Holy Week, the festival of the patron saint, the Feast of Corpus Christi and the arrival of the priest, who visits San Juan Norte for a weekend every two or three months.

Days before the arrival of the priest the women begin cleaning the church, polishing the brass and the plates and cleaning the parochial home. The men mow the lawn on the church grounds and clean the yard. The priest's itinerary for the two days is made known well in advance so that the people will be able to plan accordingly. Word is passed around to remind the people that it is desirable to have the greatest number possible at confession.

Whatever errands the people may have in Turrialba are taken care of on the Saturday preceding the visit so that they may attend the services and see the priest. By the time the priest arrives, the villagers have stocked up on fireworks, the cantina in the galeron³⁵ is well supplied with soft drinks, liquor³⁶ and sweet cakes and the usual raffle has been planned.

The priest arrives on a Saturday and that evening a rosary is recited in the church. A sermon follows the rosary and confessions are heard afterwards.

On Sunday morning, people start congregating in front of the church. Confession is heard from 5:30 until the 7 o'clock mass at which time the church is overflowing with people. Everybody wears his best clothing, including shoes if available. Outside the church, fireworks go off repeatedly, often during sacred moments of the mass. After mass there follows a series of high-speed meetings: the priest sees the children for catechism, confers with members of the Juventud Obrera, with members of the Apostolado, with the Junta Edificadora and with any others who want to see him. Early in the afternoon a game of soccer takes place, usually

³⁵ Galeron literally means a gallery. In this particular case it is a sort of shanty which houses a canteen where liquor and soft drinks are sold on days of village festivals. It also houses a kitchen, a dining room and a large open room where raffles are held. Since most of the village festivals are religious in nature, this galeron is built on church grounds.

³⁶ "Liquor" here refers to commercial rum. Actually, very little liquor is consumed by sanjuanenos and drunkenness is not common.

with a team from another village; church services are conducted after the game. The priest may stay over Sunday night, or leave late in the afternoon.

All day Sunday the church grounds are the scene of intense social activity. When no services are being held there is constant promenading around the church; groups of people get together for informal conversations and the cantina is always full.

Holy Week, specially Holy Thursday and Good Friday, is very impressive. Practically all economic activity in the village is suspended; only the barest necessities are attended to. There are peregrinations of villagers to the all-day religious services at Turrialba City. All transportation, both in the village and in the city, is entirely on foot, as the city people would not consider driving cars nor would villagers ride horses during Holy Week* Many former villagers return to the village to visit their kin on this occasion, so that these are two days of family reunion. Although no meat is eaten on either of these two days, yet there is the biggest display of food. Big meals, which resemble a (peasant) banquet, are served; special Easter dishes which involve native products are prepared.

The Feast of Corpus Christi constitutes another of the big events in the village. Since it cannot be celebrated on the church calendar date corresponding to it (all the priests are busy in Turrialba), it is celebrated on one of the latter Sundays in June. To all the activity associated with the arrival of the priest are added many new features:

*Holy Thursday and Good Friday.

Two days before the event, villagers start erecting four big wooden platforms which will serve as altars for the Corpus celebration. Formerly these altars were built in the village plaza; at present they are built on the church grounds. Each altar is built by a group of families, the same groups having built altars for many years.

During the ceremonies a big procession, the priest in the middle, starts from the church. Stops are made at each of the four altars and prayers are said. The procession then returns to the church.

The feast of San Isidro Labrador, though falling in May according to the church calendar, is celebrated simultaneously with the Feast of Corpus. A new feature, San Isidro, is incorporated into the traditional Corpus celebration. Since San Isidro is the patron saint for all peasants everywhere, on Sunday morning before mass (or on Monday morning if the priest spends a long week-end in the village), villagers bring to the church grounds an immense number of oxen, cows, calves, bulls, horses, ox carts to be blessed by the priest. Each animal is blessed individually, after payment of a fee. (See next page for the program of the Corpus Christi - San Isidro celebration).

The festival of San Juan Evangelista, the patron saint of the village, is a three-day celebration following Christmas. While the sequence of activities and the various ceremonies and entertainments do not widely differ from those of the other feast days, the festival of San Juan Evangelista is in

a sense the villagers' own day. In this respect it is one of the most important festivals of the year.

One cannot separate San Juan Norte from Turrialba City in the matter of recreation. At many of the village religious festivals visitors from Turrialba are present. In all the big religious-social festivals of Turrialba sizable groups of villagers are present. Sanjuanenos actively partake in processions. It is perhaps no exaggeration to say that Turrialba's religious festivals are also San Juan Norte's religious festivals. Many villagers also attend religious festivals in the town of Juan Vinas, located approximately the same distance from the village as Turrialba City.

4. Religion and the crises of life

All societies have special ceremonies connected with critical periods in the life cycle of a person. It may be a special ritual connected with child birth, with the passage, in a social sense, from childhood to adolescence, with marriage, with death or with some other period which the society defines as critical. In San Juan Norte it is death, perhaps, which commands most attention from the community.

Birth: Birth goes practically unnoticed in the village, except for the close kin of the newborn. It occurs in the house, under the assistance of a midwife from the village. The mother usually remains in bed for three days. A godfather or godmother, who sponsors the baptism, is selected on the basis of friendship or close kin ties and the child is taken to church in Turrialba to be baptized during the

first few weeks after birth. Usually the same person is godparent to most of the children in the same family. Immediately after baptism the godparent is invited to the home of his compadres for a dinner of roast chicken. The godparent in turn brings a present for his ahijado, or godchild. Only the immediate kin of the newborn and the godparent are present at this meal.

First communion and confirmation: First communion may occur between the ages of seven and ten. The child is usually instructed in the fundamentals of the Catholic faith by girls from the village, who teach the catechism every Sunday. Under the supervision of nuns who reside in Turrialba. Groups of children, irrespective of age, are prepared and examined by the priest and then, in one of his visits to the village, they make their first communion. They are dressed in white, girls with a white veil and boys with a white ribbon on their arm.

There is no set day for Confirmation. Children are confirmed in the village, when the bishop arrives every seven years, or in Turrialba, during one of the bishop's annual visits to that city. Confirmation usually occurs between ages seven and ten.

Marriage: The reader is referred to pages 65, 66 and 67.

Death: When a person is on his death-bed he is visited by most of the villagers, who want to see him before he dies. There is a maximum of village solidarity on these occasions

and the death is always followed by a big display of emotion. There is immediate wailing, which is followed by soft weeping and verbal manifestations of lament. Church bells toll immediately after death, spreading the news throughout the village. Almost immediately the house is flooded with people. Death seems to be an all-community affair. Every one who arrives comes to offer his services or his money to the immediate kin of the deceased, who usually accept at least some of these offers. Some villagers go to Turrialba for the coffin and to buy bread and cakes for the wake. Others will dig the grave in the village's cemetery and still others will help in the preparation of the corpse. Some women take care of the kitchen. There is an earnest desire among all villagers to contribute in some way to the mitigation of the suffering.

If death has been unexpected, the face of the corpse is either exposed so that visitors may have a last look or is covered with a thin veil which may be lifted to see the face. There is an all-night vigil of the corpse. Periodic prayers are recited. The house remains full of people until late hours in the night when people start filing away. However, several persons always remain for the all-night vigil. Coffee and sweet bread are served to guests.

On the day following the death, the day of burial, the corpse is brought in a coffin to the village church where prayers are said by some villager. The procession leaves then for the village cemetery. Before the coffin is lowered

some people may request a last look at the corpse. No prayers are said when the coffin is lowered into the grave. Many of the villagers take turns at filling the grave with earth.

For the next nine evenings after the burial villagers congregate in the house of the deceased for a daily recital of the rosary. After the rosary guests are served coffee and sweet bread. On the ninth day there is an all-day rosary. Elaborate preparation for this event have been going on during the days preceeding it. Special dishes are prepared in homes other than that of the deceased. The whole village is invited and villagers begin to congregate in the house in the morning. Everyone who comes is fed. The food is of the best: special native dishes, chicken, soup, coffee and cake and tortillas. There is almost continuous praying until the evening. Wakes are periods of intense social interaction, besides being periods of mourning. A feeling of subdued gaiety is present; people laugh, tell jokes, talk about farming and other daily affairs and in this way the suffering of the immediate kin of the dead is mitigated.

The village is usually in mourning for a month after a death and no festivals are held during this period. For five months following the death, a rosary is recited in the home of the deceased on the date of the death. On the sixth month date an all-day rosary is held. No rosaries are held on the five months which follow. Then, on the anniversary an all-day rosary is again held. This completes the mandatory cycle of prayers, though for several years to come masses will be said in Turrialba for the "peace" of the

deceased.

The death of an unbaptized child calls forth a different kind of ritual. It is believed that a dead child is an angel, that for it is "the Kingdom of Heaven". Consequently, it is thought that there is no need for deep mourning or prayers but for rejoicing. In many cases there is an all-night wake with music, and games are often played.³⁷

5. Religion and a meaning of life

The sanjuaneno strikes the observer as a person imbued with a strong religious fervor. Religion gives the villager a feeling of immortality: one villager commented that his economic situation improved markedly after the death of his mother and he attributed such a change to her help. To him she was still living, although in a different world, and "he could always feel" her presence. In common with Roman Catholic belief everywhere, there is a strong belief in an afterlife, a feeling that has not been dented by outside currents.

Not only does religion provide support in times of crisis, such as death, but it also helps relieve the frustrating effect which failure to attain certain goals might have for the individual. Indirectly religion gives stability to the socio-cultural structure. Thus, many villagers explain the failure to improve their economic situation, or even the failure to attain any other desired goals, with such

³⁷ This information was furnished by two villagers. It has not been corroborated by empirical observation.

assertions as: "Such was not the will of God," "De las cosas de Dios nadie se escapa." As a consequence, neither are goals questioned nor new means devised to cope with the new situations. The result is a more stable society.³⁸

The death of a child, which in many societies constitutes a tragic event, is less serious in San Juan Norte. It is believed that the dead child, the "angel," will intercede for the family in heaven. In a certain way, then, death -- although still a hard aching experience for villagers -- becomes less shocking through the strong religious fervor and the attendant belief in an afterlife.

Although villagers have, generally speaking, a Roman Catholic orientation toward life, some of them follow many practices which to an orthodox Catholic might appear as superstitions and therefore incompatible with church doctrine. In this respect their mythology is little different from that of similar communities in Costa Rica or, for that matter, in similar regions of Latin America. Such practices include the belief that the dead may appear at night (though no spiritualism was evident in the village), the belief in sorcery, in the evil-eye, and so on. No systematic study of beliefs has been made in the present investigation.

E. Education

1. The school and the teacher

If education is defined as the process by which both the cultural heritage and new ideas are imparted, then the

³⁸R. K. Merton, "Social Structure and Anomie." American Sociological Review, 3, pp. 672-82.

school in San Juan Norte has played a minor role in educating the young. Children usually spend from one to three years in school, learning the rudiments of reading, writing and arithmetic, and that about ends their formal education. However, when one compares the situation in San Juan Norte (for that matter in all of Costa Rica) with the situation which prevails in many countries throughout Latin America, one realizes that the school has been fundamental in developing the particular type of culture of the village. San Juan Norte has had a school for some 40 years, starting when Turrialba City was still a small village. This accounts, therefore, for the fact that 82 percent of villagers of age six and up have attended or are attending school.

A rural teacher is at the head of the school. To assist him in his task there are two organizations in the village: The Junta de Educacion and the Patronato Escolar.³⁹ The Junta has five members and is nominated by the Municipality of Turrialba City from a list of names submitted by the teacher. It acts as a caretaker of school property and is also charged with responsibility for seeing that all children of school age attend school. Presumably it also looks after the conduct of the teacher and reports accordingly to the school supervisors. The Patronato Escolar consists of nine members, elected freely by villagers in a general town assembly. They are charged with the responsibility for

³⁹ Carlos Jinesta, Guia de Juntas de Educacion Y de Tesorerias Escolares., San Jose, C. R.: Imprenta Lehmann, 1927, passim. Some information was also provided by the local teacher.

looking after such needs as lunch facilities, clothing and school material.

There is high regard among villagers for learning; the teacher, as a "learned" man, is highly respected. For most villagers⁴⁰ it would not matter much whether the village had a male or a female teacher, so long as he taught in the traditional sense, that is, reading and writing. Ideally they would want a teacher who "taught well" and "took good care of the children." Preferably he should be religious and set a moral example for the community to follow. For all practical purpose there was no conception of the teacher as a leader in community affairs. Since there was interest in the IAIAS in modifying this traditional conception of the teacher, it was thought wise to explore the possibilities for modifying the villagers' image of the teacher in the traditional role as an instructor of reading and writing. The investigation of the peoples' attitudes toward the teacher as an agent of change in agriculture, health and nutrition reveal that most of them think the teacher has knowledge about health and nutrition and apparently they would be willing to follow his advice in these areas. However, they felt that the teacher was not qualified to impart knowledge on agriculture. It is, of course, problematical whether villagers would put into practice their apparent willingness to follow advice in health and nutrition.

⁴⁰ See page 23 and questions 49, 50, 62, 63, 68 and 69 in the Schedule for male heads of family, and questions 12, 13, 25, 26, 34, 35, (42,43), 52, 55, (56, 57, 58), 59 in the Schedule for the Housewife.

Potentialities do exist for modifying the teacher's role. Assuming that from the community's point of view, his role was modified, what difficulties would the teacher face in the assumption of his new duties? In the village of San Juan Norte the teacher is tied down with traditional school matters. He gets up at 5:30 in the morning Monday through Saturday and is not through with the children until after 3:30 in the afternoon. Taking into consideration the fact that families retire rather early in the evening, the teacher no doubt faces a difficult task in doing community work. Add to this the fact that the teacher is offered little remuneration even for teaching -- all he gets for his outside duties in the community is self-satisfaction. Whether this situation is stable enough to permit use of the teacher as an effective community worker is debatable.⁴¹

2. The home

If school does not directly prepare the child for his lifework, the home does. Since the family, besides its other functions, acts as an economic unit, children start training for work very early in life. When they are very small they do household chores such as driving the chickens from the home, getting water from the well or brook, buying milk from the neighbors or bringing lunches to their kin who

⁴¹Of the 15 teachers connected with the "experiment" who were interviewed recently by the Department, all expressed dissatisfaction with their "excess" work. Twelve expressed dissatisfaction with their living conditions, nine with their salary and 5 with their food. (From an analysis of a schedule for the teacher, IAIAS, 1952, Mr. Narciso Arce and Mr. Edwin Murillo.)

work in the field. Later they feed the cows, and bring them to be milked. During the coffee season they help in coffee-picking, in searching for ant nests which may be damaging the crop and in other minor details. Later they may take oxen into town and back; still later they may drive ox carts into town, first as helpers and finally as full-grown boyeros. The child gets all this training informally from his kin, and by 17 a boy is already able to do all the main chores of the farm. In the village, for example, there is a boy of 16 who tends, with the aid of his 66-year-old adopted mother, a 12-acre farm.

There is no conscious process of educating the young into these tasks. The child is assigned the task and there is no alternative for him other than to conform. However, the child is given encouragement by his parents when he shows willingness to do what is assigned to him. Many a villager takes pride in the fact that his son "wants to work." It is not uncommon to see a 4-year-old boy using a big, 24-inch knife, without any fear being shown by his parents.

Children in San Juan Norte are unusually polite and affable. They almost always shake hands and when addressing a grownup always follow "yes" or "no", with "sir". Training in these habits of courtesy starts almost in infancy. It is not as easy to see the relationship between child upbringing and the affability shown by the young. There seems to be no set pattern; there are homes in which both parents display such affection for the children that they never use

physical punishment. On the other hand, there are homes in which violent physical punishment has been reported.

3. The church

The place of the church in education is seen most clearly in the weekly catechism attended by all village children from the age of six until confirmation. Here they are taught the basic precepts of their religion, preparing themselves for the examination which will indicate to the priest their fitness to be confirmed. In addition all children, including infants, regularly hear mass during the priest's periodic visits to the village. Most male children old enough to travel attend Sunday mass at Turrialba City with their fathers and regularly attend the religious festivals in that city.

4. Other sources of education

The playgroup: Informal games occupy much of the leisure time of the village children. Many of them are very obviously reflections of adult activity. One of these is the oxen game, in which two children take the part of the oxen and one the part of the driver. The players imitate the gestures and commands of the adult drivers, carrying the realism so far that the game is often played in the rain, with canvas cloths in imitation of the protection worn by their parents.

Soccer: Training in soccer starts early in the children's lives. On Sundays, before catechism, groups of children get together in front of the church for a game of

soccer. They later go to the plaza, where there is a small soccer court for children.

Soccer is Costa Rica's national game, being followed almost everywhere with great enthusiasm. San Juan Norte is no exception. Every afternoon after work, provided that it is not raining, most of the children, the young people and some of the middle-aged of the village congregate in the soccer plaza for practice. It is not uncommon to see a 50-year old man playing side by side with a 15 or 20-year old boy. Sometimes these practice games last until early evening, when it is usually quite foggy. The game is not called off until darkness falls on the village and players can no longer see the ball. There are no age divisions in these practice sessions. Everyone who wants to practice can get into the game. There are three regular teams in San Juan Norte: the "Singles," the "Married" and the "Children." "Singles" and "Married" often play against each other, particularly on Sundays if no outside team is playing. Occasionally the local team is invited to play in Turrialba City or in some of the adjoining villages; in a similar fashion teams from Turrialba City and other villages come to play in San Juan Norte.

F. Government

The three branches of government in Costa Rica -- the executive, legislative, and judicial -- are expressed in the President of the Republic, the Congress and the Supreme Court. The first two are elected by popular vote; the latter is appointed by Congress.

At the provincial (state)⁴² level the national executive is represented by a governor, who is his political appointee. There is no legislative assembly for the province. The judicial branch is represented by a juzgado (court), divided into penal, civil and labor sections, and by three alcaldias (courts of inferior grade). Criminal cases are tried in either the Penal Juzgado or in one of the three alcaldias, depending upon the seriousness of the offense.

At the canton (county) level the governor is represented by a political chief, who is his appointee. The political chief is the highest civil and political figure in the canton. The municipalidad is the legislative chamber for the canton. It is completely autonomous from the executive branch and is elected by popular vote. Its ordinances are enforced by the Political Chief, if the municipalidad so requests or by whomever it designates as its executor.

There is a minimum amount of political control in the village. The highest political figure in the village is the auxiliary police agent, who is himself a villager. His chief duty is to "look after orderliness in the community and the safety of its inhabitants." However, he does not have full police powers. He cannot make an arrest unless the chief police agent of Turrialba City has duly authorized him to do so. Whenever something of a serious nature occurs

⁴²"Provinces" cannot usually be equated with "states," nor can "cantons" be equated with "counties." However, there is a rough correspondence between the province-canton organization and the state-county organization.

Branches of Government

	<u>Executive</u>	<u>Legislative</u>	<u>Judicial</u>
Nation	President	Congress	Supreme Court
Province	Governor		<u>Juzgado</u> (Penal, Civil, Labor) <u>Alcaldia</u> (1,2,3)
Canton	Political Chief	<u>Municipalidad</u>	<u>Alcaldia</u>
District	Chief Police Agent		
Village	Auxiliary Police Agent	<u>Junta Pro- gresista</u>	

he has to report the case to Turrialba and obtain specific authorization for handling it. However, in case of such emergencies as violent death or larceny, he is authorized to arrest.

The auxiliary police agent arbitrates the small litigations that may arise between neighbors. He also notifies villagers about taxes levied for the maintenance of dirt roads.

The auxiliary police agency in San Juan Norte is not a full-time job. There is little litigation, fights and drunkenness are almost unknown and cases of larceny are equally rare. Pay for the job is relatively small. The police agent has authority to appoint two jueces de paz (justices of the peace) and several commissioners to help him in his task. These are honorific positions which carry no salary. It is

only in cases of emergency -- for example, when los turnos, a sort of mardi-gras, are celebrated -- that the auxiliary agent may commission people to help him preserve order in the village. Whomever he commissions has to obey, under penalty of jail; however, he usually commissions the persons with most prestige in the village, all of whom are related to him by marriage, and who always serve willingly. Los turnos are celebrated twice a year: once in May, to collect funds for the village church, and once in November, to collect funds for the local school. During los turnos all villagers and many friends and relatives from adjoining villages congregate around the church for one to two day celebration. There is some drinking and sometimes fights occur.

Another political unit in the village is the Junta Progresista, the local representative of the Municipality of Turrialba. The Junta looks after problems of village public works, such as roads and the water system. The Junta was only recently created in San Juan Norte; at the time of this study it had been in existence four months.

G. Stratification

In an objective sense there is always social inequality in all known societies. Some individuals receive a higher income than others; some have occupations which carry more prestige than others; still others may be in position to control the destiny of others.

In a subjective sense the problem is more difficult. Given a difference in income, if the recipients of those incomes do not define the situation as one of social inequality, will there be social inequality? Given a difference in wealth, or a difference in power, if the situation is not perceived by the parties involved as one of social inequality, will there be social inequality? Answers to these questions would take us into the realms of philosophy, What is Reality?, and therefore beyond the purpose of this report.

Social inequality, which implies a hierarchy of positions, is a fundamental assumption in most studies of social stratification. Logical questions are what is social class (or status)? What are its attributes? Many investigators dispose of the problem by defining class in an operational sense -- a "class" is that stratum which has a certain characteristic or characteristics.⁴³ Thus one might divide the society into income groups or income strata, or into the stratum of blondes and the stratum of brunettes. A congerie of characteristics might be selected instead as the distinguishing mark. In this case class might be defined as those in a certain stratum who have characteristics A, B and C, but not D, E or F. A modification of this procedure would be to assign values to variables A, B or C and to rate people according to whether they possessed this

⁴³ Cf. Milton M. Gordon, "Social Class in American Sociology," American Journal of Sociology, 55, Number 3.

much or that much of the variable. Indices might then be prepared and people rated on the basis of their score in these indices. Warner's school follows a similar procedure.

Still other investigators ask certain members of society to act as judges, to rate themselves and other members of the community on the basis of some variable, however loose or undefined this variable may be, such as importancia.⁴⁴ It is assumed in all these cases that there are classes and that these classes follow a hierarchical order. Other investigators use the sociometric method: they investigate who visits whom, etc., and try to discover whether there are groups which are more in interaction with each other.⁴⁵ It is presumed that those who are more in contact with each other belong to the same status.

In the present study some use, however slight, has been made of all the procedures enumerated above. An attempt has been made to investigate stratification on the basis of occupation and wealth, power and social honor or prestige.

1. Occupation and wealth

The present study shows that there is hierarchical stratification in San Juan Norte: objectively on the basis of possession of land and occupation, and subjectively by definition of the situation as one of hierarchy by the people.

⁴⁴Cf. Edgar A. Schuler, "Social and Economic Status in a Louisiana Hills Community," *Rural Sociology*, 5, pp. 69-87.

⁴⁵See C. P. Loomis and A. Beegle, op. cit., pp. 361ff.

Almost everyone in the village owns a farm, however small it may be. Occupation depends on the size of the farm owned and the means available to cultivate it or on lack of land. Villagers were classified on the basis of ownership-occupation into four classes: (a) Those who supported themselves entirely from labor on their own farm; (b) those who supported themselves mainly from labor on their own farms, but who supplemented their income with wage labor beyond their farms; (c) those who supported themselves mainly from wages, but who supplemented their income by working on their own small farm; (d) those who supported themselves entirely from wages. Table 8, p. 53 shows the size of the various groups.

Subjectively there is a feeling among villagers that owning land is higher in the economic scale than jornalear or wage-earning. To be a full-fledged jornalero is one of the things dreaded by those who are able to depend on their own land. Conversely, to leave the jornal and become an owner is one of the desires of almost all wage workers.

2. Power (leadership)

In strictly local affairs the village has two men (#1, 34, see Table 11) who wield a considerable amount of power, if by power is meant the determination or influencing of other's behavior in accordance with one's own wishes.⁴⁶ A third person (#22) completes a closely knit group. No major decision is taken concerning the village unless these

⁴⁶Cf. Kingsley Davis, "A Conceptual Analysis of Stratification," American Sociological Review, 7, pp. 309-21.

three have consulted among each other, and, most probably, come to an agreement. These three men also have close social relationships with men who also wield a considerable amount of power in the village,⁴⁷ although to a lesser extent than they, and therefore are able to influence village public opinion. The three men at the top of the power structure stand out sharply from the rest. It would be difficult to classify the rest of the population on the basis of power unless it would be by arbitrary classes. It might be more correct to speak of this second stratum as exhibiting a continuum of power, from the most powerful to the "powerless".

Table 11
Leadership Structure of San Juan Norte, 1953
(Number of Choices Had by Specific Male Heads of Family)

Male Head of Family*	Leadership Choices**
1	34
10	16
12	1
16	2
19	9
22	21
25	16
26	1
29	1
30	5
34	24
35	1
50	1
51	1
52	1
55	3

*Village male heads of family.

**Times the specific person was chosen by the villagers to represent them in a hypothetical commission (see question 4, Schedule for male heads of family; Appendix)

***Three unmarried villagers received a few choices; 4 non-villagers also received a few choices.

⁴⁷See Table 11, and Visiting Chart.

3. Social class stratification

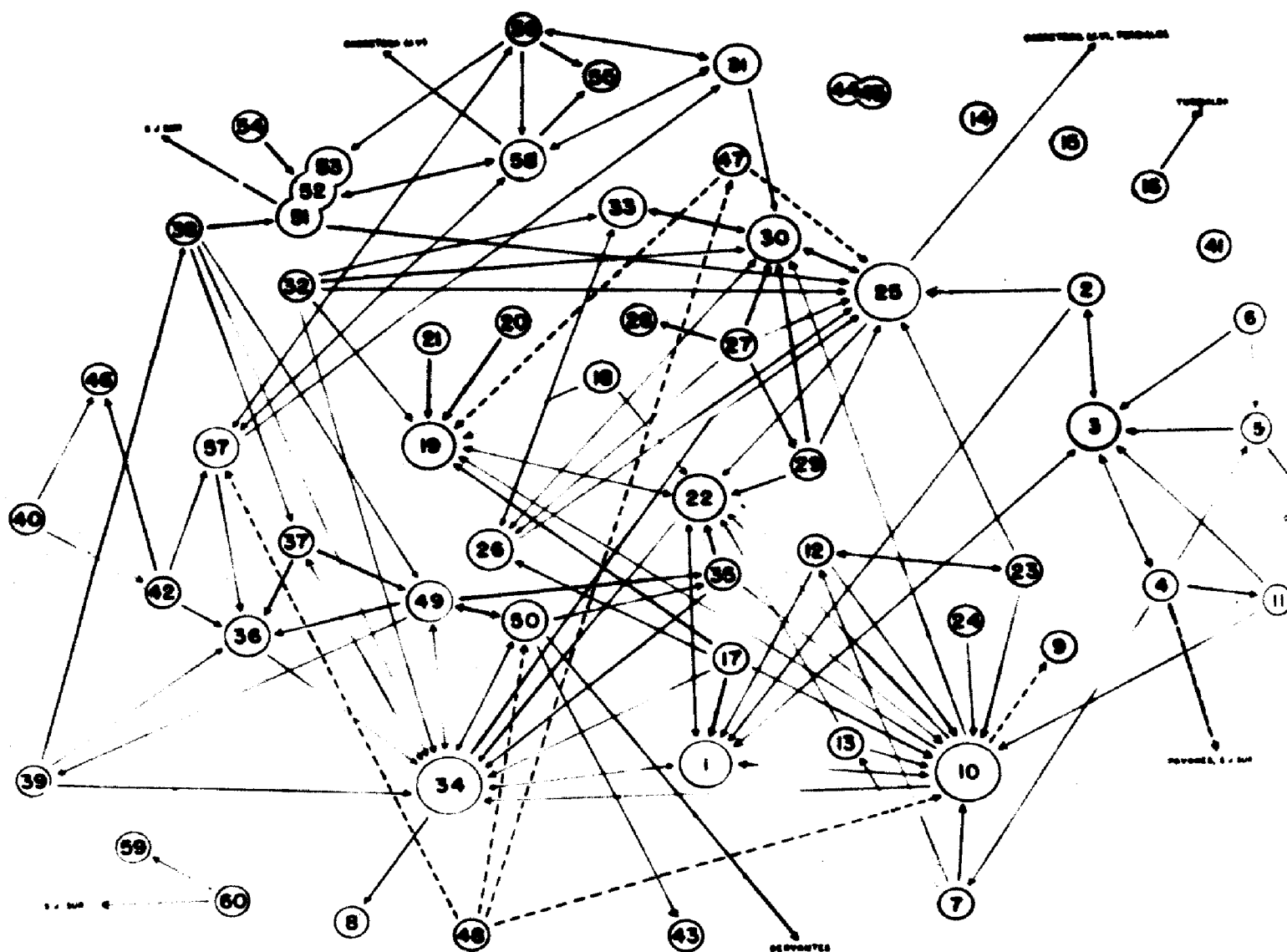
If by social class in the social honor sense is meant a discrete unit (a unit more or less sharply demarcated from other units of the same order), then there are no social classes in San Juan Norte. This does not gainsay the fact that there are people with "more" social honor. There was some consensus among villagers as to what individuals they would choose to represent them in village contacts with people or institutions beyond San Juan Norte. The assumption was that villagers would select those persons they considered outstanding in the village.⁴⁸ (See Table 11).

Many of these people who possess more social honor interact as a group--that is, are more in interaction within themselves than with other villagers. (This statement is based upon both an analysis of village visiting relationships, as elicited through a schedule -- see Visiting Chart, and personal observation). However, they are also in close interaction with persons upon whom less social honor has accrued. It would be difficult, and perhaps of little meaning, to draw an arbitrary line between the "top" group (prestige) and the "bottom" group. The theoretical importance this arbitrary division would have is questionable.

⁴⁸ No differentiation is made between "power-leadership" and "prestige." It is assumed, in line with previous studies of similar nature, that villagers would nominate for a hypothetical commission those with most prestige and that these would also have power. (See Selected Bibliography, Norris and Powell.)

VISITING AMONG FAMILIES IN SAN JUAN NORT

TURRIALBA, COSTA RICA, -1953-



LEGEND

NUMBER INSIDE THE CIRCLE REFERS TO A SPECIFIC FAMILY

SOLID LINE (DOUBLE OR SINGLE) — VISIT (BOTH OR ONE-WAY)

DOTTED LINE — ONE-WAY VISIT



In the subjective sense, that is, as the villagers themselves define the situation, there is no social class system in San Juan Norte. There is no inequality in the purely "social" aspect. Seven judges were selected among villagers to classify the sixty families on the basis of "value" (which families were more valuable than others, which less valuable and which had the same value). Judges were selected with the following characteristics in mind: occupation, age, area of residence and length of residence in the village. All of them concurred in the assertion that in San Juan Norte each family was as valuable as any other one, that there was no "most" valuable or "less" valuable family. All of them recognized differences in economic position, but they pointed out that "economic position" is different from the "worth" of a family. Two recognized differences on the basis of intelligence, but said that these differences would accrue to individuals and not to families; that in the same family there could be individuals more valuable than others. Another said that individuals would be different on the basis of "honesty," but again this would be for individuals and not for families. Two of the judges made mention of the fact that "San Juan Norte is a big family."

It should be noted that the small "group" with the most social honor is better off economically than the other villagers. Its members held key positions in the power stratum, in the Junta Edificadora, the Junta Progresista, in the Junta de Educacion and in the Patronato Escolar. Thus

the three individuals mentioned in the discussion of power are key members of all organizations in the village. However, economic position seems not to be the determinant, since the men with the most prestige and power are not the wealthiest.

H. Level of living

1. Diet

Five food items are universally consumed daily in San Juan Norte: rice, beans, corn meal tortillas, aguadulce (solid brown sugar boiled with water) and coffee. For breakfast there is always coffee and tortillas; for lunch, rice, beans, tortillas and aguadulce; for an afternoon snack arepas (a type of homemade sweet bread) and coffee or aguadulce; for dinner, rice, beans, tortillas and aguadulce. These are the ever-present basic foods. There are, of course, variations on this main theme: coffee may be had with milk; cheese may be added to breakfast tortillas; there may be eggs for lunch; for dinner there may be a stew made of potatoes, native roots, cabbage and beef. Beef may be had in different forms.

The per family consumption of milk is very low. Eight of the 45 housewives interviewed reported little or no consumption at all. Previous studies⁴⁹ confirm the observation that village consumption of green vegetables is also very

⁴⁹ A schedule on nutrition was administered in 1950 to 10 families randomly selected from the village.

low. Attempts have been made by the rural teacher, STICA agents and extension students from IAIAS to stimulate the production of vegetables for home consumption. All attempts have practically failed. It appears that in the matter of diet no change has been accomplished in the last two years. Very few fruits are grown in the village (with the exception of guavas and bananas) and therefore the consumption of fruit is also very low. Consumption of meat is low.

To an outside observer this daily diet may appear unbearably monotonous, yet it is psychologically satisfying to villagers. The villagers' attitude toward tortillas, rice and beans and aguadulce may be epitomized by the following comment from a villager who once worked as an assistant cook outside the village:

".... in the mornings they used to give me eggs and meat; breakfast was really a lunch, yet I would have traded all that for the tortillas that I get here at home. I used to feel as if I had not eaten...."

A direct attempt at substituting any of these basic foods by other food items will most probably produce negative results.⁵⁰

2. Health

In the years 1951 and 1952 35 babies were born in San Juan Norte. All births occurred in the home. In the

⁵⁰

See J. O. Morales, N. Scrimshaw and A. Arce, "Health Systems," C. P. Loomis, Turrialba, Social Systems and the Introduction of Change, Glencoe, Ill.; Free Press, 1953, pp. 137-39.

same period seven deaths occurred, six of which were of children under 18 months of age and one a 75-year old man. Except for one unknown case, gastro-intestinal disorders constituted the cause of all children's deaths.

In the year 1951, IAIAS made arrangements with the local health authorities for medical examinations of each member of eight randomly selected family units as part of a larger medico-clinical study of the Turrialba area. The result of these medical examinations reveal an almost universal infection with intestinal parasites. The majority of those examined from San Juan Norte had three types of parasites, some even more. Many of those who were examined suffered from avitaminosis and malnutrition. In this respect San Juan Norte did not differ from the rest of the Turrialba area.⁵¹ See Table 12.

Table 12
Parasitic Infection, Turrialba, 1951

<u>Type of Infection</u>	<u>Number of Persons</u>	<u>Percent of Total</u>
Ancylostomas, Ascaris Lumbricoides, Trichiuris Trichiura (3 infections)	316	40.4
Any two infections	325	41.6
Only one infection	115	14.7
No infection	<u>26</u>	<u>3.3</u>
TOTAL	782	100.0

⁵¹Cf. J. O. Morales, N. Serimshaw and A. Arce, op. cit., pp. 139-43.

Tooth decay was also almost universally present in all the area. In the study of San Juan Norte no second medical examinations had been made at the time of this report and it is not possible to say if the incidence of parasitosis has increased or decreased. Tooth decay is still one of the major maladies which beset the community. At times a person may be suffering from a toothache for a week or more, his face all swollen up, and he still has not seen the dentist, or what may be more prevalent, the dental mechanic, for an extraction. A high percentage of villagers have false teeth.

Because of the high incidence of parasitosis and the knowledge that impure water might be one of the main sources of infection,⁵² the local school teachers campaigned for the boiling of water and for the construction of privies, if none was had.

Information of the practice of boiling water was collected from 45 housewives. Only seven reported boiling their drinking water regularly; two claimed boiling it occasionally; the remaining 36 never boiled it.

Only five families of the 45 interviewed reported that they had no privies. All but four of the 45 had had them for over two years.⁵³

⁵²None of the families studied boiled their drinking water.

⁵³Three of these four gave as their source for the idea the local police agent; the other, the health agent in Turrialba.

During the past two years numerous household pests, such as fleas and niguas (chiggers), have been entirely eliminated through the use of chlordane.

The public health unit and the local hospital:⁵⁴ The local hospital is a "social security" entity organized according to the plans of the American Association of Hospitals. As a general rule, a fundamental prerequisite for hospital service is that the individual be insured in the Costa Rican Department of Social Security. Social security is obligatory for all wage earners under 65 years of age. The directly insured and their wives and children under 18 have the right to medical attention, medicine and hospitalization. Only 18 of 42 informants (from whom information is available) had this form of insurance.

The public health unit functions in the area of preventive medicine and simple first aid and is designed to supply services to those who are not covered by social security.

Of the 49 families for which information is available, 13 had visited the public health unit at least once during the preceding 12 months, while only 7 had visited the hospital. This makes one suspect that the influence which such agencies have in changing health habits of villagers may be small. There is no consensus of opinion on what either of these two agencies actually is, a fact which makes it difficult,

⁵⁴J. O. Morales, N. Scrimshaw and A. Arce, op. cit., 146-54.

if not impossible, to conceive of a village image of them.

With respect to the quality of the services which are performed by the public health unit, about one third of the informants (15) were "opinionless"; eight of the ones who had visited it were satisfied with the services which the agency had rendered them. A sizable group (11) expressed dislike for the "bureaucratized" ways of the agency; some expressed the opinion that it was better to save money and go to a private doctor. No one mentioned having received written literature from the health unit, nor mentioned it as a source for new practices in health.

With respect to the quality of the services that the hospital performs, about half of the informants (23) were "opinionless". The majority of the other half, either through actual contact with the hospital or through hearsay, thought the services performed by the hospital were "good."

General health practices: In case of sickness it is common practice to treat oneself, following traditional household remedies which often involve the use of local herbs. There are no local curanderos. If the malady persists, someone may be sent to Turrialba City to see a pharmacist and get a prescription from him. In many cases it is a habit to wait for days, weeks or even months before a physician is consulted.

Recently a book on household remedies - Consejero Medico del Hogar - made its appearance in the community. It might be of interest to explore in the future if it has made dents in local health practices.

C. Housing

Practically all village houses are owned by the occupants. They are of wood construction and roofed with galvanized steel plates and bricks. The wood for house-building is usually village lumber, which is taken to Turrialba City for milling. All houses, with the exception of two, are unpainted. There are several houses which are made almost entirely of dry sugar-cane leaves and others which are roofed with that material.

Immediately adjoining the better homes is a galeron, sometimes with a sugar-cane leaf roof. This galeron houses the oxcart, if the family owns one, and serves as storage for firewood and farm tools. The privy is constructed away from the house.

The living room is very modest. In many homes its walls are covered with newspapers. For furniture there may be a few benches or stools and a table. The living room usually houses a very rustic altar. Sleeping rooms are few. Since windows are rather small, ventilation is rather poor. Beds are of a very rustic type, homemade many times. The kitchen has, in the majority of cases, a dirt floor.

The almost universal means of lighting a house is through candles, which are stuck to the side beams with melted wax.

D. Clothing

Adult males buy all their clothing ready-made in Turrialba City, except their underwear, which is made in the home. A

few have it made to order in Juan Vinas, a neighboring town. The use of hats -- straw or felt -- is almost universal and even very small children very often wear them. The great majority of males go barefoot most of the time, except on days of village festivals. Part of a male's daily attire is a long knife in a leather case, which is hung from the waist. Since the male's attire comes from beyond the village, changes in male fashion may be introduced by way of Turrialba City. Thus, a few of the young boys wear pachuco (zoot suit) pants with a peg-top cut.

Females buy the material for their dresses in Turrialba City. Dresses are made in the village, either by the housewife herself or by some local seamstress. They are generally made a la cabeza, without a pattern. A few of the girls have theirs made by regular modists in Turrialba City. There are very few sewing machines in the village. The great majority of women go barefoot most of the time, except on days of village festival.

Villagers are in the habit of wearing new clothes for such religious-social festivals as the feast of the patron saint, and the feast of Corpus Christi.

IV. AN ANALYSIS OF CULTURAL CHANGE

By convention, the study of culture is supposedly assigned to anthropologists. Presumably, the study of cultural change should also be so. However, in actual practice the study of cultural change must concern (and does) the sociologist and historian as well.

It is therefore relevant at this point to take a quick glance at what is going on in the field of cultural change. Following convention, a start will be made by discussing, in summary fashion, the several "schools" of anthropology which in the past have addressed themselves, either implicitly or explicitly, to the problem of cultural change. Wherever important, the work of men in other allied disciplines, which touch upon the problem, shall be included. The more recent trends in the study of cultural change will also be discussed.

A. The history of the study of cultural change

"Evolutionism" was perhaps the first school in anthropology to deal with the problem of cultural change in a systematic way. Although the belief that culture developed, or changed, in a progressive manner from a "primitive" to a "civilized" stage originates long before Darwin's time, it was in the period of Darwin, when "evolution" became the fashion, that the concept was applied to changes in culture. Pitt-Rivers, Spenceer, Morgan and Sumner are names, among others, associated in one form or another with the problem

of "simple" origins of "complex" states of culture. The original school of evolution remained pretty much an English school, where it gradually lost much of its initial impetus.¹

"Diffusionism" also had its beginnings in England, and came as a reaction against "... the subjective simplifications, hence distortions, of the real events..." of evolution.² In its extreme form diffusionism attempted to define the development of culture throughout the world and throughout human existence. Elliott Smith, one of the early diffusionists, claimed that all civilizations could be traced to Egypt: the civilization of the American Indians, the Mesopotamians, etc. were "modifications" of Egyptian culture and had resulted from the diffusion of cultural items from Egypt. Other diffusionists (the German kulturkreislehr) claimed that there was more than one center of culture diffusion. These extreme forms of diffusionism -- which remained largely confined to England and Germany -- should not be confused with less ambitious studies in diffusion which were carried out in the United States by the American historical school. Neither should they be confused with the relatively simple studies in diffusion which are currently going on in rural sociology.³

1. Robert H. Lowie, The History of Ethnological Theory, New York: Farrar and Rinehart, Inc., 1937, pp. 19-29.

2. Ibid., p. 157.

3. Neal Gross, "The Differential Characteristics of Acceptors and Non-Acceptors of an Approved Technological Practice," Rural Sociology, XIV, 1949. pp 148-56.
Bryce Ryan and N. Gross, "The Diffusion of Hybrid Corn in Two Iowa Communities," Rural Sociology, VII, 1943. pp. 24.
See also Selected Bibliography, Number: 49.

"Functionalism" also developed in England and may be considered as a reaction to the extremes of evolutionism and diffusionism. To the functionalists, the crucial importance in cultural change was not the "evolution" or "diffusion" on an item, but the function which it performs in sustaining the unity of society. In other words, an item might "diffuse" from another culture but it would be of no consequence to the receiving culture unless it could be incorporated and fulfill a "function" in the receiving culture.

There are newer trends in the study of cultural change, the problems of which are perhaps more amenable to field research. Among the newer emphases are the studies of acculturation, "culture contact," urbanization, "applied anthropology" and "diffusion."

Acculturation is mainly a product of American anthropology. It encompasses "...those phenomena which result when groups of individuals having different cultures come into continuous first hand contact, with subsequent changes in the original patterns of either or both groups... (it) is to be distinguished from cultural change, of which it is but one aspect, and assimilation, which is at times a phase of acculturation...also...from diffusion which while occurring in all instances of acculturation, is not only a phenomenon which frequently takes place without the occurrence of the types of contact between peoples specified in the definition given above, but also constitutes only one aspect of the process of

acculturation."⁴ Acculturation, as a theoretical tool, has been in use mostly since the 1930's and most of the investigations dealing with it have been carried out in the Western Hemisphere. Although the definition does not state it, investigations in acculturation have been oriented toward non-forced change.⁵

"Culture Contact" is very similar to acculturation. It differs in that it primarily addresses itself to situations in which the change has been "forced." It is a product of British anthropology and developed partly as a result of concern with the consequences of change for colonial peoples. The empirical work connected with it has been carried out mostly in Africa and mostly since the middle 1930's. Names such as Malinowski, Schapera, M. Hunter, Fortes, and Thurnwald are usually associated with it.⁶

Urbanization is also concerned with the problem of cultural change. As Louis Wirth put it: "Urbanization no longer denotes the process by which persons are attracted to a place called the city and incorporated into its system of life ... (but also) ... to the changes in the direction of modes of life recognized as urban which are apparent among people, wherever they may be, who have come under the spell

4. Robert Redfield, R. Linton and M. Herskovits, "Memorandum for the Study of Acculturation," American Anthropologist, XXXVIII, 1936. pp. 149-50.

5. For a general review of the work in acculturation see Ralph Beals, "Acculturation," A. L. Kroeber, "Anthropology Today", Chicago: University of Chicago Press, 1953, pp. 621-41.

6. Ibid.

of the influences which the city exerts ..."⁷ Redfield's studies in Yucatan address themselves to this problem.⁸ Beals has explored new ways of relating the study of urbanization to that of acculturation.⁹

Studies in the field of "applied anthropology" constitute a direct attack on the problem of cultural change. A glance at Human Organization,¹⁰ at Spicer's book¹¹ and at Anthropology Today¹² will reveal cases in point. In Latin America two field investigation programs in cultural change are currently being carried out: Holmberg's studies in Peru and the educational program of the IAIAS in Costa Rica.

Also of relevance to the study of cultural change are several studies conducted on rural social organization.¹³ Newer investigations by some rural sociologists are particularly relevant for the present study since some of them have

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7. Louis Wirth, "Urbanism as a Way of Life," American Journal of Sociology, 44, 1938-39, p. 5.
 8. Robert Redfield, The Folk Culture of Yucatan, Chicago: The University of Chicago Press, 1941.
 9. Ralph L. Beals, "Urbanism, Urbanization and Acculturation," American Anthropologist, LIII, pp. 1-10.
 10. Human Organization, New York.
 11. Edward H. Spicer (ed.), Human Problems in Technological Change (A Case-book), New York: Russell Sage Foundation, 1952.
 12. See articles by Caudill, Kennard and MacGregor, Forde, Held, and Metraux in A.L. Kroeber, op. cit.
 13. Charles P. Loomis, Studies of Rural Social Organization in the United States, Latin America and Germany, East Lansing, Mich.: State College Bookstore, 1945.
Olen E. Leonard and Charles P. Loomis (editors), Readings in Latin American Social Organization and Institutions, East Lansing, Mich.: Michigan State College Press, 1953.

specifically taken to task the study of the diffusion of farming practices. However, most of these studies on the diffusion of practices have been concerned with establishing correlations between acceptance or rejection of a practice and certain variables such as socio-economic status, use of the formal media of communication, etc. Some of them have been concerned with the relevance of culture in the acceptance or rejection of practices¹⁴, but in a slightly different way, as will become evident later.

Some other studies of cultural change have not been mentioned above because their relevance for the present study seems rather remote. Spengler,¹⁵ Toynbee,¹⁶ Sorokin,¹⁷ and Mannheim,¹⁸ among others, are concerned with cultural change, but in terms of whole civilizations.¹⁹ Ogburn's²⁰ study of

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14. See for example: H.A. Pedersen, "The Emerging Culture Concept: An Approach to the Study of Cultural Change," Social Forces, XXIX, 1950., also "Cultural Differences in the Acceptance of Recommended Practices," Rural Sociology, XVI, 1951.
 15. Oswald Spengler, (tr. Charles F. Atkinson), The Decline of the West, New York: A. A. Knopf, 1946.
 16. Arnold J. Toynbee, Civilization on Trial, New York, Oxford University Press, 1948.
 17. Pitirim A. Sorokin, Social and Cultural Dynamics, (vol. III), New York: American Book Co., 1937.
 18. Karl Mannheim, Man and Society in an Age of Reconstruction, New York: Harcourt, Brace and Co., 1940.
 19. For a criticism of these theories of change see: R. M. MacIver, Social Causation, New York: Ginn and Company, 1942., Chapter 4.
 20. William F. Ogburn, Social Change, New York: The Viking Press, 1950.

social change is also addressed to a large problem -- changes in different spheres of a large culture. This is a far cry from the problem in San Juan Norte: the study of a very small aspect of cultural change.

No attempt was made above to be analytically precise about distinguishing cultural from social change, since the two fields are not explicitly separated in the works that were cited. For some investigators²¹ cultural change is the all-inclusive, for others²² it is social change.

The analysis of cultural change in San Juan Norte could be called a study in the diffusion of agricultural and health nutrition practices. It bears strong resemblance to similar studies conducted by some American rural sociologists. However, the emphasis of the present study is not with correlations but with finding out "why" the practices are accepted or rejected. As will become evident, it leans on functionalism; the functional unity of society is assumed as a working hypothesis. The study might be called a study in applied anthropology in the sense that the change agent (IAIAS in this case) was consciously aware of the "experimental"

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21. See for example, Kingsley Davis, Human Society, New York: The Macmillan Company, 1948, pp. 622ff.; Julian Steward, Area Research--Theory and Practice, New York; Social Science Research Council Bulletin 63, 1950, pp. 98ff; Stuart F. Chapin, Cultural Change, New York: The Century Company, 1950, pp. 98ff; Stuart F. Chapin, Cultural Change, New York: The Century Company, 1950, pp. 98ff.
22. See William F. Floyd, op. cit., passim., R. M. Maciver, op. cit., passim.

nature of the situation, and that plans had been drawn up in advance for further explorations of the situation. In a certain way the study might also be conceived of as a special case in acculturation, since there has been "continuous first-hand contact," as will be shown below, between agents from IAIAS, and the villagers of San Juan Norte.

B. Theoretical Framework

Two fundamental assumptions were made when the field investigation started. First it was assumed that a practice is a complex of items which has ramifications in areas of the culture other than those with which it is mainly identified -- the boiling of drinking water involves extra labor for the womenfolk, the use of sterilized containers and a knowledge of sanitary rules. Second, it was assumed that the several orders of society (family organization, religion, status, etc.) constitute a unity and are in a state of equilibrium. For the purposes of this study, this assumption implies two things: (a) any item or practice that is introduced will also impinge on areas other than that with which it is mainly associated, and (b) these areas, upon being disturbed by the item, will impinge on it; their reaction will be crucial for the acceptance or rejection of a practice.

These two assumptions made it necessary to do an ethnography of San Juan Norte, for if it was assumed that the several areas of the culture were of importance in the acceptance or rejection of a practice, then it was mandatory that these areas be studied. The breakdown of the social system into

economy, kinship, etc. was arbitrary; some other classificatory scheme could have been used just as well.

Three practices were selected for intensive study. Two, the use of an insecticide and the planting of a variety of sugar cane, are in agriculture; the third, vegetable home gardens, is a combination of agriculture, health and nutrition practices. The insecticide is a clear-cut example of a successful introduction of a practice; the practice of cultivating vegetable gardens has been a failure; the adoption of a new variety of sugar cane is an example of a spontaneous, slow change in a practice.

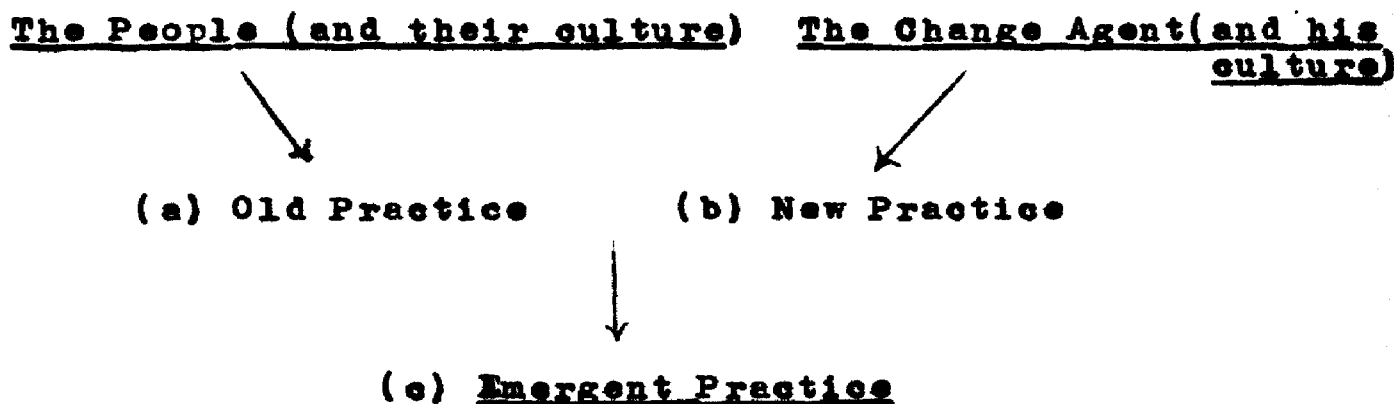
A certain orientation will guide the analysis of the process involved in the acceptance or rejection of a practice.²³ The process of acceptance or rejection of a practice -- process of change as it shall be called -- is here meant to include the dynamics of all those factors which in one way or another facilitate or hinder the acceptance of a practice. For purposes of analysis the process of change will be broken down into three general areas: the "what" of the practice; the "how" of the practice, and the "why" of the practice.

The "what" is subdivided into (a) the "old practice"; (b) the practice as it has been presented to the people by

23. This presentation leans heavily on M. J. Herskovits, "Processes of Cultural Change," in R. Linton and B. Malinowski, The Dynamics of Culture Change.

the change agent and (c) the resultant practice, if there has been any change. (See chart, below). The old practice refers to the practice which the people had (if there was one) before the new practice made its appearance; "b" refers to the practice as the change agents conceived it, i.e., without any modifications from the people; "c" refers to the new practice as it was finally incorporated into the local culture, if it was, and includes modifications on "b".²⁴

THE "WHAT"



The "how" refers to the dynamics of the attempt at change. It includes such variables as the method which was followed by the change agents in introducing the practice, the channels through which information passes, the social mechanisms involved in the attempt at change and so on.

The "why" will be an attempt at systematizing the information that is available from the present study on the process of change. Hypotheses will be set up and tested.

²⁴. See B. Malinowski, Op. cit., especially Chapter 7.

In setting up these hypotheses, there was concern for including among the variables those which are of a strictly psychological order, that is, variables dealing with the individual in his capacity as an individual; variables of a sociological nature, that is, attributes of social structure, and variables of a cultural nature, that is, attributes of a culture. (See schema).

What	A) Old practice B) New practice C) Resultant practice
How	Methods used for bringing about change; social mechanisms involved in the attempt at change
Why	Testing of hypotheses. These hypotheses should contain variables of a psychological, a sociological, and a cultural nature.

After the three practices are analyzed an attempt will be made to generalize from them and to point out those hypotheses which seem significant in the acceptance or rejection of a practice.

For a complete discussion of the "what" of the process of change, one should ideally analyze those elements in the culture of the receiving group which might influence the acceptance or rejection of the practice. Likewise, one should discuss those elements in the culture of the donor group, the change agent in this case, which might influence the acceptance or rejection of the practice. Looking at it from this framework one could consider the process as one of

acculturation. However, in the present study the emphasis has been on the culture of the receiving end, the villagers, rather than on that of each end.²⁵

C. Practices in agriculture

1. Chlordane: A success in a conscious attempt at change

The use of the insecticide chlordane as a practice in agriculture was selected because it represented a clear-cut case of success in a conscious attempt to introduce change. It was thought that an analysis of the dynamics involved in the acceptance of chlordane would throw light on the "why" of acceptance of practices in agriculture.

A schedule was constructed (see Appendix). Questions were asked on the habits associated with the use of insecticides to combat ants (The "what"); and on the methods used in the introduction of the practice (The "how"). Additional information was also requested which would shed further light on the dynamics of the acceptance or rejection of the practice.

The hypotheses which are enumerated below were formulated after a series of informal talks with villagers and IAIAS personnel. Hypotheses I, II and V follow from the query on the "what." Hypotheses III, IV, VI and VII concern

25. It was implicitly assumed that the culture of the change agent was not a significant variable for the analysis of this particular process of change. It was found out that for the particular cases which are discussed below, the culture of the change agent was of little or no influence in the process of change.

the "how." Both attempt to answer the "why."

Chlordane was accepted because:

- Hypothesis I. Villagers felt the need for an effective formicide.
- Hypothesis II. The use of chlordane fitted well into their culture (habits of work in agriculture).
- Hypothesis III. Objective proof of the effectiveness of chlordane was furnished.
- Hypothesis IV. Villagers had a positive image of the agents of change and of the agencies connected with it. (It was assumed that the agency of change was IAIAS and the agents a group of Venezuelan extension students who had worked in the village two years previously).
- Hypothesis V. The use of chlordane was easy to understand from the villagers' point of view.
- Hypothesis VI. The local leadership structure was not by-passed; on the contrary the change agents worked through the leaders.
- Hypothesis VII. The local prestige structure was not by-passed; the change agents used it to their advantage.

The "What": For a long time ants constituted a problem in San Juan Norte and the surrounding countryside. One villager claimed (though with exaggeration) that formerly he could not get out of bed after seven in the evening because the floors were covered with biting ants. Most villagers concurred, though, in the assertion that ants constituted a real problem for farmers. The almost total absence of fruit trees (except guavas) and vegetable gardens is attributed to ants. It was also claimed that ants did considerable damage to coffee plantations.

In the past villagers had been in the habit of using several formicides, but ants still persisted in large numbers. Before the introduction of chlordanes, villagers used carbon bisulfide to literally bombard the ant nests. Carbon bisulfide was mixed with water, the nests were flooded, and the mixture was exploded. This ant extermination work was done by adult males. In comparison to chlordanes, carbon bisulfide, as well as other formicides which had been used before²⁶ was expensive.

Chlordanes was introduced in 1951 by several Venezuelan extension students from IANAS. In demonstrations, villagers were advised to mix chlordanes powder in the proportion of one spoonful to a quart bottle of water and to pour this

26. The 13 members of the sample claim to have used carbon bisulfide before the advent of chlordanes; 7 claim to have used cyanogen (or sublimate) before using carbon bisulfide.

mixture into the ant nest. It was not possible to ascertain whether the extension agents advised villagers to use chlordane on other pests. Most of the villagers claimed that they did not.²⁷

During the time of this study the use of chlordane was almost universal in the village. Twelve families in the sample of 13 were using it. Although villagers were advised to use it with water, most of them used it in the dry form. Nine, in the sample of 13, used it dry, while only 3 used it in the wet form. (One person was not using it.) In the fields it was used as a formicide by adult males, while the housewives used it to exterminate household pests. Eleven, in the sample, had used it on other pests. It is claimed that chlordane did away entirely with bedbugs, fleas, and nigua (chiggers); one villager claims that it is highly effective in combating head lice. Many women use it, although without much success, on cockroaches and flies.

In short, villagers were in the habit of combating ants with several formicides before the advent of chlordane. The practice as presented by the change agents was modified in that formicide was used to combat other pests and in that most farmers used it in the dry form.

The "How": The Venezuelan extension students were connected with the Department of Economics and Rural Life

27. However, several villagers were brought to IA IAS for a "Demonstration Day." The records explicitly state that the use of chlordane was one of the items discussed.

of IAIAS.²⁸ A basic orientation of this Department is that change agents must work through community leaders and that extension work is facilitated by gaining the confidence of the people. The local leadership structure of San Juan Norte was already known through some previous study;²⁹ when the extension students arrived in the village they worked through this structure. Not only did they try to win the confidence of the leaders but they also attempted to work with the community at large.³⁰ According to one villager, some of the students even joined the soccer games in the village plaza. It seems fairly certain that the students, on the whole, made a favorable impression on the villagers. The introduction of chlordane is attributed by the majority (eight out of the sample of 13) of villagers to these IAIAS students. The image that villagers have of IAIAS is generally positive.³¹

28. Dr. Spencer Hatch was in charge of training the Venezuelan students in agricultural extension methods.

29. In 1948 a schedule was administered to a sample of families from San Juan Norte. Questions similar in nature to number 11 of the schedule for male heads of family used in the present study were included. Analysis of these questions by IAIAS personnel revealed the local leadership structure existing at the time. It is assumed, of course, that the leadership structure had not changed by the time the Venezuelans had arrived.

30. Thus, not only are they well known among village leaders, but non-leaders as well speak highly of them.

31. See pp. 70-71 for an image of IAIAS.

The Venezuelans assembled a sizable group of villagers, leaders and non-leaders, persons with different grades of prestige, in the galeron in front of the church and lectured to them on the use of chlordane. Immediately after the lecture they demonstrated the use of chlordane in the field. They had villagers try it out themselves. The ants in these demonstration nests were effectively exterminated. The students had brought some chlordane with them, which they sold to farmers. Other supplies were put on sale through the auxiliary police agent.

It must also be pointed out that four village leaders were brought over to IAIAS for an all-day period of demonstrations previous to the village demonstration. The use of chlordane was one of the items touched upon by IAIAS personnel. One of these four leaders was the auxiliary police agent.

Not all villagers started using chlordane through the influence of the Venezuelans; in fact, some had not even heard of them. For instance, 3 in the sample, claimed not to have heard about them. Some villagers give as their source of information the jefatura politica of Turrialba through the local auxiliary police agent. Thus, 2 in the sample of 13, claimed to have heard about chlordane for the first time from the police agent.

This is understandable in view of the fact that since 1925 there has been a law in Costa Rica which makes it mandatory for farmers, under penalty of a fine, to extermi-

nate ant nests on their farms.³² This law was reactivated early in 1950. Instructions were transmitted to the canton political chief's office to have this law enforced. The local auxiliary police agent, as the representative of the jefe politico in the village, was to see that the law was enforced; at the same time he was to act as a local sales agent for chlordane and instruct the local farmers on its use. In actuality, San Juan Norte's police agent did sell chlordane obtained from the political chief's office in Turrialba during the period the Venezuelans were visiting the village. He also acted as the sales agent for the latter.

Other villagers give as their source of information on chlordane neither the Venezuelans nor the local police agent. Instead they refer to well-known farmers in neighboring farms beyond the village and to farmers within San Juan Norte. In the sample of 13, two claim to have gotten the idea of using chlordane from neighboring farmers; one claims a village farmer as the source.

In summary, three sources were responsible for the spread of the practice: the Venezuelan students, who were the most important source; the auxiliary police agent, and farmers from within and from without the village. The Venezuelans were elaborate and systematic in their demonstrations, a situation not true for the other sources.

32. Ley No. 117 del 11 de agosto de 1925. (Law No. 117, 11 August 1925).

The "Why": It may help to clarify matters if an operational definition of "needs" is made. What is meant by "need"? How can "needs" which occur several years previous to a study be inferred from an interview or schedule? For the purposes of this study a "need" has been equated with a conscious dissatisfaction on the part of the individuals of a group. For example, if the people were to feel (that is, believe or be aware of) that the type of sugar cane they were raising was unproductive or the formicide they were using was ineffective then it would be considered that they felt a need for change.

Furthermore, from the field study at San Juan Norte it appears that a need is felt by individuals when there is implicit or explicit knowledge or alternatives -- thus a need for changing the variety of sugar cane might be expected when (1) the people were dissatisfied with the variety presently in use and (2) they had knowledge (however vague) that there was a more productive variety available. It might be said, then, that needs are conditioned by a "dissatisfaction" and an "aspiration." In the present study the explicit criterion used to assess whether a need existed was "conscious dissatisfaction."³³

Hypothesis I: The hypothesis was confirmed. Villagers felt a need for an efficient formicide. All in the sample

33. Cf. H. G. Barnett, Innovation: The Basis of Cultural Change, New York: McGraw Hill Co., 1953, Chapters 4, 5 and 6.

of 13 were combatting ants before the advent of chlordane. Ten of them considered that the situation was more serious before the coming of chlordane while eight thought the problem of ants had still not been solved. This might make one suspect that there was still a need among many villagers for a more efficient formicide. Credence to this belief is given by the fact that at a meeting in which the STICA agent was present, two villagers asked if anything more effective than chlordane was available. (Three villagers have tried a new insecticide, which was, incidentally, the same one which had been recommended by STICA).

Hypothesis II: The use of chlordane fitted into the culture of the community. All in the sample had been combatting ants for as long as they could remember,³⁴ so that the use of chlordane did not involve a marked deviation from their work habits. The sample further revealed that it was the adult male population which combatted ants with carbon disulfide and it was the adult population which combatted ants with chlordane.

Hypothesis III: The Venezuelans, through village demonstrations, provided objective proof about the efficiency of chlordane, which was accepted by many of the villagers.

34. Ten of them claim that their fight against ants (with carbon disulfide) was intensive; 2 claim that nothing was used very much; 1, that nothing was efficient.

Eight of the sample of 13 claimed to have been influenced by the demonstrations; of these, six had attended the lecture-demonstrations. The auxiliary police agent did not attempt, however, to furnish objective proof through demonstrations; he communicated the news that he had "an effective formicide" to several villagers, who in turn bought it from him. Those who heard of chlordan from other farmers were not given demonstrations about its efficiency; they were simply told that chlordan was an efficient formicide. They all tried the powder and were convinced of its efficiency. In the case of the Venezuelans, the change agent provided the objective proof. In the case of the auxiliary police agent and other farmers, the 'change agent' simply explained that the powder was more efficient -- the villagers tried the powder and were convinced of its efficiency.

It must be pointed out that five of the eight who were influenced by the Venezuelans did not receive a free sample of the powder. One of the two who were influenced by the police agent also bought it without having tried it on a free basis. Of the remaining three, one bought it first; the other two tried it first gratis.

Hypothesis IV: The assumption that there was only one change agent was discarded. There were actually three change agents: the Venezuelans (representing IAIAS), the police agent and individual farmers. By far the most influential one was the group of Venezuelans. The image that villagers had of them was positive -- five of the eight who were in-

fluenced by them spoke highly of their comportamiento (behavior) in the village.³⁵

The next "change agent" was the auxiliary police agent. He is in his own right a very popular figure in the village. (See his position -- #25 -- in the Visiting Chart, and in Table 11). No systematic information was collected on the "neighboring farmers."

Hypothesis V: This hypothesis seems to be confirmed. None of the villagers expressed lack of understanding of the procedure followed in combating ants with chlordane. In fact this method appears to be less complicated than their previous one of bombarding the nests.

Hypothesis VI: The Venezuelans were in close touch with local leaders. Through them they assembled groups of villagers for demonstrations. However, they also attempted to work with all the population, leaders and non-leaders,³⁶ through lectures, demonstrations and community participation.

As for the other sources of information on chlordane, the auxiliary police agent is a strong leader in the community. The three farmers who were mentioned in the sample as sources of information on chlordane are not members of the local leadership structure. One is a wealthy absentee farmer; another possesses a small farm in San Juan Sur, and

35. There was failure on the investigator's part to elicit information from the other three.

36. The demonstration meetings that were carried out took place in the house of a strong village leader and on the farm of an important village leader. (See Numbers 22 and 10 in Table 11 and in Visiting Chart)

the third possesses a very small farm in the village.

Hypothesis VII: In the village of San Juan Norte no clear-cut distinction can be made between being a leader and having high prestige. The two characteristics go together. The Venezuelans, by working through the leaders, were simultaneously working through the prestige structure of the village. However, the crucial nature of prestige in the dissemination of the practice is open to doubt. It appears that there was an almost simultaneous diffusion of the practice. There is no awareness among most villagers as to who was the first one to use chlordane. Most of them say "they all tried it simultaneously." Of the sample of 13, only three mention two villagers of high prestige as the first to use chlordane in the village. However, neither one claims to have gotten the idea for chlordane from these two villagers. Eight persons said that "we all tried it at the same time." One said that he was one of the first to try it, but could not cite any others. The other one did not know who was first.

As was the case with "leaders," the particular role which persons with prestige played in assembling villagers for the demonstration -- a fact which may have accelerated the dissemination of the practice -- was not explored in this study. The element of recall, as to who were the first to use chlordane, may have been conditioned by the factor of time.

Summarizing the factors on the "why" of the acceptance of chlordanes, the following generalizations stand out: Villagers felt a need for the insecticide. Its use fitted very well into the local culture. The Venezuelans furnished objective proof of its efficiency; other change agents gave verbal assurance about its efficiency which was accepted by some villagers. The use of chlordanes was easy to understand. "Leadership," "prestige" and "image of the change agency" appeared not to have been very significant variables in the introduction of chlordanes.

It was pointed out that some villagers use chlordanes in the powder form rather than in the liquid form which was demonstrated. Some claim that this was their own idea; that they experimented with it in the dry form and seemed to get better results. However, it was not possible to ascertain why this change has occurred.³⁷

It was also pointed out that chlordanes was used in the extermination of other pests. Of the 10 in the sample of 13 who claimed to have used it on other insects, four gave no source for the idea but claimed instead to have experimented with the powder on other insects and discovered its effectiveness. Three claimed to have gotten the idea from other villagers (no specific names were mentioned) One

37. Although many factors, such as nature of soil, humidity, etc., affect the effectiveness of chlordanes, nevertheless as a general rule chlordanes is more effective in the wet form. (Written communication from Mr. Rafael Gonzales Mendoza, Colombian entomologist.)

thought that he might have gotten the idea from the Venezuelans and one gave the newspaper as the source of information. There was no answer from two as to the source. This suggests that the urgency of the need to exterminate other household pests was strong enough to induce them to try the insecticide.

The introduction of chlordane as a practice may be considered a success from a non-technical viewpoint, since practically all villagers use it. From a technological viewpoint the success is questionable. Ants still beset the village and still constitute a problem. By virtue of the law, the police agent has authority to coerce farmers into exterminating their ants or at least making an effort to do so. Yet, it is doubtful that he, as a member of the community, would attempt to enforce the law. Land tenure and type of farming are important variables which condition the effective extermination of ants. If one farmer is lax, ants from his land will spread to other farms where the farmer might have managed to bring his own problem under control. The fact that 63 percent of the land is either pasture or waste land, and therefore a breeding place for ants, is also a crucial point in extermination.

2. Home vegetable gardens: A failure in a conscious attempt at change

The attempt to re-introduce the cultivation of home vegetable gardens was selected for analysis because it represents a clear-cut case of failure. It is thought that

for an analysis of the factors which prevented the practice from being successful general principles might be developed which would serve as guides for future attempts at change.

In devising a schedule on the practice of cultivating vegetable gardens (see Appendix), a procedure was followed which was very similar to the one used with chlordanes. Questions were asked on the "what", and the "how" of the practice. Some additional questions were also asked, which together with those on the "what" and the "how" would help clarify the "why" of the practice.

Hypotheses I, II, III and IV, which are enumerated below, were set up to account for the failure of the attempt at introducing the practice. Hypotheses V, VI and VII were set up to investigate the crucial nature, for this particular case, of such variables as "understanding," leadership and prestige.

The cultivation of home vegetable gardens was not successful because:

Hypothesis I: Villagers felt no need for home vegetable gardens.

Hypothesis II: Home vegetable gardens did not fit into two aspects of village culture, work habits in agriculture and food habits, since:

a. Villagers were involved in commercial agriculture, which took most of their time and left them little time for home gardens (which due to technological factors were time-consuming).

b. The consumption of vegetables was not a part of their daily food habits.

Hypothesis III: No objective proof of the feasibility of planting the gardens was furnished.

Hypothesis IV: Villagers had a negative image of the teacher as an agent of change in agriculture.

The following three supplementary hypotheses were set up:

Hypothesis V: The cultivation of vegetable gardens was an easy matter to understand, from the villagers' point of view. (If this is so, then it should follow that "understanding" was not a crucial variable in the process.)

Hypothesis VI: The local leadership structure, as in the case of chlordane, was considered.

Hypothesis VII: Prestige had no direct relation to the acceptance or rejection of the practice.

The "What": Most of the villagers have at one time or another planted vegetables, that is, cabbage, lettuce, tomatoes, carrots, beets, and radishes which are here referred to by the general name of vegetables. Ten in a sample of 12 claimed to have planted vegetables at one time or another in their lives; however, this cultivation had always been sporadic rather than continuous. Only one had never cultivated them. Most of them were taught to do so early in school or learned through their parents. Thus, seven of the 10 started cultivating them when they were children. In the past the school has almost always sponsored

a school vegetable garden; it has also distributed seeds among the pupils for home cultivation. However, the practice of having a permanent home vegetable garden has been practically non-existent.

The health and nutrition studies made by IAIAS in the Turrialba area in 1949 and 1950 revealed an almost negligible consumption of vegetables. San Juan Norte was included in this study. The medico-clinical examinations also conducted in the same period revealed serious vitamin deficiencies in San Juan Norte. It was planned then to have the local teacher sponsor a program for the cultivation of vegetable home gardens, which would supplement the local diet, and remedy some of these food deficiencies.

The local teachers and extension students from IAIAS attempted to reactivate the production of vegetables for home consumption. The results of this effort, compared to the original goals, were not encouraging. Two of the 45 informants had a garden at the time of the study, only one of which could be traced to the influence of the teacher. Only half of the informants claim to have heard about the practice from either the teacher or IAIAS.³⁸

Several parents helped their children start gardens; however, these gardens either failed or were abandoned. Two gardens were started on a purportedly commercial basis. One

38. From an analysis of question #35, Schedule for the Male Heads of Family.

of them failed completely, apparently for technological reasons³⁹; the other produced some vegetables but was finally abandoned.⁴⁰

In short, most villagers have cultivated gardens at one time or another but have discontinued them. Permanent cultivation of gardens has not been, therefore, a part of the local culture. Although attempts have been made to reintensify the cultivation of gardens, the attempts were not successful.

The "How": It is difficult to isolate the attempt at intensifying the cultivation of vegetable gardens from a series of other attempts at change which were entrusted to the local teacher. It is perhaps not far from the truth to assert that, for whatever reasons,⁴¹ there was never a systematic attempt at stimulating the cultivation of gardens. There were instead sporadic attempts at introducing change in the different areas of health, nutrition and agriculture.

Specifically, in relation to the cultivation of vegetables, the teacher undertook to cultivate a school

39. By technological factors are meant such items as type of soil, weather, presence of insects, damaged seeds, etc.

40. A villager claims that this garden was abandoned because its owner went away from the village to work as an assistant carpenter.

41 . The present and the former teachers both have complained about the lack of time to carry on their community work.

vegetable garden.⁴² He contacted leaders of the community, asked for help and received their cooperation. One of them lent a plow; many villagers helped in the construction of a bamboo fence around the garden. The children and the teacher did the actual seeding of the garden. IAIAS agricultural extension students gave the teacher advice on the mechanics of seeding. The garden, however, failed -- apparently because technological difficulties having to do with the soil .

Simultaneously, children were encouraged to start their own home gardens. Seeds given by the local STICA agency were free and several gardens were started. None was successful.

In school reunions with villagers at which IAIAS personnel were present, the need of vegetables was stressed both by the teacher and by IAIAS personnel. However, the need for consumption of vegetables was only one of the items which were touched upon in these meetings. The teacher once had a STICA agent address villagers, who, among other items, stressed the importance of vegetable cultivation.

Through the teacher a club was founded to "develop" the community through projects in sewing, carpentry, agriculture, among others. The desirability for producing and consuming vegetables was at times stressed at meetings of

42. The present teacher has not attempted to reactivate the school garden, knowing, as he does, that the previous attempt made by the former teacher ended in failure.

this club; however, this was only one of the items usually discussed.

In their "talks" with villagers the Venezuelan extension students, among other things, stressed the need for the vegetable cultivation. They invited some villagers to see the vegetable garden on the IAIAS grounds; though it appears that no one from San Juan Norte ever visited it.

At no time was the production or consumption of any one vegetable in particular stressed. The interest was in increasing the consumption of vegetables in general; for the purposes of the attempts at change it did not matter if tomatoes, cabbage, lettuce, radishes, etc. were planted.

Summarizing the available information on the "how" of change it can be seen that the teacher, IAIAS extension personnel and the local STICA agent attempted to intensify the cultivation of vegetables. The attempts were diffused rather than concentrated and usually consisted of the lecture approach.

The "Why": An examination of all the data available from the intensive interviews, from the preliminary questions asked in the general survey of practices (in the general schedule) and from personal observations, tends to confirm all the hypotheses postulated, although some of them will have to be qualified.

Hypothesis I: This hypothesis is confirmed, though with some qualification. For the purpose of this analysis, it was assumed that a need for vegetable gardens existed

if there was a need for the consumption of vegetables or for the alteration of prevailing vegetable consumption habits. Analysis of the data revealed that cabbage and tomatoes were consumed relatively often, while lettuce, carrots, beets, and radishes were consumed sporadically. (See Table 13). But vegetables had not assumed anything near the positive meaning of the daily tortillas, rice, beans and aguadules. In other words, the expectation of eating a vegetable everyday was not present in the culture.

Table 13
Consumption of Vegetables by Family in
San Juan Norte, 1953

	Cabbage	Tomato	Lettuce	Carrots	Beets	Radishes
Weekly	5	5	--	1	--	--
Bi-weekly	1	1	--	1	--	--
Tri-weekly	2	1	1	--	--	--
Monthly	1	2	--	--	--	--
Rarely	3	2	4	2	2	2
Not reported*	-	1	7	8	10	10
Total	12	12	12	12	12	12

*The family failed to mention consumption of the vegetable. Presumably such vegetables were not consumed often; however, the data do not permit to say whether or not they were consumed.

Information was asked from 40 housewives, and from 35 male heads of family on the "problems" or dissatisfactions

they had with their diet. Seventy percent of the housewives felt no dissatisfaction with their diet. Only one housewife mentioned the "scarcity" of vegetables as a problem. Seventy-seven percent of the male heads of family expressed no dissatisfaction with their diet; no males expressed the need for increasing vegetable consumption.⁴³

The evidence seemed to indicate that no need was felt for altering vegetable consumption habits, and therefore for intensifying the cultivation of vegetables. However, it is realized that the empirical data that were collected do not permit a clear-cut confirmation of the hypothesis.

Hypothesis II: With some modifications this hypothesis was confirmed. It is necessary here to explain what is meant by "fitting into the culture," since in the present case the situation is somewhat different from that in the introduction of chlordane. "Fitting" is a matter of degree. An item can be considered to fit when its introduction causes minimum disturbance in the culture or in the particular facet of culture in which it has entered. The planting of vegetables is, generally speaking, part of sanjuaneno culture. Most adult males in the village had planted vegetables at one time or another in their lives. But what is not in the local culture is the regular cultivation of vegetable gardens for home consumption. It was towards the end of cultivating vegetables regularly that the

43. From an analysis of Question #30, Schedule for the Housewife; and Question #66, Schedule for the Male Heads of Family.

school teacher and IAIAS extension students channeled their efforts. These efforts ran into difficulties because (a) regular cultivation of gardens would have disrupted other work habits, (b) consumption habits would have to be altered before there was general acceptance of the practice.

Villagers are exceedingly busy throughout the year with their commercial farming. The only subsistence farming they do is the planting of plantains and bananas. Such trees, however, are intimately tied to commercial farming, since they serve as shade for the coffee trees. In addition they do not require much extra labor from the farmers. On the other hand the cultivation of vegetable gardens, beset as it seems to be with technological difficulties, would have involved some shifting away of labor from commercial farming to some enterprise for which they did not feel an urgent need. If the tending of vegetables had required little effort the situation would have been different. Many villagers stated as one of the reasons for not cultivating vegetables their "lack of time." (See Table 14). However, the author's assertion that the planting of vegetables would interfere with work habits is based mostly on observation. The investigator observed the round of life in agriculture and concluded that the planting and tending of vegetables, because of ants and other difficulties, would require a considerable amount of time which villagers would have to subtract from their commercial agriculture.

Table 14
 "Cultural" Reasons Given for Not Cultivating Gardens,
 San Juan Norte, 1953
 (Cultivators, and non-cultivators for a two-year period)

	Cultivators	Non-Cultivators	Total
Work habits and lack of time*	4	2	6
"No enthusiasm"	1	1	2
Not mentioned**	2	2	4
Total	7	5	12

*Includes statements that chicken-raising interfered with cultivation, since the construction of high fences would be necessary.

**A total of 4 persons failed to mention reasons of a "cultural" nature.

Investigation of habits of consumption revealed that boiled cabbage and tomatoes are consumed relatively often, but lettuce, carrots, beets and radishes were consumed only sporadically. The data available pointed out that the daily consumption of vegetables (as "vegetable" was previously defined) is not a norm in the local culture. By contrast, certain groups in the United States do not consider a meal to be complete without at least one vegetable.

Hypothesis III: This hypothesis is confirmed. The teacher attempted to cultivate a school vegetable garden, made an intensive campaign in the village and got the co-operation of many villagers for this task. Apparently because the soil had been in use for a long time and was presumably sterile, the school garden ended in almost total

failure. Several villagers were influenced by the teacher or some other agent and attempted to cultivate home gardens, yet practically all these attempts ended in failure. Seven in the sample of 12 attempted to cultivate vegetables in one form or another, but the attempts ended in failure. Table 15 below gives the technical reasons given by villagers to explain their failures.

Table 15
Technical Reasons Given for not Cultivating Gardens
San Juan Norte, 1953
(Cultivators and non-cultivators for a two-year period)

	Cultivators	Non-Cultivators	Total
Climatic conditions	1	--	1
Seeds or soil	2 (& 1)*	1**	3 (& 1)
Insects	3	1	4
Not mentioned***	1	3	4
Total	7	5	12

*Also mentioned insects, and is included in that category.

**Also mentioned insects.

***A total of 4 persons failed to mention reasons of a technical nature.

Hypothesis IV: This hypothesis is confirmed, though with qualification. On the whole, villagers had a negative image of the teacher as an "expert" in agriculture. (See pp. 83-84). However, the evidence available does not permit saying whether this carried over to the teacher's advice on the cultivation of vegetable gardens, a practice

with which he was identified by most villagers. In addition, other change agents, such as IAIAS extension personnel, whose advice was highly regarded by many villagers, had given advice on cultivation and consumption of vegetables.

Hypothesis V: There was not enough evidence to confirm or disprove this hypothesis. Some villagers claimed that they did not have the curiosidad (in native slang, the skill or patience) to cultivate home gardens. On the other hand, since most farmers have cultivated vegetables at one time or another, however sporadically, it would make one suspect that the cultivation of vegetables was not an item difficult for them to understand.

Hypothesis VI: This hypothesis was confirmed. The rural teacher was working in cooperation with a program developed at the IAIAS, whose basic orientation is to work through community leaders. The evidence available confirms this.⁴⁴ IAIAS extension students, who were part of this program, also worked on the problem. However, the precise method followed in using leadership structure and the resultant interrelations between the leaders and the followers were not investigated in the present study.

Hypothesis VII: This hypothesis was confirmed, but with qualification. The only villager who was cultivating a garden as a result of the school teachers efforts was one of the persons with most prestige in the village. (See #34

44. A former teacher of San Juan Norte and the one who initiated the "education" program in the village, was interviewed in San Jose. He also followed the same 'community orientation'.

Visiting Chart, and Table 11). However, knowledge that he had such a garden was not very common. For instance, only four in the sample of 12 knew that he had a garden. Of these four, two had not had a garden in the last two years. No one of the 12 mentioned this person as a source of influence.

A methodological problem is involved in the confirmation of this hypothesis. It is known, although this was not explored systematically, that the teacher attempted to work with adults in some cases and with the children in other cases. No data was collected which would throw light on the significance of prestige in the cultivation of gardens by children.

In summary, the evidence seems to indicate that villagers felt no need for the cultivation or consumption of vegetables. The cultivation of vegetables was handicapped by technological difficulties and proof that they could be cultivated was lacking -- in fact, the proof existed, but to the effect that they could not be cultivated. Technological difficulties would make their cultivation time-consuming and villagers would have to subtract this time from their commercial agriculture. The variables of "leadership," "prestige" and "image of the change agent," did not appear to be very significant.

3. POJ sugar cane: A spontaneous change in an agricultural practice

In the span of ten years San Juan Norte villagers

switched completely from the cultivation of a certain variety of sugar cane (Tahiti or Criolla) to another variety, Proefstation oost Java #2878, or "P.O.J." as it is called. From the villager's standpoint, this transformation was spontaneous in that no one in the village planned the change. It was thought that in this instance an analysis of this particular process of change, which is perhaps the most prevalent type of change in agricultural practices, would provide us with principles on processes of cultural change.

One villager consciously claimed that he was the originator of the idea and that this transformation actually changed the socio-economic structure of the village. He claimed that the weekly exodus of adult males to other uncultivated lands beyond the village, which was prevalent about ten years ago, ceased as a result of the arrival of the new variety of sugar cane.

In constructing the schedule (See Appendix) questions were formulated on the "what" and the "how" of the practice. Additional information was also requested which would supplement the "what" and the "how" and permit an answer to the "why" of the acceptance. To account for the acceptance of the practice the following hypotheses were set up:

The new variety of sugar cane was accepted because:

Hypothesis I: Villagers felt need for a new variety of sugar cane.

(Assumption IA: This need was directly conditioned by the closing down of uncultivated lands).

Hypothesis II: The new variety fitted well into their economic culture.

Hypothesis III: Villagers were provided with objective proof of the efficiency of the new variety.

Hypothesis IV: Prestige was an influential factor in the acceptance of the practice.

The "What": Sugar cane has been cultivated in San Juan Norte for many years. The variety grown in the immediate past was Tahiti or Criolla, but since the productivity of this variety was very low, villagers were not much concerned with it. Instead they devoted most of their time to coffee-growing or to milpa-making (maize farming) outside the San Juan Norte area.

The new variety which was introduced is more productive. It differs also in the degree of sugar content, being less sweet than the old variety. Since solid brown sugar is one of the basic items of local diet, the degree of sweetness most probably would have been an important variable to consider in the acceptance or rejection of the new practice if cane were still milled in local trapiches.⁴⁵ However, since for all practical purposes no molasses is manufactured in the village, this variable is of little importance.

45. Cf. A naoleto A podaca, "Introduction of Hybrid Corn to Spanish American Farmers in New Mexico," G. W. Spicer, Human Problems in Technological Change, New York Russell Sage Foundation, 1952, pp. 35-39.

The leaf of the new variety is less resistant to the weather than that of the old variety. This would be an important variable to consider if cane leaves were used extensively as roofing material. They are used, but not to the extent that the quality of the leaf would be important as a factor in acceptance.

The "How": The Ministry of Agriculture of Costa Rica introduced POJ into the country in 1929.⁴⁶ Advertisements appeared in newspapers and a campaign was made to induce the big commercial sugar cane growers to adopt it. The new variety was very much superior in production (it was claimed) to the old. Gradually it spread throughout the country.

About ten years ago a non-native villager, who had recently bought land and moved into the village, had plans for planting sugar cane. He had previously worked as a foreman on a large hacienda and was dissatisfied, he claimed, with the low productivity of the native variety of sugar cane. In a visit to another hacienda he noticed what he considered the productivity of the new variety, POJ. He became enthusiastic about it, and compared the soil on his farm with that on the hacienda where the new variety was growing. Upon finding out that the soils were similar he switched to the POJ variety. Production was excellent, as compared with the old variety, and he planted more. Word spread around of the high productivity of the new variety

46. National Ministry of Agriculture.

and soon some villagers came to him for seeds. This occurred about seven years previous to this study (it takes about two years for the cane to come to full production.)⁴⁷ The villagers started changing to the new variety slowly at first, but as the good results spread throughout the village, more villagers started cultivating it.⁴⁸ Now it is almost impossible to find Criolla seeds. Therefore, all villagers would be forced to cultivate POJ, regardless of their wishes.

Hypothesis I: This hypothesis was partially confirmed. Practically all villagers who were interviewed with respect to the practice complained about the low productivity of Criolla as compared to the new variety. Criolla cultivation had been at a very low ebb at the time of the appearance of POJ. Of the eight villagers interviewed, five actually complained about the former productivity of Criolla; two did not, but said that they realized the advantages of POJ upon seeing its increased productivity. One of these was a young farmer who had started cultivating cane within the last two years. On this point, from a conversation with agricultural technicians at the national Ministry of Agriculture, it was gathered that the Criolla variety had been at one time quite efficient, but had undergone marked degeneration throughout the Republic.

47. Personal interview with the originator of POJ in the village.

48. Cf. Bryce Ryan, "A Study in Technological Diffusion," Rural Sociology, 13, pp. 273-85.

A methodological question may be appropriate on this point. It was rather easy to prove the existence of a need in the case of chlordane. With POJ the case is different since the introduction of this variety started ten years ago, and there is always a danger that, because of the factors of recall and time, the informants may give inaccurate information.

Assumption Ia: Most farmers used to walk between two and three hours to lands beyond the village, where they spent weeks cultivating corn fields. The absentee owner would let them open up the lands for cultivation of corn and plant corn for three to four years. In turn the farmer would plant grass for the owner at the end of this period and move on to new land. The previously uncultivated land would eventually become pastureland. As land became cultivated, less of it became available for milpa-making. Five in the sample of eight used to go beyond the village for corn-growing.⁴⁹ The closing down of these lands and the realization by some villagers⁵⁰ of the un-economic nature of corn-growing, made some of them turn to new fields.

The assumption was posed in too loose a form to permit a clear-cut answer to it. It is believed, though, that with the closing of these lands villagers had to turn to their own lands as their primary source of income.

49. Two (non-native to the village) did not; the investigator failed to elicit information from the other.

50. One villager, himself a former migrant worker, claims that he started making "numbers" about the economic gains resulting from milpa-making, came to the conclusion that villagers were actually losing money in the deal, and campaigned against milpa-making.

Hypothesis II: This hypothesis is confirmed. The cultivation of sugar cane had started during the early period of the founding of the village. It had known periods of boom and depression, but it still constituted part of the villagers' practices in agriculture. It had never been entirely abandoned. Thus, four of the eight informants had worked in sugar cane cultivation in the village since "childhood;" two had worked beyond the village since their "young" days (the investigator failed to elicit clear-cut information from two.)

Hypothesis III: This hypothesis is confirmed. In the soils of San Juan Norte the increase of production was immediately visible and word of it spread around the village. Several villagers availed themselves of seed and started new fields on a small scale. The success of these trials confirmed, from the villager's point of view, the efficiency of the new variety. No direct campaign was made for the adoption of POJ; villagers saw positive results from other farmers and adopted the variety. Seven of the eight informants "saw the results" or became aware of the increased productivity of POJ. One villager commented:

"Nobody spoke to me about it. I simply saw that it was much better than Criolla; I became envious and tried it, with good results. Envy produces also good results."

Hypothesis IV: This hypothesis was posed in too loose a form to permit a clear-cut test of it. However the following information may be of interest and shed light on the factor of prestige. The first villager to plant POJ was a non-native farmer of high prestige. He was frequently visited by many villagers. There was not a bandwagon rush for the new variety until its "worth" was thoroughly proved from the villager's point of view. Therefore the introduction of POJ has been a slow process. Some of the farmers with most prestige did not take to the new variety until relatively recent times; on the contrary, farmers with less prestige took to the variety a long time ago. Only about one third of the cane growers actually claim to have gotten the idea for the new variety from the original source. The other two-thirds give as their source other neighboring large farms, other specific farmers in the village and that "it is the custom here."⁵¹

4. Summary and conclusions

A similar set of hypotheses was posed for each of the practices selected for intensive study. A comparative analysis of the three practices makes it possible to postulate certain generalizations.

Glordane: Three hypotheses were of crucial importance in determining its acceptance: (1) There was need for a more efficient formicide; (2) the practice fitted well into the culture, i.e., into the sets of habits that villagers had;

51. From an analysis of question 28 in the "Male Head" schedule.

(3) objective proof of the efficiency of chlordanes was furnished.

The need for a more efficient formicide motivated people first to attend meetings of the Venezuelans, and then to adopt chlordanes. Those who heard of chlordanes through the local auxiliary police agent were likewise motivated to accept the practice by the urgency of the need. It was possible to be convinced, through demonstration or experience, of the superiority of chlordanes over other formicides. The use of chlordanes fitted well into the villager's habits; they had long struggled against the ants.

It is probable that chlordanes would have been disseminated, although perhaps more slowly, even if the Venezuelans had not made their appearance in the village. This has happened in other villages which were not visited by IAIAS extension students.⁵²

Local leadership structure, prestige and image of the change agency seemed to be of secondary importance as variables in this case.

Home vegetable gardens: Three hypotheses were crucial in determining the rejection of vegetable gardens: (1) There was apparently no need for change (the data collected

52. Thus, in an informal talk with a farmer from the village of La Suiza, it was revealed that the use of Chlordane was common among farmers in that area. The Jefatura politica , it was claimed, had been responsible for its introduction.

partly substantiated this assertion); (2) the practice did not fit into two aspects of the culture; work habits (lack of time, etc.) and food habits. (3) there was no objective proof of the feasibility of local cultivation of gardens; in fact, for many villagers there was "objective proof" of the unfeasibility of cultivating gardens.

Villagers felt no urgent need to consume vegetables and therefore there was no motivation to produce them; their feeling was neutral -- they were not moved one way or another. Add to this the technological difficulties in objectively showing the feasibility of cultivating vegetables and it is easy to understand the difficulty of introducing or intensifying the practice. Villagers complained of the low quality of the soil, the ants, and the unfavorable climatic conditions. The cultural factors involved were equally important. Villagers did not define vegetable gardens as an economic practice; therefore gardens did not fit into their pattern of commercial farming. The time that they would have to devote to the gardens would have interfered with other agricultural pursuits. There was also the matter of diet. Villagers have not been brought up with the knowledge that vegetables are an important source of vitamins; that they are healthful, basic foods. They have been brought up on an almost steady diet of rice, beans, tortillas and aguadulce, and for these they have developed a deep attachment -- a fact that makes it very hard to substitute other foods. In other cultures

(and this seems to be true of many sub-cultures of the United States), variety in food seems to be the pattern; In San Juan Norte the pattern is more one of constancy.

Local leadership, prestige and image of change agents seemed to be of little consequence as variables in the case of vegetable gardens.

POJ Sugar Cane: Three hypotheses were of crucial importance in the acceptance of POJ sugar cane: (1) Need for a more productive variety of sugar cane; (2) a proper cultural background for the practice in that farmers were cultivating sugar cane at the time of the attempted introduction; (3) objective proof of the higher productivity of the new variety.

It follows from the above discussion that three basic conditions were of crucial importance in the acceptance or rejection of the practices: (1) Urgency or prevalence of a need (2) fitness of the practice into the culture; (3) objective proof of the efficiency of the practice (from the villager's point of view.)

As it was pointed out on page 113, two major assumptions were made with respect to the process involved in accepting or rejecting a practice. The relevance of the first assumption, viz., the complex nature of a practice, was illustrated through the three practices which were analyzed. Thus, the planting of vegetables goes beyond the simple task of seeding the soil and involves, among other factors, attitudes toward food, type of farming, etc.

With respect to the second assumption, viz., the functional unity of society (see p. 113), the evidence available points out that so far the successful introduction of chlordane or POJ sugar cane has not had any disturbing effects either for the economy or for other areas of the culture; that is, the practice has not had any dysfunctional effects for the system. However, the relative shortness of time in which the practices have been in operation (this is more so in the case of chlordane) does not permit a categorical statement on this point. In the case of the rejection of vegetable gardens there was no evidence that this was due to reaction from areas such as religion, family organization, etc. Note that the focus here is upon the practices and not upon the effect that they may have on the total social system.

The functional unity of a society may therefore be assumed for initial empirical purposes, but the validity of this assumption, in a specific case, should itself be the subject of empirical investigation. Thus, it may be that certain items (e.g., new practices) do not disturb certain areas (at least over a short time), and these areas are in turn of no consequence for the adoption or rejection of the item. Thus, religion was of no consequence for either the introduction or the rejection of the three practices which were analyzed.

D. Theoretical conclusions

In the preceding sections an analysis was made of a process of cultural change. As points of focus for such analysis, selected practices were chosen from the fields of agriculture and health-nutrition. It was thought that by so doing the analysis would be simplified. By cultural change was meant change in the "way of life" of a group, i.e., in the ways of perception, feeling, and acting of that group.

No claim is made here of discovering new facts or deriving new principles from facts already known. Many of the assertions which will be made are regarded as truths by many people. The aim is only to give further empirical confirmation of these "truths." The principles which are stated below have already been stated by others, although in a slightly different context;⁵³ here an attempt has been made to reinterpret them. It is expected that the assertions will be of importance, however slight, to a general theory of cultural change.

53. See for example, R. Linton's Acculturation in seven American Indian Tribes, pp. 486.

"...new things are borrowed on the basis of of their utility, compatibility with pre-existing culture patterns and prestige association..."

See also E. W. Spicer's Human Problems in Technological Change, p. 292.

"...people do not vary their customary behavior unless they feel some need which existing ways do not satisfy."

A very general formula on a specific aspect of change follows from the analysis which was made in the preceding chapter: in the fields of agriculture, health and nutrition (other things being equal), an item or practice will be accepted by a group so long as a need is felt for it; it fits into the culture of the group and there is objective proof of its workability.

FELT NEED & PROPER CULTURAL BACKGROUND & OBJECTIVE PROOF
OF WORKABILITY = ACCEPTANCE OF THE ITEM

On the basis of the experience at San Juan Norte it was found that the three conditions stated above were crucial variables in the acceptance or rejection of a practice. Other variables, cited below, were found to be of lesser importance:

- a. the sponsor of the item
- b. the image the group had of him
- c. the "method" used in the attempt at change
- d. the social status of the innovators in the group
- e. the position of the innovator in the leadership structure of the group

It is realized that a special set of conditions holds for San Juan Norte. Thus, practically all village heads of family are small property owners; practically everyone is a kin to everyone else; there is little, if any social class differentials; there is an absence of factions; it is a very religious community; none of the sponsors of change had a decidedly negative image. This special set of

conditions may have been influential in determining the crucial or non-crucial nature of variables in the process of change. It is hoped that these tentative findings be submitted to further empirical test in other cultures to clarify further what is crucial and what is not in bringing about cultural change.

However, it seems logical to assume that those variables which were not crucial (image of the change agent, the "method" used by him, and the prestige and leadership positions of the innovator) were important as accelerators of cultural change in the cases in which change occurred. Thus, it is believed that the practice of using chlordane would have made its appearance and disseminated universally throughout San Juan Norte, regardless of the work of the Venezuelan extension students. However, their activity accelerated the speed of acceptance of the practice. Further research should throw light on the role played in cultural change by these variables. On this account, care should be taken to include in any research design variables of a psychological nature, a cultural nature and a structural nature.

By variables of a psychological nature are meant items such as motivations of individuals in change situations, needs, personality factors in the acceptance or rejection of change, age and so forth.

Variables of a cultural nature refer to such items as the value orientation -- the ethos -- of the culture, the

ends of the particular facet of culture in which the attempt at change is being made and the ends of the practice that is being introduced. Also included in this category are items such as the familial, the economic and the religious organizations, that is, the systems of obligation-relations in these spheres. In describing family organization, for example, one should go beyond mere description of the system and include the meanings that the several items have in the system. Thus, it is not only a question of who is cousin to whom, but also of the meaning of being a cousin in the particular society in question. This point will also be touched upon below.

Variables of a structural nature refer to such items as the power structure of the society, the leadership and prestige structures and the economic class structure. A distinction should be made between two types of structural variables -- those which refer to attributes of the whole structure which is under discussion (e.g., the "classless" nature of a society), and those attributes of a position in the larger structure (e.g., what does it mean to be a leader, or a powerful man, or an innovator in the society.) An example may help visualize the relevance of positional variables in a research design. It is conceivable that the position of "innovator" might be low in the scale of values of a hypothetical society. If an individual who occupied a very prestigious position in this hypothetical society were to assume the role of "innovator" the assets which prestige would have (assuming that he did) for

introducing a practice might be lessened considerably. If one were to generalize and say that prestige was of no consequence for the introduction of a practice, the generalization should be qualified with some comment on the meaning of "innovator" in the society.

In answering the question of what it means to occupy such a position (that of an innovator), two sets of data are relevant: (a) cultural consequences, or expectations, of the position. This in itself might be considered a cultural variable, since it refers to standardized expectations; (b) the non-prescribed consequences of the position -- what the occupants of the position do, by virtue of their occupancy of that position, which is not culturally prescribed.⁵⁴

There is another point of interest which could be further investigated in future studies on cultural change. Much has been said about the importance of lines of communication in the introduction of change. In the setting up of hypotheses, "lines of communication" have usually been taken as "given"; as the independent variables. It might be fruitful to consider them as dependent variables and therefore make them the center of investigation. It has been observed in this study that a certain type of information is disseminated rapidly, while another is retarded -- yet the "lines of communication" may be the same in both cases.

54. The writer acknowledges the influence of Robert K. Merton in this discussion of the different types of variables.

For example, the use of chlordane is almost universal in the village. On the other hand, although emphasis has been given to the cultivation of vegetable gardens, a sizable group claims not to have heard about the re-emphasis on the cultivation of vegetables. (out of the 46 male heads of families, 11 claimed not to have heard about it). This suggests that in some cases it is not the channel, but the item or practice itself which is the important variable.

A final word on the general formula which was posed at the beginning of this section. As it stands, in its rustic form, it is perhaps not of much value as a theoretical tool. However, it is believed that with some refinements it could be made useful. The formula stresses the relationship among different types of variables in some processes of cultural change. It should bring to the attention of the investigator the "wholeness" of a situation -- the close interrelationship between variables of a psychological, socio-cultural and technological nature.

The part of the formula that deals with needs begs for a thorough respecification. "Needs" are hard to demonstrate, as was shown in the case of vegetable gardens, and the investigator may run the risk of imputing them in situations when actually they are absent. Needs were equated, in the present study, to "conscious dissatisfaction" on the part of the people. The concept of "dissatisfaction" is also a crude one which should be conceptually analysed. It was found out that a knowledge of alternatives was present

in those cases in which a need had existed for a new item. Is knowledge of alternatives a necessary condition for the presence of needs? What is the relationship between a need and one's position in the social structure? The close relationship which seems to exist between the creating of needs and the changing of attitudes could prove to be a fertile field for investigation.

The role that culture plays in the acceptance or rejection of items is also of crucial importance. "Proper cultural background" is too loose an expression to be much meaning. What is it that constitutes "proper cultural background"? When does a practice "fit" and when doesn't it.

It is also conceivable that two items may have been in a culture for equal lengths of time and yet it may be relatively easy to change the habits associated with one but not those of the other. What are some characteristics of different sets of norms which make it difficult or easy to change them? What are the relationships between the cultural ends of the society and the acceptance of specific items?

The role that technology plays in the acceptance or rejection of an item is equally important. Often the "objective proof" the group demands before it accepts the item is not forthcoming for no other reason than that of the technological impossibility of doing so.

In the cases that were discussed it was a relatively simple matter to show the superior nature, economically, of chlordan and of POJ sugar cane. If technologically it

were possible for vegetables to grow, it would also have been a simple matter for a technician to demonstrate "objective proof of workability." But how does one prove objectively that consuming vegetables is better than not consuming them? It is perhaps true that those items which satisfy immediate ends are better suited for demonstration of objective proof, and are therefore more acceptable, whereas those items which are only instrumental ends for another ultimate end are less acceptable. Thus, it might be easier to introduce the practice of consuming vegetables on a daily basis if people could accept them for the immediate, ultimate end of taste, rather than if people had to accept them because they would be instrumental in attaining the ultimate end of good health.

Another problem should be raised. What is it that constitutes "objective proof" of effectiveness? Is perception of "objective proof" a function of position in social structure? It may very well be that what constitutes "objective proof" for one group will not be so for another. This may have relevance for action programs.

The relationship that exists between "needs", "culture", and "objective proof" should be systematically explored. If one is allowed to compare American culture (in global terms) with, say, Costa Rican culture (also in global terms) it may not be far from the truth to say that in the former, "culture" is more receptive to change; that in many areas "needs" are more easily created and that "objective proof" is of a less rigid nature.

It was not possible in the present study to explore the influence of all the variables enumerated above in the acceptance or rejection of the practices in question. Thus the roles of psychology and technology were touched upon only lightly. The study should make obvious the need and the possibility for a close working relationship of the social psychologist, the sociologist, the social anthropologist and technician in the bringing about of change.

The formula -- or model -- was the result of field investigation in San Juan Norte where a special set of conditions must be considered. Therefore, no claim is made that this formula holds for all situations under all conditions. It may be safe to say though that it probably will hold in villages or other social systems which are similar in nature to San Juan Norte and in which people have a similar relationship to change agents as did the villagers of San Juan Norte. As a research tool the formula could prove of value, provided that its limitations are explicitly recognized.

E. Practical conclusions

In attempting to introduce change, good intentions are not enough. The change agent should bear in mind two rules: (1) a successful introduction of a practice is best accomplished with a clear head, rather than with the heart alone; (2) a successful introduction of a practice does not insure that the practice will fulfill its intended purpose. The successful introduction of chlordane did not ensure the extermination of ants. Failure to consider technological

variables may cause failure in achieving an intended goal. On the first rule, one is reminded of a passage, with reference to physicians, in Alexander Leighton's Human Relations in a Changing World:... "Don't think them heartless In them pity as an emotion ending in itself or at best in tears and a long-drawn breath, lessens, while pity as a motive is quickened, gains power and purpose."⁵⁵ Many attempts at change fail because the agent of change unconsciously lets his heart rule his reason. This may be so in many cases of social scientists or educators who act as change agents.⁵⁶

In the last section, on "Theoretical Conclusions," a formula was set up with reference to cultural change: "An item or practice will be accepted by a group so long as need is felt for it, it fits well into the culture of the group and there is objective proof of its workability. Any time that a practice is to be introduced into a community, the change agent should ask: Does the community feel a need for it?⁵⁷ Does it fit into their culture? Can I

55. Alexander Leighton's Human Relations in a Changing World, New York: E.P. Dutton, 1949. pp. 215, quoting from John Brown's Rab.

56. In the past, "education" programs of IAIAS which attempted to use the teacher as a change agent have worked under the assumption--at times explicit-- that he is an idealist," an apostle for change. The matter of salary and physical comfort have, in the writer's opinion, been relegated to the background. The impression is that if these matters had been given due consideration, the effectiveness of the teacher as a change agent would have been improved.

57. It is of course realized that a community is composed of groups and that the need may not be felt by all the groups with the same degree of urgency. It may not even be felt as a need by some groups.

prove objectively that the practice "works"? If the practice fulfills these three conditions, then it is perhaps safe to say that the change agent faces a less difficult task than if it did not. If the practice fails to satisfy the three conditions, then special methods must be developed to insure its introduction. A crucial problem in many attempts at change is the absence of a need for an item. There are no shortcuts to the development of needs; sound experimentation is the prescription. It would perhaps be desirable though to try new methods and to rely less on methods which have failed elsewhere.⁵⁸ Very often one sees a change agent attempting to create needs through the lecture method. The assumption is made that people could be talked into accepting an item. To expect rural people to change their views, under these circumstances, is perhaps to indulge in wishful thinking.

Sometimes there may be a need for the item but the remedy is so complicated, from the villager's point of view, as to insure its rejection. It may be worthwhile, in the case of certain practices (mainly in health and nutrition), to work with what the local culture has available rather than to attempt to superimpose new ideas on the group. A practice which fits into the local culture might accomplish the same ends -- and require less effort on the part of the

58. As a rule, and for whatever reasons, "lectures" seem not to be effective in changing attitudes. (See R. M. Williams, The Reduction of Inter-group Tensions, Social Science Research Council Bulletin No. 57, p. 24, passim.

change agent -- than one which did not.

It is seldom profitable to expect rural people to accept practices which, from their viewpoint, have not been objectively proved to be superior to what they have.

A great deal of emphasis has been put on the factor of "objective proof" of the effectiveness of a practice. It is felt that the fulfillment of this condition is of crucial importance in any attempt at change undertaken in "underdeveloped" areas. Many of the inhabitants of these areas cannot gamble with their economic security by adopting practices which may not have been thoroughly tested. As one informant put it:

"If these varieties are so good, why have not the big coffee growers, who can afford to experiment, taken to them?"

On the basis of the field study in San Juan Norte, it appears that if the item satisfies the three conditions, the task of the change agent is simplified. This should not be interpreted to mean that universally there are only these three basic conditions which determine the acceptance of a practice. Until more is known about the process of change certain sociological recommendations should not be dispensed with. Thus the image that the community has of the change agent and the image that he in turn has of the community -- in so far as it conditions his behavior toward it -- may be of importance. The introduction of change may also be facilitated by making use of key people, the

leaders, in the community. The status of innovators may be of consequence for the more rapid introduction of change.

If there is concern for the rapidity with which the practice is introduced, then "method" becomes important regardless of whether the three conditions of need, culture and proof are satisfied. This was clearly shown in the case of chlordane.

A few hints to change agents: The investigation undertaken in San Juan Norte makes possible a few recommendations for change agents, especially for the agricultural or health-nutrition extension agents who work in Spanish America. Others may have relevance for the social scientist who goes to a Spanish-American community. No attempt is made to classify these "guidelines" and specify who can profit most by them.

(a) Many villagers regard agricultural extension agents as "theory" men who have little practice. The extension agents' own behavior may re-inforce this image. "Hit and run" attempts at introducing practices usually fail because the agent forgets about the "objective proof" of the practice. In a similar manner, "hit and run" explanations, if followed, are always subject to misinterpretation, a fact which sometimes results in undesirable consequences. These consequences may reinforce the villagers' view that the extension agent has little "practice". A "know all" attitude on the part of the extension agent may give rise to unsound advice; this, in turn, will reinforce

the image that villagers may have of him as an impractical man.

(b) Many villagers feel a big chasm between themselves and the "learned" change agent. This chasm makes for difficulty in communication. They admire two qualities in "learned" outsiders who visit them: sincerity and humility. An attitude of intolerance toward native habits may be interpreted by them as being far from their esteemed quality of humility. The use of local language, as far as this is possible, may tend to lessen the gap between the change agent and the group he is supposed to serve.

(c) It may be worthwhile for the agent attempting change to rely more on experimentation than on the imposition of a practice. Although no systematic study was made of attitudes toward experimentation, the impression is that villagers would like to try out things before they accept them. If villagers discover for themselves, with the aid of the agent, the utility of an item, it is probable that they will accept it more readily. It is also very probable that they will weave this new item into already existing cultural patterns. Consequently, the practice will be more firmly rooted and therefore more lasting.

(d) The antagonism of local leaders to a program of change may insure its failure. A good rule of thumb to follow is to inform community leaders about one's purpose,

and to try to enlist these leaders in one's favor.⁵⁹ Care should be exerted that there is real communication with villagers. Working with the whole community perhaps makes for better results in change programs. There is a good possibility that the more leaders that are contacted the larger the number of villagers that will be reached.

(e) Religion is one of the basic securities of most villagers. Any practice which is defined by them as anti-religious might be condemned to rejection. Enlisting the priest's aid, particularly in health, might help in the introduction of a practice.

(f) It is open to doubt how efficient audio-visual methods are in the attempts at introducing change. Villagers read little. The change agent should adopt a skeptical attitude with respect to such methods -- he should know their limitation. Further investigation is needed before a definite answer is given on the efficiency of audio-visual aids in Spanish American villages.

The possibilities of using the rural teacher as a change agent: The villagers' conception of the teacher is that of a person whose task is to teach reading, writing and arithmetic. In spite of the fact that there is no conception of him as a change agent, they consider him as a

59. A fairly quick method of finding out the leadership structure of a village, which has been used in the Turrialba area of C.R., is to interview randomly selected samples of village male heads of family and ask them about the key people in the village. See Appendix, Schedule for the Male Head of Family, Question number 4.

"learned" man and would be willing to follow his advice in certain general areas such as health and nutrition. There is skepticism about following his advice on agricultural matters. This makes one suspect that the traditional role of the teacher can be modified to include the education of the community in health and nutrition practices, among others.

If the teacher were to attempt to introduce new practices, he, like any other change agent, should check the practice against the formula which was stated on p.156. If the practice fulfills the three conditions, then it might be less hard for him to bring about the change. If the practice does not satisfy the three conditions, then the task is hard and the "how" of introduction becomes all-important. The image that the community has of him, how he tackles the problem (his "method"), may be of importance.

The above discussion is based on the assumption that the teacher acts directly as a change agent. There is a new orientation in the Department of Economics and Rural Life of IAIAS which conceives the teacher to be not directly a change agent, but rather a catalyst for changes which the community itself feels that they want. Since in this case, felt "needs" are all-important, the task the teacher would face would presumably be easier. However, there is a crucial problem: Who is to find out the "needs" of the community? The teacher, overworked as he is, may be

in no position to undertake such a job even assuming he were capable. The last assumption, it seems, is not warranted since it is perhaps true that the discovery of needs requires special training.

Under the assumption that the teacher act as a catalytic agent in bringing about change, it follows that the actual change agents would be outsiders, from beyond the community. One of the main tasks of the teacher would therefore be to bridge the gap between the village and the outside world -- the nearest city or the national government, whichever is relevant in bringing about change. In this hypothetical position there would be two alternative roles for the teacher: Either he would be intimately connected with the change agency and merely follow the plans formulated, or he would have complete autonomy, in which case he would rely more or less on his own resources. In the latter case there would be a need for a highly trained teacher.

All the above discussion hinges on the assumption that the rural teacher has ample time beyond his classroom work which would permit him to do efficient community work. The situation in Costa Rica, and possibly in the rest of Latin America, points toward the fallacy of such an assumption. The fact is that the teachers are highly overworked by whatever standards one chooses to use. They are underpaid and face undue hardships in the matter of living quarters and food. It is perhaps true that an effective teacher could

wield some influence among villagers in matters pertaining to health and nutrition, but physical hardships, overwork and underpay do not make for efficient personnel; under these conditions the best does not flow to the profession.

It is perhaps safe to say that materialistic matters of money, work and physical comfort have to be taken into consideration before one considers the idealistic plans for "lifting" the well-being of the rural village through the medium of the teacher.

V. GENERAL SUMMARY AND CONCLUSIONS

A. Summary

A general problem was posed at the beginning of this report: "Why do people accept or resist changes in agriculture, health and nutrition." To make this problem more amenable to empirical investigation, it was subdivided into several sub-problems. In the paragraphs that follow, these sub-problems are restated and the findings with respect to each are given in a summarized form.

Subproblem I: An ethnographic report of San Juan Norte

San Juan Norte is a village in the Turrialba area of Costa Rica, located at an altitude of 4000 feet above sea level. It exhibits features of both the "scattered" and the "line" types of village. The present population numbers 336 and is of Caucasian origin. The sex ratio is 108.7.

Most of the villagers are small property owners. Over half the number of farms have a size of less than nine acres. Very few families are landless. The main crops are

coffee and sugar cane. Limited cattle-raising is practiced.

Close kinship bonds tie-in villager with villager. The present inhabitants are the descendants of two extended families who migrated to the village about 80 years ago. Close kinship ties and a near-universal property ownership have contributed to make of the village an almost "classless" society.

The influence of Roman Catholicism is strongly felt in areas other than religion. Thus, religion and village recreation are, for practical purposes, synonymous.

As is the case in Costa Rica, the literacy rate of the village is high. The village has had a school for the last forty years.

Subproblem 2: The changes, if any, that had occurred in the last two years, in selected practices in agriculture, health and nutrition

Little change occurred in those coffee growing practices which were observed. Some new varieties were being cultivated but in negligible amounts. There does not appear to be a trend toward general acceptance of these new varieties. Many farmers reported that some practices in coffee growing, recommended by the local agricultural extension office, have been common knowledge and have been practiced by them for a long time.

The same situation holds for practices in the cultivation of sugar cane. Some new varieties have appeared in these last two years, but their cultivation has been

negligible. As with coffee growing, there does not appear to be a trend toward general acceptance of these new varieties; many farmers claimed that they have long followed certain practices recommended by extension agents.

No change appears to have taken place in the cultivation of pastures or in cattle raising. Some cattle were vaccinated when the IAIAS extension students were in the village, but the habit of vaccinating livestock does not exist.

Leaf-cutting ants have beset villagers for many years. A new insecticide, chlordane, appeared in the village and was completely accepted by villagers.

It has not been possible to ascertain accurately the probable changes which have occurred in health practices. Women still bear their children in the home. Little use is made of the hospital or of the public health unit. The use of chlordane in the home has eliminated most household pests such as fleas and ants. Although there has been "campaigning" for the boiling of drinking water, only a few housewives have taken to the practice.

As far as it has been possible to ascertain, no new practices have been adopted in the field of nutrition.

Subproblem 3: The avenues, formal or informal, through which these changes were attempted or accomplished

In agriculture, the agency with which farmers have been most in contact is IAIAS, through its extension students. It was partly responsible for the introduction of chlordane.

It stressed the cultivation of vegetable gardens. Next in importance comes STICA. The contact of this agency with farmers has been, and is, very sporadic. The influence that it has on farmers is small. STICA is responsible for the introduction of several new varieties of coffee. No one mentioned the Ministry of Agriculture as an avenue of change, either directly through its agents or through written material (in the form of pamphlets), or indirectly, through the agricultural section in some local newspaper. The newspaper and the radio, as avenues for change in agriculture, are negligible. The influence of the local Bank, which loans money to farmers, does not appear to have importance.

In health and nutrition, IAIAS, through its extension personnel and some of its research personnel of the past, is the agency with which housewives are most acquainted. IAIAS people stressed the need for drinking boiled water and for consuming green vegetables. The teacher is the individual who has attempted to introduce most change in health-nutrition practices. The local hospital and public health unit appear to have exerted little, if any, influence. Local newspapers and the radio seem to play no significant role as avenues for change.

Subproblem 4: The images villagers had of agents or agencies of change

Four change agencies, STICA, IAIAS, the local Public Health Unit, and local hospital were discussed (see pps. 102-103.)

It was found that there was no "community" image of STICA since this agency had worked little in the village. Among the few who had used the services of the agency there were mixed feelings: some did not have much faith in the agency; some did.

The IAIAS was better known by villagers, and was highly regarded. The impression is that the agency is judged more by the personal behavior of its field representatives than by its "successes" or "failures." This is however a matter for empirical investigation.

It is difficult to conceive of a village image of either the local Public Health Unit or the hospital. About one-third of the informants were opinionless about the services which are performed by the health unit; one-half were opinionless about the hospital.

Subproblem 5: An analysis of a process of cultural change, with specific practices as points of focus

Three practices were selected for intensive study. Two of these -- the use of chlordane formicide and the cultivation of POJ sugar cane -- were accepted completely by farmers; one, the cultivation of home vegetable gardens, was almost totally rejected by farmers.

The theoretical orientation which follows guided the analysis. The process of acceptance or rejection of a practice can be broken down into the "what," the "how" and the "why" of the practice. Under "what" is classified all information relevant to (a) the old practice (if such was

had; (b) the new practice, as it was presented by the change agent, and (c) the resultant practice, if it was accepted. Under "how" is classified all information on "method" used in bringing about the change. The "why" tries to explain the success or the failure of the attempt; it includes hypotheses explaining the process of change.

It was found that chlordan was accepted because there was a need for it, it fitted well into local culture and villagers were provided with objective proof of its efficacy. The same held for POJ sugar cane. Vegetable gardens, on the other hand, were rejected because no need was felt for them, they did not fit into two aspects of village culture (work habits, food habits) and there was no objective proof that they could be grown in the village.

Felt need, "fitness" into culture and objective proof of the efficacy of the practice were found to be crucial variables which would determine the acceptance or rejection of a practice.

Subproblem 6: Some theoretical principles concerning cultural change

One general theoretical proposition emerged from the study: For an item to be accepted by people, it should satisfy three basic conditions:

1. A need for it must be felt by the group
2. It must "fit" into the culture
3. There must be objective proof about its efficiency and its workability (as compared to another item), from the group's viewpoint.

Needs are equated to a "conscious" dissatisfaction. It is assumed that such a state is conducive to change. "Fitting" or not "fitting" into a culture is a matter of degree. An item (an item is taken to mean an object and the habits associated with it) "fits" when the set of habits associated with it is congruous to the set of habits that it tries to substitute or modify; the more it fits, the easier its adoption; the less it fits, the harder its adoption. Ideal cultural "fitness" would not disturb either the social or the cultural structure.

By "objective proof of effectiveness" is meant that the group perceives the new item as superior to the one they possess. Workability implies that the group must be confident that their efforts will succeed.

Such variables as leadership, prestige, image of the change agent and "method" used in the attempt at change were not found to be significant in the particular cases studied. This does not gainsay the fact that they may be of crucial importance in other cases of attempted change, in villages or social systems which differ in organization; from San Juan Norte.

Subproblem 7: The possibilities of using the rural teacher as an agent of change in so-called under-developed areas

Villagers on the whole conceive of the teacher as a person whose main function is to teach the traditional subjects of reading, writing and arithmetic. Although they do not conceive of him as a change agent, they express willingness

to accept his advice in the areas of health and nutrition; they show skepticism, however, in accepting his advice in agriculture.

Teachers in the area of turrialba are overworked and underpaid and work under conditions which are not too pleasant physically. These conditions detract from the possibilities of making him an effective change agent.

B. Conclusions

This report may be called a study in cultural change. In the light of the discussion in the preceding pages, this statement should be qualified. It has been a study of a particular type of cultural change, that is, planned, voluntary change. Furthermore, the items of concern, the practices selected for analysis, constituted very simple practices in agriculture. Thus, at no time did the change agents conceive of these practices as items which would have far-reaching consequences for the social system. In other words, the practices introduced were not of the same magnitude as, say, the introduction of a new land tenure system or a new type of machinery. One should note that in the case of San Juan Norte agriculture constitutes the most "rational" sphere of village culture and as such has less value connotations for hypothetical changes than changes affecting such spheres as religion, family organization, etc. In San Juan Norte agriculture is a way of life, but it is also a way of making a living, of making money. Therefore, the study can be better identified as an analysis of planned, voluntary change in a "rational"

segment of culture.

The community which served as the ground for the study in cultural change was the village of San Juan Norte. It is not claimed that life in this village is representative of life in Costa Rica, or for that matter in Latin America. The opposite might be the case. San Juan Norte is a strongly homogeneous society of peasants -- small property-owners -- in which class divisions are almost non-existent. At least in the economic sphere of village life, no forces have been discovered which are antagonistic to change. No villager, as far as it could be ascertained, looked on "change" as manipulation from outside agencies.

The village was chosen because it represented a distinct type of village -- the small proprietor village -- in the Turrialba area. There was interest in comparing "cultural change" in this type of village with cultural change in another distinct type of village, the large hacienda, which is perhaps more representative of village communities throughout Latin America.

San Juan Norte was not chosen because of the homogeneity of population, the absence of factions or other factors discovered after the village had been studied. However, it was perhaps fortunate that this set of conditions existed; it made the analysis much easier.

On the basis of a study of a particular type of cultural change in a special type of community, a proposition of theoretical and (perhaps) practical interest was

formulated. Three basic conditions should exist for an item to be accepted: (a) a need for it must be felt by the people; (b) it must fit into their culture; (c) the people must have proof of its workability or effectiveness.

The proposition by no means belittles the importance which such variables as leadership, prestige, power, image of the change agent, etc. have for cultural change. These variables were of lesser significance in San Juan Norte, but that may have been a result of the special nature of the society in question.

It may be safe to say, tentatively, that the proposition has validity when applied to small social systems similar in nature to San Juan Norte. Better still, it has applicability to groups in which the internal structure produces minimal negative reactions to innovations. It may be meaningless to apply the proposition to larger social systems such as towns or cities, since these systems, as a whole, are stratified and each stratum within the larger system would have its own culture. The "needs" of one stratum might vary from those in another; what would be the objective proof for one might not be so for another. The proposition will be of more use when the item under analysis is related to a "rational" sphere of the culture such as the economic sphere where there is less value-involvement.

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PROYECTO DE EVALUACION DE PROGRAMA SOBRE
EL DESARROLLO DE LA COMUNIDAD RURAL

Cuestionario Preliminar para el Maestro

Para ser puesto a funcionar únicamente con aquellos maestros que han recibido el o los cursillos y que posiblemente sean entrevistados en el futuro.

Fecha _____

Entrevistador _____

Nombre del Maestro _____

Lugar _____

Cuánto tiempo hace que vive en este lugar? _____

De mes _____ año _____ a mes _____ año _____

I. Qué prácticas agrícolas ha tratado Ud. de introducir en forma planeada y constante en este lugar, sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

I. Qué prácticas pecuarias (crianza de animales domésticos) ha tratado Ud. de introducir en forma planeada y constante en este lugar, sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

III. Qué prácticas en alimentación ha tratado Ud. de introducir en forma planeada y constante en este lugar, sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

IV. Qué prácticas en salud ha tratado Ud. de introducir en forma planeada y constante en este lugar, sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

V. Qué prácticas relacionadas con habitación ha tratado Ud. de introducir en forma planeada y constante en este lugar, sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

VI. Qué prácticas relacionadas con el vestido ha tratado Ud. de introducir en forma planeada y constante en este lugar sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

VII. Qué cambios en la organización de esta comunidad ha tratado Ud. de introducir en forma planeada y constante en este lugar sin tomar en cuenta hayan sido éxito o fracaso?

A. _____

B. _____

C. _____

D. _____

Nota para el enumerador

En cada una de las áreas (agricultura, salud, nutrición, etc.) el maestro ha nombrado ciertas prácticas que él ha tratado de introducir en forma planeada y constante. Para cada una de las áreas hágale al maestro la siguiente pregunta:

De las prácticas que Ud. nombró (en cuanto a, por ejemplo: salud,) en cuáles considera Ud. que tuvo éxito y en cuáles fracaso?

Marque arriba, en la pregunta correspondiente, a la izquierda de cada letra, E para éxito y F para fracaso.

Antonio Arce
16 Octubre 1952
AERL- 133-52

Instituto Interamericano de Ciencias Agrícolas
Departamento de Economía y Bienestar Rural
Turrialba, Costa Rica

PROGRAMA SOBRE EL DESARROLLO DE LA COMUNIDAD RURAL
PROYECTO DE EVALUACION

CUESTIONARIO PARA EL JEFE DE FAMILIA

Enumerador _____ Fecha _____

Lugar _____

Editado por: _____ Fecha _____

Codificado por: _____ Fecha _____

Nombre del Jefe de la Familia _____

Nombre del Informante _____

Relación con el Jefe _____

1. Datos sobre Población

(a) Nombres Personas que viven en la casa	(b) Parentesco Jefe	(c) Sexo	(d) Edad a	(e) Estado Civil	(f) Escuela Toda- vía	(g) Grado último	(h) Ocupación
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
* Nota: Si hay niños de menos de 1 año, diga meses, y fecha de nacimiento							

2. Dónde trabajó la mayor parte del tiempo el año pasado? _____

3. Personas de la familia ausentes

(a) Nombre persona ausente	(b) Parentesco Jefe	(c) Sexo	(d) Edad	(e) Dónde está	(f) Cuando se fué mes año	(g) Por qué se fué
1.						
2						
3						
4						

4. Cuánto tiempo ha vivido en este lugar? _____

5. Dónde nació usted? _____

6. Ha vivido alguna vez en un Centro Urbano? Si _____ No _____

7. Dónde? _____

8. Qué edad tenía entonces? _____

9. Por cuánto tiempo? _____

10. Lugares visitados fuera del caserío en el mes pasado, medio de transporte, y tiempo

(a) Lugar	(b) No. veces	(c) Propósitos
1		
2		
3		
4		
5		

CAFE

16. Hace Ud. almácigo de café? Si _____ No _____

Si, si

a. Selecciona semilla? Si _____ No _____

Si, si,

b. Cuánto tiempo hace que la selecciona? _____

c. De dónde tomó la idea? _____

Si, no,

d. Ha oído hablar de la importancia de seleccionar semilla?

Si _____ No _____

e. A quién o quiénes? _____

17. Ha introducido nuevas variedades? Si _____ No _____

Si, si

a. Cuánto tiempo hace que las introdujo? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de la importancia de introducir nuevas variedades? Si _____ No _____

d. A quién o a quiénes? _____

18. Hace Ud. siembras al contorno en sus cultivos de café? Si _____
No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

d. A quién o a quiénes? _____

9. Practica usted el sistema de terrazas? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

d. A quién o a quiénes? _____

10. Usa Ud. abono orgánico en sus cultivos de café? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

d. A quién o a quiénes? _____

21. Usa Ud. abonos químicos en sus cultivos de café? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

d. A quién o a quiénes? _____

22. Prepara Ud. Composte? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

c. En qué cultivos lo usa? _____

Si, no,

d. Ha oído hablar de su importancia? Si _____ No _____

e. A quién o a quiénes? _____

23. Qué clase de sombra usa Ud. en el café? _____

a. Desde cuándo las usa Ud.? _____

b. De dónde tomó la idea? _____

c. Ha oído Ud. hablar sobre otra clase de sombra? Si _____ No _____

d. A quién o a quiénes? _____

24. Enfermedades e insectos más comunes en el cultivo del café

(a) Enfermedad	(b) Tratamiento	(c) Cuánto hace	(d) Origen de la idea
1			
2			
3			
4			
(e) Insectos	(f)	(g)	(h)
1			
2			
3			
4			

25. Usa Ud. algún sistema de drenaje en sus cafetales? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar sobre su importancia? Si _____ No _____

d. A quién o a quienes? _____

26. Poda Ud. el café? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

d. A quién o a quienes? _____

7. Otros cambios introducidos en el cultivo del café

(a) Cambios	(b) Cuándo	(c) Origen de la idea

AÑi

3. Ha introducido Ud. nuevas variedades de caña? Si _____ No _____

Si, si,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Si, no,

c. Ha oído hablar de su importancia? Si _____ No _____

- d. A quién o a quiénes? _____

9. Hace Ud. siembras al contorno en sus cultivos de caña? Si _____ No _____
Si, si,
- a. Cuánto tiempo hace? _____

- b. De dónde tomó la idea? _____

- Si, no,
- c. Ha oído hablar de su importancia? Si _____ No _____
- d. A quién o a quiénes? _____

10. Usa Ud. abono orgánico en sus cultivos de caña? Si _____ No _____
Si, si,
- a. Cuánto tiempo hace? _____

- b. De dónde tomó la idea? _____

- Si, no,
- c. Ha oído Ud. hablar de su importancia? Si _____ No _____
- d. A quién o a quiénes? _____

11. Usa Ud. abonos químicos en sus cultivos de caña? Si _____ No _____
Si, sí,
- a. Cuánto tiempo hace? _____

- b. De dónde tomó la idea? _____

- Si, No,
- c. Ha oído Ud. hablar de su importancia? Si _____ No _____
- d. A quién o a quiénes? _____

2. Enfermedades e insectos más comunes en el cultivo de la caña

(a) Enfermedad	(b) Tratamiento	(c) Cuánto hace	(d) Orígon de la idea
(e) Insectos	(f)	(g)	(h)

3. Usa Ud. algún sistema de drenaje (zanjas, desagüe, etc) en sus cañales? Sí _____ No _____

Sí, sí,

a. Cuánto tiempo hace? _____

b. De dónde tomó la idea? _____

Sí, no,

c. Ha oído hablar sobre su importancia? Sí _____ No _____

d. A quién o a quiénes? _____

4. Otros cambios introducidos en el cultivo de la caña.

(a) Cambios	(b) Cuándo	(c) Origen de la idea

Cultivo _____ (Véase pag. 4 del Cuestionario sobre diferentes cultivos principales).

- a. Ha variado Ud. en alguna forma la manera de cultivar _____?
(Por cultivo se refiere a todo el proceso, desde la siembra hasta la cosecha). Si _____ No _____. Si es sí,

Variación Cuándo Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

- b. Si no ha variado en forma alguna la manera de cultivar _____, ha tenido conocimiento de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

Práctica	Origen	Por qué no la aceptó
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		

Cultivo _____ (Véase pag. 4 del Cuestionario sobre diferentes cultivos).

- a. Ha variado Ud. en alguna forma la manera de cultivar _____?
(Por cultivo se refiere a todo el proceso, desde la siembra hasta la cosecha). Si _____ No _____. Si es sí,

Variación Cuándo Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

b. Si no ha variado en forma alguna la manera de cultivar _____, ha tenido conocimiento de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

Práctica	Origen	Porqué no la aceptó
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

, Cultivo _____

a. Ha variado Ud. en alguna forma la manera de cultivar _____. Si _____ No _____. Si es sí,

Variación Cuándo Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

b. Si no ha variado en forma alguna la manera de cultivar _____, ha tenido conocimiento de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

7. Huerta casera

5. Tiene Ud. huerta casera? Si _____ No _____

Si, si,

a. Qué ha sembrado en ella en los últimos 6 meses?

1. Tomate _____
2. Zanahoria _____
3. Repollo _____
4. Vainica _____
5. Rabanito _____
6. Chile dulce _____
7. Remolacha _____
8. Ayote _____
9. _____
10. _____
11. _____

b. Cuando aproximadamente empezó a hacer una huerta casera?

1. _____
2. _____

c. De dónde cogió la idea? _____

Si, no,

d. Podría decirnos por qué no la tiene?

1. _____
2. _____
3. _____

e. Ha tenido algún conocimiento sobre la importancia de la huerta casera? Si _____ No _____

Si, si,

f. Como obtuvo ese conocimiento?

En caso de que se le presentara a Ud. algún problema en cuanto a agricultura (v.g., baja producción, enfermedad de las plantas, ect.) en su finca, parcela, ect., consultaría Ud. con alguien?

(a)
Con quiénes

(b)
Relación

(c)
Lugar

PRACTICAS PECUARIAS

37. Número de Animales

(a) Clase	(b) Número	(c) Uso
Vacuno		
Porcino		
Caballar		
Aves		

38. Vacuno

- a. Ha variado en forma alguna la manera de criar y mantener sus _____? Sí _____ No _____. Si es sí,

Variación

Cuándo

Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

39. Si no ha variado en forma alguna la manera de criar, etc., ha tenido conocimiento de algunas prácticas que no haya introducido: Sí _____ No _____

Si, si,

(a) Práctica	(b) Origen	(c) Por que no la aceptó
1.		
2.		
3.		
4.		
5.		

40. Porcino

a. Ha variado en forma alguna la manera de criar y mantener sus cerdos? Si _____ No _____. Si es sí

<u>Variación</u>	<u>Cuándo</u>	<u>Origen de la Idea</u>
1.		
2.		
3.		
4.		
5.		

41. Si no ha variado en forma alguna la manera de criar, etc., sus cerdos ha tenido conocimiento de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

Práctica	Origen	Por que no la aceptó
1.		
2.		
3.		
4.		
5.		

42. Caballar

a. Ha variado en forma alguna la manera de criar y mantener sus animales? Si _____ No _____. Si es sí,

Variación

Cuándo

Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

3. Si no ha variado en forma alguna la manera de criar, etc., ha tenido conocimiento de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

(a) Práctica	(b) Origen	(c) Por qué no la aceptó
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____

4. Ha variado en forma alguna de criar, etc., sus aves?
Si _____ No _____. Si es sí,

Variación

Cuándo

Origen de la Idea

1. _____
2. _____
3. _____
4. _____
5. _____

5. Si no ha variado en forma alguna la manera de criar, etc., ha tenido conocimientos de algunas prácticas que no haya introducido? Si _____ No _____. Si es sí,

(a) Práctica	(b) Origen	(c) Por qué no la acepté
1.		
2.		
3.		
4.		
5.		

6. Qué cambios cree Ud. que ha habido en la agricultura, en este lugar, en estos dos últimos años?

(a)
Cambio

(b)
Responsable

7. Cuáles son los principales problemas o dificultades que tiene Ud. en la agricultura:

- a. _____
- b. _____
- c. _____

8. Como cree Ud. que podrían resolverse?

- a. _____
- b. _____
- c. _____

9. Ha tratado el maestro de hacer algo por el mejoramiento agrícola de este lugar? Si _____ No _____

Si, si,

- a. Qué ha tratado de hacer _____
- _____
- _____

50. Tendría Ud. fe en los consejos del maestro sobre agricultura?
Si _____ No _____

Si, si,

a. Por qué _____

51. A través de qué medios (como radio, periódicos, revistas, etc.)
reciben Uds. información sobre agricultura?

52. Si Ud. tuviera dificultades en el uso de caminos entre fincas
a qué personas recurriría Ud.?

a. Persona

b. Relación

c. Lugar

_____	_____	_____
_____	_____	_____

53. Si Ud. tuviera oportunidad de escoger de nuevo una ocupación,
escogería la misma que ahora tiene? Si _____ No _____

a. Por qué? _____

54. Le recomendaría Ud. a un hijo suyo que se dedicara a trabajar
la tierra? Si _____ No _____

a. Por qué? _____

55. Vive aún su padre? Si _____ No _____
56. En que trabaja _____ o trabajaba _____ su padre:
57. Según su opinión, la familia de su padre está _____ o estaba _____ económicamente mejor _____, igual _____, ó peor _____ que lo que está la suya?
- a. Por qué razón? _____
- _____
- _____

PRACTICAS SOBRE SALUD

58. Tiene Ud. libreta de Seguro Social? Si _____ No _____
59. Cuántos otros miembros de la familia tienen libreta de Seguro Social _____
60. Cuáles son las principales dificultades que tienen Uds. en relación con salud?
- a. _____
- b. _____
- c. _____
61. Cómo creen Uds. que podrían resolverse?
- a. _____
- b. _____
- c. _____
62. Ha tratado el maestro de hacer algo por el mejoramiento de la salud en este lugar (hábitos de salud; higiene y sanidad, agua etc.)? Si _____ No _____
- Si, si,
- a. Qué ha tratado de hacer? _____
- _____
- _____

63. Tendría Ud. fé en los consejos del maestros sobre salud, higiene sanidad, etc.? Si _____ No _____

Si, si,

a. Por qué? _____

64. A través de qué medios (como radio, periódicos, revistas, visitas, etc.) reciben Uds. información sobre salud?

PRACTICAS SOBRE ALIMENTACION

65. Quién decide en esta casa sobre los alimentos que deben comprarse?

66. Cuáles son los principales problemas o dificultades que tienen Uds. en cuanto a alimentación?

a. _____

b. _____

c. _____

67. Cómo cree Ud. que podrían resolverse esas dificultades?

a. _____

b. _____

c. _____

68. Ha tratado el maestro de hacer algo por el mejoramiento de la alimentación en este lugar? Si _____ No _____

Si, si,

a. Qué ha tratado de hacer? _____

69. Tendría Ud. fé en los consejos del maestro sobre alimentación (variar los alimentos, la manera de cocinarlos, etc.)

Si _____ No _____

Si, si,

a. Por qué? _____

70. A través de qué medios (como radio, periódicos, revistas, visitas, etc.) obtienen Uds. información sobre alimentación?

71. A qué familias visita Ud. más a menudo? (nos referimos a visitas informales)

a. Nombre

b. Relación

c. Lugar

<u>a. Nombre</u>	<u>b. Relación</u>	<u>c. Lugar</u>

PRACTICAS SOBRE HABITACION

72. Es esta casa propia? _____, alquilada _____ cedida _____

73. Cuáles son los principales problemas o dificultades que tienen ustedes en cuanto a vivienda en este lugar?

a. _____

b. _____

c. _____

74. Cómo creo Ud. que podrían resolverse esas dificultades?

a. _____

b. _____

c. _____

75. Ha tratado el maestro de hacer algo por el mejoramiento de la vivienda en este lugar? Si _____ No _____

Si, si,

a. Que ha tratado de hacer? _____

76. Tendría Ud. fe en los consejos del maestro sobre vivienda?
Si _____ No _____

Si, si,

a. Por qué? _____

77. A través de qué medios (como radio, periódicos, revistas, etc.) reciben Uds. información sobre vivienda?

IMAGEN DEL ROL DEL MAESTRO

78. Preferencia en cuanto al maestro

(a) Preferencia		(b) Marque	(c) Razón o por qué
Varón	Soltero		
	Casado		
Mujer	Soltera		
	Casada		
Joven			
Viejo			
Criado en el campo			
Criado en la ciudad			
Que viva en el campo			
Que viva en la ciudad			

79. Si aquí fueran a nombrar un maestro más, y a usted le pidieran su opinión, cómo le gustaría a usted que fuera ese maestro?

80. Cuáles cree Ud. que son los principales deberes y obligaciones de un maestro fuera de la escuela?

81. En qué cosas de la comunidad cree Ud. que el maestro no debe meterse?

82. Qué más cree Ud. que podría hacer?

83. Cree Ud. que el maestro se interesa más _____, igual _____, menos _____ ahora que hace dos años por los problemas de la comunidad?

a. (Si es más), en qué cosas?

84. A la escuela de qué lugar asisten sus hijos?

ORGANIZACION COMUNAL

85. Fue Ud. a alguna celebración o fiesta durante el año pasado?
Si _____ No _____

a. (Si es sí) a cuáles _____

86. Tuvo Ud. alguna celebración o fiesta en su casa el año pasado?
Si _____ No _____

a. (Si es si), cuáles? _____

87. Quiénes son las personas a quienes Ud. trata con toda confianza y con quienes Ud. discute sus problemas personales?

88. Clubes en funcionamiento

(a) Nombre del club	(b) Fecha fundación	(c) Quien lo formó	(d) Opinión sobre cali- dad de labor

89. Ha desaparecido algún club durante los dos últimos años?

Si _____ No _____

Si, si,

a. Cuáles

b. Por qué

Enero 30, 1953

AERL-144-53

Instituto Interamericano de Ciencias Agrícolas
Departamento de Economía y Bienestar Rural
Turrialba, Costa Rica

PROGRAMA SOBRE EL DESARROLLO DE LA COMUNIDAD RURAL
PROYECTO DE EVALUACION

CUESTIONARIO PARA LA AMA DE CASA

Enumerador _____ Fecha _____

Lugar _____

Editado por: _____ Fecha _____

Codificado por: _____ Fecha _____

Nombre del Jefe de la Familia _____

Nombre del Informante _____

Relación con el Jefe _____

MOVILIDAD

1. Cuánto tiempo ha vivido en este lugar? _____
2. Dónde nació usted? _____
3. Ha vivido alguna vez en un Centro Urbano? Si _____ No _____
4. Donde? _____
5. Qué edad tenía entonces? _____
6. Por cuánto tiempo? _____
7. Lugares visitados fuera del caserio en el mes pasado,
medio de transporte, y tiempo

a. Lugar	b. No. veces	c. Propósitos
1		
2		
3		
4		
5		

PRACTICAS AGROPECUARIAS

8. Le recomendaría Ud. a un hijo suyo que se dedicara a
trabajar la tierra? Si _____ No _____
a. Por qué razón? _____

9. Vive aún su padre? Si _____ No _____
10. En qué trabaja _____ o trabajaba _____ su padre?
11. Según su opinión, la familia de su padre está _____ o
estaba _____ económicamente mejor _____, igual _____,
ó peor _____ que lo que está la suya?

a. Por qué razón? _____

12. Ha tratado el maestro de hacer algo en relación con la agricultura en este lugar? Sí _____ No _____

(Si es sí)

a. Qué ha tratado de hacer? _____

13. Tendría usted fe en los consejos del maestro sobre agricultura? Sí _____ No _____

(Si es sí)

a. Por qué _____

PRACTICAS SOBRE SALUD.--

14. Hierve Ud. el agua para beber? Sí _____ No _____

(Si es sí)

a. Por cuánto tiempo? _____

b. Cuándo aproximadamente empezó a hervirla? _____

c. Por qué la hierve? _____

d. De dónde cogió la idea de hervir el agua? _____

(Si no la hierve)

a. Por qué no la hierve? _____

b. Ha tenido Ud. conocimiento sobre la importancia de hervir el agua? Si _____ No _____

(Si es sí)

c. Cómo tuvo ese conocimiento? _____

15. Hierve Ud. la leche? Si _____ No _____

(Si es sí)

a. Cuando aproximadamente empezó a hervirla? _____

b. Por qué la hierve? _____

c. De dónde cogió la idea? _____

16. Dispone la familia de facilidades de excusado? Si _____

No _____

(Si es sí)

a. De qué clase? _____

b. Aproximadamente cuánto tiempo hace que tiene esa clase de excusado? _____

c. (Si esa clase de excusado fué construido hace 3 años más o menos)

De dónde cogió la idea de construir excusado? _____

(Si no)

d. Por qué no lo tiene? _____

e. Ha tenido Ud. conocimiento sobre la importancia de tener excusado? Si _____ No _____

(Si es sí)

f. Cómo tuvo ese conocimiento? _____

17. Insectos y Alimañas en la Casa y sus Alrededores y Manera de Combatirlos -

a Insectos o Alimañas	b Tratamiento	c Origen de Idea
1		
2		
3		
4		
5		
6		
7		

18. Utilización de Servicios Médicos en los Ultimos 12 Meses por la Familia. (Número de visitas)

Servicios Utilizados	b No. de veces que visitó	c Opinión
Servicios de Dispensario		Hospital:
Hospital Seguro Social		
Unidad Sanitaria		
(Unidad Sanitaria		Unidad Sanitaria
Dentista (Seguro Social		
(Particular		

19. Cuando fué su último parto? _____

20. Dónde fué atendida en su último parto?

Hospital _____ Casa _____ Otros _____

21. Dónde fué atendida en su penúltimo parto?

Hospital _____ Casa _____ Otros _____

Si hay diferencia, a qué se debe? _____

22. Durante los últimos 12 meses, cuántas veces más o menos ha utilizado la familia los servicios de:

Número de veces

a. Doctor particular _____

b. Farmacéutico (para curación) _____

c. Curandero _____

d. Enfermero (para curación) _____

23. Cuáles son las principales dificultades que tienen Uds. en relación con salud?

a. _____

b. _____

c. _____

24. Cómo creen ustedes que podrían resolverse?

a. _____

b. _____

c. _____

25. Ha tratado el maestro de hacer algo por el mejoramiento de la salud en este lugar? (hábitos de salud; higiene y sanidad; agua, etc). Si _____ No _____

(Si es sí)

a. Qué ha tratado de hacer? _____

26. Tendría usted fe en los consejos del maestro sobre salud, higiene, sanidad, etc.? Sí _____ No _____

(Si es sí)

a. Por qué _____

27. A través de qué medios (como radio, periódicos, revistas, visitas, etc.) reciben ustedes información sobre salud?

PRACTICAS SOBRE NUTRICION.-

28. Qué usa Ud. en la preparación de tortillas? Ceniza ___ o Cal ___

Si usa cal:

a. Cuándo aproximadamente empezó a usarla? _____

b. Por qué la usa? _____

c. De dónde tomó la idea? _____

Si no usa cal:

a. Ha tenido usted conocimiento sobre el uso de cal en la preparación de tortillas? Sí _____ No _____

Si es sí, como tuvo ese conocimiento? _____

29. ¿Quién decide en esta casa sobre los alimentos que deben comprarse? _____

30. Cuáles son los principales problemas o dificultades que tienen Uds. en cuanto a alimentación?

- a. _____
- b. _____
- c. _____

31. Cómo cree Ud. que podrían resolverse esas dificultades?

- a. _____
- b. _____
- c. _____

32. En opinión suya la alimentación de ustedes ha mejorado____, está igual____, o ha empeorado____ durante los dos últimos años?

33. En qué forma ha mejorado o empeorado?
(ahondar lo más posible en la respuesta),

34. Ha tratado el maestro de hacer algo por el mejoramiento de la alimentación en este lugar? Si _____ No _____

(Si es sí)

a. Qué ha tratado de hacer? _____

35. Tendría usted fe en los consejos del maestro sobre alimentación? (Variar los alimentos, la manera de cocinarlos, etc.) Si _____ No _____

(Si es sí)

a. Por qué? _____

36. A través de qué medios (como radio, periódicos, revistas, visitas, etc.) reciben ustedes información sobre alimentación? _____

37. A qué familias visita Ud. más a menudo?

^a
Nombre

^b
Relación

^c
Lugar

PRACTICAS SOBRE HABITACION.-

38. Tiene la familia mesa para comer? Si _____ No _____

39. Con qué limpian ustedes los pisos de la casa? _____

40. Cuáles son los principales problemas o dificultades que tienen ustedes en cuanto a vivienda en este lugar?

a. _____

b. _____

c. _____

41. Cómo cree Ud. que podrían resolverse esas dificultades?

a. _____

b. _____

c. _____

42. Ha tratado el maestro de hacer algo por el mejoramiento de la vivienda en este lugar? Si _____ No _____

(Si es sí)

a. Que ha tratado de hacer? _____

43. Tendría usted fe en los consejos del maestro sobre vivienda? Si _____ No _____

(Si es sí)

a. Por qué? _____

44. A través de qué medios (como radio, periódico, revistas, visitas, etc.) reciben ustedes información sobre vivienda?

PRACTICAS SOBRE VESTIDO.-

45. Hacen alguna ropa en la casa? Si _____ No _____

(Si es sí)

a. Qué prendas de vestir hacen? _____

b. Cómo las hacen, a máquina _____, o a mano _____?

46. Con quién aprendió a coser? _____

47. Compran ustedes alguna ropa en este lugar? Si _____ No _____

(Si es sí)

a. Qué compran? _____

48. Tienen ustedes costumbre de estrenar en alguna época especial del año? Si _____ No _____

(Si es sí)

a. En cuáles épocas? _____

49. En su casa, cuántos usan zapatos, todos los días _____, domingos o días feriados solamente _____?

50. Cuáles son los principales problemas o dificultades que tienen ustedes en cuanto a vestido en este lugar?

a. _____

b. _____

c. _____

51. Cómo cree Ud. que podrían resolverse esas dificultades?

a. _____

b. _____

c. _____

52. Ha tratado el maestro de hacer algo por el mejoramiento del vestido (prendas de vestir, su arreglo, limpieza, etc.) en este lugar? Sí _____ No _____

(Si es sí)

a. Qué ha tratado de hacer? _____

53. Tendría usted fe en los consejos del maestro en relación al vestido? Sí _____ No _____

(Si es sí)

a. Por qué? _____

54. A través de qué medios (como radio, periódicos, revistas, visitas, etc.) reciben ustedes información sobre vestido?

IMAGEN DEL ROL DEL MAESTRO.-

55. Preferencia en cuanto al maestro

a Preferencia	b Marque	c Razón o Por Qué
Varón Soltero		
Casado		
Mujer Soltera		
Casada		
Joven		
Viejo		
Criado en el Campo		
Criado en la Ciudad		
Que viva en el Campo		
Que viva en la Ciudad		

56. Si aquí fueran a nombrar un maestro más, y a usted le pidieran su opinión, cómo le gustaría a usted que fuera ese maestro? _____

57. Cuáles cree Ud. que son los principales deberes y obligaciones de un maestro fuera de la escuela?

58. En qué cosas de la comunidad cree Ud. que un maestro no debe meterse?

59. Cree Ud. que el maestro se interesa más ____, igual ____, menos ____ ahora que hace dos años por los problemas de la comunidad?

(Si es más)

a. En qué cosas? _____

60. A la escuela de qué lugar asisten sus hijos? _____

ORGANIZACION COMUNAL.-

61. Fué Ud. a alguna celebración o fiesta durante el año pasado? Si _____ No _____

(Si es sí)

a. A cuáles? _____

62. Tuvo Ud. alguna celebración o fiesta en su casa el año pasado? Si _____ No _____

(Si es sí)

a. Cuáles? _____

63. Clubes en funcionamiento

[illegible]

64. Ha desaparecido algún club durante los dos últimos años?

Si _____ No _____

(S1 es s1)

A. Cuales

b. Por qué

FAMILIA

1. Como con cuantas familias de este lugar esta ud. emparentada?

2. A que familias (jefe de familia) de este lugar lo ha llevado ud. sus hijos a bautizar?

1. _____

2. _____

3. _____

4. _____

4. _____

RELIGION

1. Acostumbran Uds. rezar el Santo Rosario? Si____, No____

a. Cuantas veces a la semana?_____

b. De la familia, quienes estan presentes?_____

c. Quien lo dirige?_____

2. Va Ud. a misa alguna vez a Turrialba? Si____, No____

a. Como cuantas veces al mes?_____

b. Si el esposo va, como cuantas veces al mes?_____

c. Acostumbra Ud. hacer promesas? Si____, No____

Como que clase de promesas?_____

OCUPACION (para ser preguntado sobre todos los que trabajan)

Nombre	Sitio	Tipo trabajo	Fecha	Dormia ahí
1				
2				
3				

HERMANOS QUE VIVEN FUERA DEL LUGAR

||||

Nombre	Lugar	Fecha partida	Si los ve, cuando	Si escribe, cuando
1.				
2.				
3.				
4.				

USO DEL CLORDANO

1. Antes de llegar Clordano, qué se usaba para matar hormigas? _____

2. Se usaba mucho _____ por la demás gente de aquí? Si _____,
No _____.
3. Cómo de bueno era _____, comparándolo con el Clordano? _____
4. Cómo se usaba _____? (Ahóndese sobre quienes hacía el trabajo, v. g., mujeres, niños, etc.)

5. Qué de caro era? _____, comparándolo con el clordano? _____

6. Usaba Ud. _____ para matar otros bichos? Si _____, No _____
Si es sí: Cuáles? _____
7. Comparando el problema de las hormigas cuando se usaba _____
con el problema de ahora, como era antes? _____
8. Antes de usar _____, que se usaba? _____
Cuánto tiempo hace de eso? _____
9. Me podría explicar como fué que tuvo el primer conocimiento sobre Clordano? (Ahóndese sobre: a) si fué IICA.; b) si se hicieron grupos para demostración; c) si vinieron personalmente donde el informante, etc.) _____

10. Cómo le enseñaron a usarlo? (si es que le enseñaron) _____

11. Le regalaron el Clordano primeramente _____ o lo compró? _____

12. (Si lo compró la primera vez que lo usó) qué fué lo que lo convenció de que debería usar clordano? _____

13. Desde cuando compra Clordano?(si lo compra) _____
Dónde lo compra? _____
14. (Si fueron los venezolanos los que introdujeron el Clordano) qué tal se portaron los venezolanos con ustedes? _____

15. Además de (agente que introdujo el Clordano), alguien más lo aconsejó para que usara Clordano? Si _____, No _____, Quién? _____
16. Quienes fueron los primeros del pueblo en usar Clordano? _____

17. Recuerda Ud; la primera vez que usó Clordano, que (quien) lo indujo a usarlo? (Ahóndese para ver influencia de personas, o necesidad, etc.) _____

18. Cómo usa Ud. ahora el Clordano? (compárese con respuesta a#10, si la respuesta es diferente, ahóndese en cuanto a por qué.) _____

19. Usa Ud. Clordano en otros bichos? Si _____, No _____, -
Cuáles? _____
Si no fué recomendación del agente, por qué lo usa ahí? _____

20. Quienes hacen el trabajo de combate de hormigas? (varones, mujeres) _____

21. Cree Ud. que el clordano ha resuelto el problema de las hormigas? Si _____, No _____, Por qué? _____
22. Cree Ud. que sea posible acabar con las hormigas? Si _____, No _____
Si es sí: Cómo? _____

HUERTA CASERA

1. He tenido Ud. huerta casera en estos dos últimos años? Si____, No____

A. Si es sí:

1) Cuándo?_____

2) Qué tenía sembrado en ella? a)_____, b)_____

c)_____.-

3) Alguien en particular le aconsejó sembrarla? Si_____, No____

a) Quién_____, b) Qué le aconsejó sembrar?- (1)_____

_____, (2)_____, (3)_____, (4)_____

c) Cómo fué ese consejo? (método, regalo, etc)_____

4) Alguien más le aconsejó sembrar hortalizas?_____

a) Quién?_____

b) Qué le aconsejó sembrar? (1)_____, (2)_____

_____, (3)_____, (4)_____

c) Cómo fué ese consejo?_____

5) Por qué no sembró (compárese A-2 con A-3b y A-4b)_____

6) Quiénes hacían el trabajo de huerta?_____

7) Cree Ud. que el trabajo de huerta, para consumo de la casa,
es trabajo de chiquillos, de jefe, etc.?_____

8) Alguién se tomó algún interés especial en ver sus hortalizas?- Si_____, No_____, Quién?_____

9) Por qué dejó de sembrar hortalizas? _____

B. Si es no:

1) Por qué no siembra hortalizas? _____

2) Véase página anterior, A-3, A-4, A-7

C. Sabe Ud. de alguien que tenga huerta casera ahora? Si _____, No _____
Quién? _____.-

D. Sabe Ud. de alguien que tivera huerta antes (2 años)? Si _____,
No _____, Quién? _____.-

E. Consumen Uds. de vez en cuando hortalizas? Si _____, No _____
Cuáles? a) _____, b) _____, c) _____
Cuándo fué la última vez las consumieron? _____

F. Por qué consumen (o no consumen) hortalizas? (gusto, etc) _____

G. Qué creen Uds. sobre las hortalizas, como alimento? _____

H. Cuándo fué la primera vez que Ud. sembró hortalizas? _____

Dónde? (escuela, casa, etc.) _____

Cuáles? _____

Por qué? _____

CAÑA P.O.J.

1. Cuánto tiempo hace que siembra caña? _____
2. Llegó a tener caña criolla? - Si _____, No _____ # manz. _____
3. Tenía (o tiene) la criolla alguna ventaja sobre la P.O.J.? _____
Si _____, No _____, . Cuáles? _____
4. Quiénes fueron los primeros en sembrar P.O.J. aquí? _____

5. Qué tiempo hace que Ud. siembra P.O.J.? _____ # manz. _____
6. Qué le indujo a sembrar P.O.J.? (Ahóndese: Le dijeron personalmente, vió a otros hacerlo, etc) _____

7. Qué fué lo que lo convenció de que debería sembrar P.O.J.? _____

8. Dónde consiguió la primera semilla de P.O.J.? _____
Cómo? (compra, regalo) _____
9. Me podría explicar como fué el cambio, v.g., empezó con poca, experimento, etc? _____
10. Le queda alguna criolla? _____
Por qué? _____
11. Le come el ganado la hoja de P.O.J.? - Si _____, No _____
.Usa la hoja para ranchos? - Si _____, No _____
12. Llegó Ud. a hacer milpa en terrenos fuera de S.J.N.? - Si _____, No _____
Cuándo? _____
Por qué dejó de hacerlo? _____

CULTURAL CHANGE IN A COSTA RICAN VILLAGE

by

Manuel Alers-Montalvo

AN ABSTRACT

**Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of**

DOCTOR OF PHILOSOPHY

Department of Sociology and Anthropology

Year

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Approved

Chas. P. Loomer

AN ABSTRACT

This is a study in cultural change, based on ten months of intensive field work in Costa Rica. The author was motivated by a theoretical interest in the dynamics of cultural change. The study carries a personal hope that it may be of utility in orienting programs of cultural change in Latin America, and in other regions which are considered under-developed.

Since 1951 the Interamerican Institute of Agricultural Sciences, in Turrialba, Costa Rica, has undertaken a rural education program in selected villages of the area. Attention has been focused on the use of the local teacher as a change agent. The principal objective of the present study was to investigate the consequences of this program in a particular village. There was interest in finding out what had changed--as a result of the teacher or any other change agent--how it had changed and why it had changed.

The investigator lived continuously for five months in the village of San Juan Norte. San Juan Norte is a strongly religious village of small proprietors in which almost everyone is kin to everyone else, and where social class divisions are almost nonexistent. There are sixty families in the village, with a total population of 336.

A general schedule was administered to practically all the male heads of family. Information was requested on demography, selected practices in agriculture, health, nutrition, housing and clothing. Another general schedule was administered to practically all the housewives. This schedule was similar to the male's except that the section on agriculture was not stressed.

Analysis of the schedule for men permitted the selection of three practices in agriculture and health-nutrition for intensive study as to why

they had been accepted or rejected. The practices chosen were: (a) the use of insecticide chlordane--universally adopted in the last two years; (b) the cultivation of home vegetable gardens--stressed by the change agents in the last two years, but virtually rejected; and (c) the cultivation of POJ sugar cane--universally adopted during the last ten years.

A set of similar hypotheses was postulated to account for the adoption or the rejection of each practice. Schedules on each of the three practices were administered to a small sample of village farmers. An analysis of all the data collected revealed that three variables had been crucial in determining the acceptance or rejection of a practice: (a) felt need, (b) degree of compatibility of the practice with the local culture and (c) the presence or absence of "objective proof" of the efficiency of the new item. For example, chlordane and POJ sugar cane were accepted because villagers felt a need for them, they "fitted" into the local culture and objective proof of their efficiency was furnished. Vegetable gardens, on the other hand, were not accepted because people felt no need for them, they did not fit into the local culture and no objective proof of the feasibility of regularly cultivating them was furnished.

Other variables such as "leadership," prestige and the image that villagers had of the change agent were not found to be as significant as the above-mentioned three.