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THE FAMILY PLANNING PROGRAM AMONG THE INDIAN POPULATION OF GUATEMALA

A Report Prepared By:
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I. INTRODUCTION

A. Scope of Work

The purpose of the consultation was to participate in evaluation meetings in the APROFAM Indigenous Project during the week of November 26-30.

B. Background

Guatamala is a country with a high rate of natural increase resulting from rapidly plunging mortality and continued high fertility (Table 1). The slight fertility decline seen in the national figures is due almost exclusively to the fall of fertility in Guatemala City which comprises about 20% of the national population (Table 2). There has been very little decline of fertility in the rural areas in either ethnic group, Ladino or Indian (Tables 3 and 4).

Against this background, the national economic plan has called for the initiation of family planning efforts. However, there is considerable opposition to such efforts from various segments of the country. For this reason the government has been hesitant about implementing a national family planning program. Most of the work has been undertaken by a private organization, Asociacion ProBienestar de la Familia (APROFAM) which initiated the family planning movement in Guatemala by its work in Guatemala City in 1965. This organization has had considerable success in its program for Guatemala City. Now it is facing the much more difficult task of expanding its program into the rural areas. This includes the Mayan Indian sector which comprises approximately one-half the national population. Since the problems of this sector are to some extent different from those of the rural Ladino, a special Indian program has been established. This began in 1979 helped by a Q20,759 grant from AID-Guatemala. APROFAM, under the direction of Dr. Roberto Santiso G., has placed this program under the Department of Education and Information directed by Sr. Fidel Enrique Soto. A small, first-year program was initiated by the hiring of two Indian couples as promotores and two experimental sites were chosen to initiate field efforts. In June an anthropologist, Sr. James Mondloch, was hired to train the personnel of the program, to supervise them in the field and to help develop the program. Plans for the second year of the program were developed.

Two days of meetings (November 27, 28) as well as subsequent conferences were then scheduled for a full-scale review of the second-year proposal. In attendance were all APROFAM personnel concerned with the program as well as U.S. technical assistance personnel, Sra. Jane Bertrand who has worked for both the University of Chicago and Columbia University, and Sr. Stephen Isaacs from Columbia University. Sr. Mondloch, through APROFAM and AID, requested that I be brought in for these meetings and consultation with him. Other than Sr. Mondloch himself, no one in attendance at these meetings has had any long-term personal or professional experience in the Indian area. Sr. Mondloch thought it would be advisable to have present an additional person who had this experience. Also, he felt the need "to bounce his ideas off" of someone with both administrative and field experience in the Indian area. Specifically,

the scope of this consultant was to assist in linking the Indian program in general, and the second-year IEC program proposal in particular, with culturally acceptable Indian practices. APROFAM itself is mostly composed of Guatemalan professionals from the capital and the capital itself has historically been the area in which the organization has successfully worked. At present, the organization is going through the typical growing pains of initial involvement in the Indian area. In his associations with and observations of government projects, private community development groups and missionaries, the writer has seen this process since 1965.

TABLE 1

Crude Birth, Death and Natural Increase Rates, Republic, 1930-1976

	1930-34	1935-39	1940-44	1945-49	1950-54	1955-59	1960-64	1965-69	1970-74	1975-76
Birth	46.2	44.2	45.2	49.1	49.9	48.0	47.0	43.9	42.9	42.2
Death	41.4	35.7	29.2	22.8	20.8	19.4	16.5	16.3	12.5	9.9
Natural Increase	4.8	8.5	16.0	26.3	29.1	28.6	30.5	27.6	30.4	32.3
Years Required For Population To Double	144.8	81.9	43.7	26.7	23.9	24.4	22.8	25.3	23.0	21.5

Source: Births 1930-49, Collver 1965:128.

Deaths 1930-49, Arriaga 1970:147.

TABLE 2

Crude Birth, Death and Natural Increase Rates by City, Towns, Rural; 1950-1973

	Guatemala City					Rural				
	1950-54	1955-59	1960-64	1965-69	1970-73	1950-54	1955-59	1960-64	1965-69	1970-73
Births	45.2	43.8	41.6	35.0	33.0	51.0	48.5	47.1	44.5	43.8
Deaths	15.6	13.4	10.9	9.7	9.3	21.5	20.1	17.1	16.8	13.7
Natural Increase	29.6	30.4	30.7	25.3	23.7	29.5	28.4	30.0	27.7	30.1
Years to Double	23.4	23.8	22.6	27.4	29.3	23.5	24.4	23.1	25.1	23.1

Towns

	1950-54	1955-59	1960-64	1965-69	1970-73
Births	48.9	48.9	51.0	50.7	49.6
Deaths	21.6	21.1	18.6	20.6	16.9
Natural Increase	27.3	27.8	32.4	30.1	32.7
Years to Double	25.4	25.0	21.4	23.1	21.2

Source: Chapters XIII and XV

TABLE 3

Crude Birth, Death and Natural Increase Rates by Ethnic Group, Differences, 1950-1973

	Mayan Indian					Ladino				
	1950-54	1955-59	1960-64	1965-69	1970-73	1950-54	1955-59	1960-64	1965-69	1970-73
Birth	50.8	50.8	47.3	45.0	44.4	49.0	46.6	46.6	42.7	41.3
Death	24.2	24.1	20.0	19.5	15.1	16.6	14.9	12.7	13.1	11.9
Natural Increase	26.6	26.7	27.3	25.5	29.3	32.4	31.7	33.9	29.6	29.4
Years Required To Double	25.2	25.2	24.0	27.2	23.6	21.4	21.5	20.4	23.5	23.4
Differences (Indian-Ladino)										
Birth	1.8	4.2	.7	2.3	3.1					
Death	7.6	9.2	7.3	6.4	3.2					
Natural Increase	-5.8	-5.0	-6.6	-4.1	-.1					

Source: Chapter XIV

TABLE 4

Crude Birth Death and Natural Increase Rates, Rural (Republic-Dept. of Guatemala[1]) by Ethnic Group, Differences, 1950-73

	Indian					Ladino				
	1950-54	1955-59	1960-64	1965-69	1970-73	1950-54	1955-59	1960-64	1965-69	1970-73
Birth	51.1	51.5	47.7	45.2	44.9	51.6	48.6	48.9	45.6	44.9
Death	24.5	24.5	20.3	20.0	14.8	17.2	15.7	13.5	15.5	13.6
Natural Increase	26.6	27.0	27.4	25.2	30.1	34.4	32.9	35.4	30.1	31.3
Years To Double	26.1	25.7	25.3	27.5	23.1	20.1	21.1	19.6	23.1	22.2
Differences (Indian-Ladino)										
Birth	-.5	2.9	-1.2	-.4	0					
Death	7.3	8.8	6.8	4.5	1.2					
Natural Increase	-7.8	-5.9	-8.0	-4.9	-1.2					

Source: Chapters XII, XIII and XIV

II. OBSERVATIONS

A. The Mayan Culture in Relation to Fertility and Fertility Control

This chapter will attempt to sketch some of the main aspects of Mayan culture in relation to fertility and fertility control. This will serve as background for the recommendations regarding the second-year program in the next chapter. This sketch will be brief and summary. Even an introductory understanding of Mayan culture requires at least an academic course.

Perhaps the first thing to be remembered is that there is considerable diversity within contemporary Mayan culture in Guatemala. If the consideration is restricted to the western highlands, the degree of diversity is mitigated. But at no time should the Indian culture be thought of in homogeneous and monolithic terms. From the viewpoint of technology diffusion (of which family planning is one example), the degree of change or acculturation adopted by an Indian community while retaining Indian identity is the most important perspective for considering this diversity. Appendix B is a demographic survey containing a four-fold classification of change among the contemporary Maya. To understand where the Maya are coming from, the more traditional type culture will be discussed first.

B. Traditional World View and Its Attitudes Toward Fertility

The traditional world view of the Maya is univocal in the sense that it is the single explanation system for all phenomena. What industrial man divides into religion, science, philosophy, ethics and other explanation systems, all are rolled into a single system for the Maya. All the natural processes are conceived as having been originated by various divinities who continue their rule and concern with them. However, there are two types of rule, direct and indirect. Direct is the more dominant type in which the divinity continues absolute dominion of the natural process. In those areas of life, the Maya are fatalistic. Other aspects of nature are ruled by indirect dominion. This occurs when the divinity bestows a technique as a gift in which the individual is allowed some discretion and to exercise some skill. In these areas the Maya will be very practical knowing that they can influence results. Hence the world view results in a series of attitudes which can be either highly fatalistic or extremely practical.

Sexuality and the sexual act are colored by this ambivalance of fatalism and practicality. The traditional culture has a strong puritanical note. The sexual act is seen as sinful, but a necessary sin in order to have children. Sex is a subject that can only be discussed in the most private of forums. The traditional culture has historically been a high fertility culture. There does not appear to be any rationalization for high fertility other than following the natural process which is seen as divinity-given and therefore ethical. Abortion appears to be the main fertility control mechanism known in the traditional culture, and it is considered as sinful inasmuch as it rejects the divinity-given natural process by taking a life (for further information, confer with Early). Contraception when first known is usually seen the same way.

C. Traditional Fertility Practice

Historically and in the contemporary period, Maya villages have high fertility with crude birthrates from the mid-forties to sixty. However, there are pressures in the traditional situation for fertility limitation. With total fertility rates of eight and nine, there are physiological and psychological pressures on women toward the end of their fertile span not to have any more children. There is economic stratification within the traditional culture and the poorer families (little land) feel the pressure. The knowledge of abortion by various methods is universal among the women and its practice appears fairly widespread in spite of the strictures of the culture. Other practices also respond to these same pressures. Infanticide is practiced although it is impossible to give any quantitative estimate. Another practice sometimes occurs when there is a closely spaced child between an older and younger sibling. If this child becomes ill, no effort will be made to save it while frantic efforts will be made to save other siblings. It is clear that a decision is taken to "thin the flock."

D. Changing Maya Culture

The traditional Mayan culture today is under heavy pressure to change. The culture historically was based on a subsistence economy of corn agriculture. Currently, the Maya (as well as Ladino campesinos) face an extreme land shortage. This land shortage is forcing numerous economic changes in the traditional culture such as agricultural wage labor, wage labor in a number of occupations formerly considered as reserved for Ladinos, temporary migration out of the Indian heartland for the sake of wage labor and permanent migration. This upheaval in the economic base of the traditional culture is forcing the Indian to become involved in the national culture and to feel the pressures for many types of technological and cultural change. It is in this broader context that the contemporary Maya are feeling the change pressures toward smaller families and beginning to ask questions about family planning.

E. The Current Family Planning Situation

Based on the writer's experience and to a lesser extent on formal studies, this appears to be the current context in which the development of family planning programs is taking place. There are strong external pressures in favor of family planning in the Indian area. They have created an inward desire among many Maya for family limitation. The obstacles to implementing family planning appear two-fold. 1) Availability of contraceptives and personnel who can properly help and educate in their use. This is not a problem with the Indian sector. This is a problem at the level of the national bureaucracies. The present APROFAM program is an effort to confront the problem, but it is being undertaken under less than ideal circumstances because it lacks full government support and better integration and coordination with national health facilities. 2) The second area of difficulty is within the Indian sector itself. Most of these problems involve fear. Among the more traditional type, there is the ethical fear arising from the traditional culture. As important, if not more important, is the fear arising from the use of unknown technology. This is especially true of a technology

involving the physical body and touching on sexuality. The Indians have been told so many false or impractical things by so-called experts that they have a justified fear of technical innovations. Often in the past they have turned out to have been either new ways to exploit them by the malicious minded, or just stupid proposals by well-meaning do-gooders. Another source of fear is the social structure surrounding fertility technology -- Ladino domination and from the viewpoint of the Indian woman, male Ladino. Another fear is rumor (sometimes well-founded) of harm caused by contraceptive methods. These fears are present in the Indian sector with varying degrees of strength depending on the degree of traditionalism or acculturation. Mondloch's Anthropological Guide and its use by the comunicadores should help specify these problems.

Therefore, there is a two-fold problem: 1) the setting up of a realistic delivery system, and 2) the time it will take the Indian to learn how to use the delivery system. They need time to psychologically work through their emotions influenced to varying degrees by the traditional culture. They need time for a period of learning by their intellects. This writer thinks that there is already present a strong inner desire among many Indian groups. Once the working through and learning period is accomplished, this writer is convinced that there will be rapid and widespread use of contraceptives by the Indian population.

F. The Chicago University KAP Studies

The above view differs from the impression given by the KAP surveys conducted by the University of Chicago. This writer has a number of methodological problems with these studies. Practically all stem from the fact that they are designed and interpreted without any knowledge of the Indian area. But what worries this writer is the negative prognosis for family planning implied by these studies. They might be used as a basis for a policy decision not to invest resources in the Indian sector, but transfer them to other Guatemalan sectors where there appears the possibility of greater return. These studies with difficulties are picking up the "cultural drag" aspect of the problem and do not insert it in the larger picture sketched above.

III. RECOMMENDATION FOR THE SECOND-YEAR PLAN

A. The Problem of the Comunicadores

During the coming year two more Indian couples are to be hired. Originally AID wished the Indian personnel of the program to be distributors of contraceptives as well as provide information on family planning. Because of government pressure, APROFAM said the Indian personnel could not be distributors. AID agreed for political reasons. However, this left the only function for the Indian personnel as that of "talking up" family planning. This put the Indian personnel in an impossible position in an Indian community from the viewpoint of carrying out the program. There are two main difficulties: 1) Family planning (and anything concerning sexuality) is a highly sensitive subject in Indian communities that requires entree before one can talk about it. If the comunicadores had no other function in the community, they would have little opportunity to bring up the subject. 2) The Indian is suspicious of people who only talk. The Indian is very practical. He wants to see successful results. Then he will listen to a person's talk. But if the person has no practical activity legitimating themselves before the community, then there is no opportunity to prove themselves. As the program had evolved, the comunicadores were caught in this position. Therefore, it was strongly recommended that the comunicadores have another service function in which they would make a visible contribution to the community. This would legitimate them before the community and give an opportunity for interchange with the community on other matters than simply family planning. Some type of health service would have the closest affinity to family planning. However, in some areas this may already be taken care of. Therefore, it was advised that APROFAM have a series of community services (health, literacy, sewing, child care, etc.) that its comunicadores could perform, and let the selection of which particular one be dictated by a survey of community needs. The training for these different specialities could be provided by other specialized organizations working in the Indian area.

B. Location of the Experimental Communities

The main criterion used in the first-year plan for selection of communities was linguistic, i.e., one in the Quiche speaking area and the other in the Cakchiquel. The writer recommended that linguistic criteria be dropped as an important criterion of selection. The language classification merely represents geographical dispersion. The language groups are not social groups nor do they represent primary communication networks for the diffusion of technology. The language divisions of Guatemala were made by outside linguists and their appropriateness is a disputed matter among linguists. The Indians themselves do use these divisions. Even within some of the so-called language groups, not all the dialects are mutually intelligible. The language divisions are unimportant and should not be used as primary criteria for site selection.

It was recommended not to start in very traditional types of Indian communities. The time and effort would be much more costly and there would be no demonstration effect from this sector. The traditional Maya are today a minority of the Guatemalan Maya. However, this does not necessarily dictate initial involvement among marginal Indian groups. Opposition here can also

be violent, but more along the lines found in Ladino communities. There are protests from those who see family planning movements as means to depopulate an exploited sector rather than tackle the much more difficult task of implementing distributive justice in the social order. The Catholic Church and evangelical Protestant groups are also likely to lead formal opposition in these areas.

It was recommended to concentrate the beginnings of the program among partially acculturated Indian groups who at the same time have not been heavily influenced by anti-family planning ideology of various Ladino groups. Family planning will be discussed on an individual basis within the homes. For the time being, no public classes will be given. As an extended part of this consultancy, the writer has combed through his Guatemalan data base and selected several municipios which appear to fit this description (confer Appendix C). The search was restricted to the departments of Sacatepequez, Chimaltenango, Solola, Totonicapan, Quezaltenango and the southern part of Quiche. The first few years of the program will be developed in this region. Each community will be surveyed by Mondloch to check the accuracy of the survey designation and to discover any local problems as well as the other type of service that can be performed by the comunicadores.

It was also recommended that a cabecera municipal be selected as the main activity site for the Indian couple. The cabeceras are the focal points of change in the Indian municipios and the hub of the communications network within a municipio (mostly word of mouth). The municipio itself is the strongest unit of social allegiance among most Indians. Therefore, the demonstration effect would work best from this location. It will also allow the use of bus lines for much of the required travel. This saves the purchase and use of vehicles which has a tendency to draw a high rate of nondedicated people to this type of job. Some opposition was expressed to implementing the program in cabeceras based on the perception of them as urban units with many services already provided. The writer has done an analysis of all 325 Guatemalan municipios and their status as urban or rural. (This was contract work for CDC-Atlanta.) The census, using an administrative criterion, classifies all cabeceras as urban. But here the concern is sociocultural, not administrative. In the research it was shown that the vast majority of these cabeceras are rural in a sociocultural sense. Large cabeceras with urban characteristics, most of which are also cabeceras departmentales, are excluded from the recommendation.

C. Personnel Criteria for Positions of Head of Program, Supervisors and Comunicadores

It was recommended that these be considered as ideal or suggestive rather than hard and fast criteria. The success of the program is going to depend on these people. Therefore, if a person is known to have a good track record in community activity, but is deficient in some of the criteria, he or she should not be automatically eliminated.

Another recommendation was that the personnel chosen for head of the program and the supervisors spend part of their time performing the functions of comunicadores. The comunicadores are the field people, the cutting

edge of the program. The head of the program and the supervisors will be in a much better position to perform their functions if they have personal experience of the difficulties of this role.

D. Training Program

It was recommended that the training program be on-going since the time given for the original preparation appears to be very short.

E. Materials

It appears that a timing problem arose in the preparation of the materials. A grant was given to develop the materials for the program and a pressure created to get the job done. However, the program itself had not yet been developed and it appears this caused some problems. It was recommended that Indian artists be used in materials development as this would appear to solve a number of problems that developed. There are many Indian artists available.

F. Evaluation

The evaluation unit has prepared a memo with a series of mechanisms for flow of information to be used in monitoring the Indian program. The writer has some doubts about the process for two reasons: 1) Much of it depends on paper flow by Indian personnel who are not accustomed to a life of paper flow. There will probably be problems. 2) There are methodological problems with the proposed community study. This is not the place for a detailed discussion; however, the writer is not sure that a good evaluation system can be established at this time. The recommendation, therefore, is that all concerned realize the inherent weakness of the evaluation system and not overuse its output in the policy making process at this point in time. Another problem in the evaluation system is the bureaucratic tension it creates for the future head of the Indian program and the people working with him. The evaluation unit will be judging the effectiveness of this program. Yet there is no one in the evaluation unit with long-term personal or professional experience in the Indian area. This is required for realistic design, implementation and interpretation of instruments. This creates a potential source of conflict. The solution would be to add another professional person to the evaluation unit who has personal and professional experience in the Indian area. However, this recommendation would be difficult to implement because of the scarcity and cost of such a person. The actual recommendation is simple, that all be aware of this problem.

Appendix A - Persons Consulted

The following were present in the meetings on the second year program.

Dr. Roberto Santiso
Sr. Fidel Enrique Soto
Sra. Maria Antonieta Pineda
Sr. James Mondloch
Sra. Jane Bertrand
Sr. Stephen Isaacs
Sr. John Early

The following were consulted at AID-Guatemala.

Sr. Edmonds
Sr. Woodward

Appendix B

A Demographic Survey of Contemporary Guatemalan Maya

This survey was originally written to critique the coverage of the Guatemalan Maya by ethnographic research. It is included here as background for anyone working in applied programs among the Guatemalan Maya.

How Many?

The revised Indian population figures are presented in table 1. In 1973 (most recent census) there were 2,680,178 Maya in Guatemala according to the revision of departmental populations or 48% of the national population. The municipio revision gives a total of 2,826,376. The two sums are not in agreement because of different methodologies employed for the two levels. Using an average 2.7% Mayan rate of total increase for 1970-1972, there are between 3,230,393 and 3,406,604 Maya in Guatemala in 1980 or 47.3% of the national population. The immediate inference from these figures is the relatively large size of the Guatemalan Maya and the impossibility of employing any analysis exclusively dependent on small group methodology.

Location of the Maya Within Guatemala

In discussing the location of the Maya, the unit of analysis needs to be determined. Tax (1937) established the municipio as the basic unit. Many since have reaffirmed its importance. "The Indian is conscious of the unity and uniqueness of his municipio" (Hunt and J. Nash 1967:272). Like any such principle, it should be used with caution. Camara (1952:153), in the original Heritage volume, noted that when acculturation takes place, the cabecera becomes the focal point of change. Wagley (1969:55) mentions cases where municipios have been reformulated by the national government, but the Maya continue to use the older formulation as the basis of social interaction. Hunt and Nash (1967:273) point out that in some cases, the strongest sentiment of belonging may be focused on one of the subunits of the municipio. The revised census figures show that every municipio in the country has some Indian population. Although some of these populations are relatively small, it refutes the impression sometimes given by the literature of the disappearance of the Maya from some parts of the country.

Demographic Density of the Mayan Groups

Simmel (1950:87-100) has shown the importance of group size for a number of social processes. There is rather wide range of sizes of Mayan groups in the municipios. Table 2 presents this information in two sections. The first part employs a scale of 500 up to 5,000. The second part summarizes this information and continues using a scale of 5,000. As seen in the last column, the Maya have both small and large groups regardless of what arbitrary definition one wishes to use for this classification: 14% of the municipios have populations of less than 500; 7.1% have populations over 25,000. San Pedro Carcha in Alta Verapaz and Guatemala City have the two largest concentrations; however, the Maya comprise only 10% of the Guatemala City population.

TABLE I

REVISED MAYAN POPULATION, GUATEMALAN

YEAR	REVISION POPULATION	REVISION % NATIONAL POPULATION	CENSUS % NATIONAL POPULATION
1950	1,611,928	56.2	53.6
1964	2,185,679	50.3	42.2
1973	2,680,178	48.0	43.8
1980	3,200,393	47.3	-

TABLE 2
Municipios by Size of Indian Population, by Region, 1973

INDIAN POPULATION	REGION: Metropolitan Municipios		South Coast Municipios		Western Highlands Municipios		Eastern Highlands Municipios		Northern Sector Municipios		TOTAL		
	#	%	#	%	#	%	#	%	#	%	#	%	C%
1 - 499	3	23.1	4	7.8	1	.6	32	51.6	5	31.2	45	14.1	14.1
500 - 999	3	23.1			7	3.9	6	9.7	2	12.5	18	5.6	19.7
1000 - 1499	1	7.7	4	7.8	7	3.9	4	6.5			16	5.0	24.7
1500 - 1999			4	7.8	6	3.4	2	3.2	2	12.5	14	4.4	29.1
2000 - 2499			7	13.7	7	3.9	2	3.2	2	12.5	18	5.6	34.7
2500 - 2999			3	5.9	9	5.0	1	1.6			13	4.1	38.8
3000 - 3499			2	3.9	7	3.9					9	2.8	41.6
3500 - 3999			2	3.9	6	3.4					8	2.5	44.1
4000 - 4499			1	2.0	5	2.8	1	1.6			7	2.2	46.3
4500 - 4999					3	1.7	1	1.6	1	6.3	5	1.6	47.8
1 - 4999	7	53.8	27	52.9	58	32.6	49	79.0	12	75.0	153	47.8	47.8
5000 - 9999	3	23.1	12	23.5	53	29.8	5	8.1	1	6.3	74	23.1	71.0
10,000 - 14,999	1	7.7	8	15.7	18	10.1	3	4.8	3	18.8	33	10.3	81.3
15,000 - 19,999			2	3.9	24	13.5	3	4.8			29	9.1	90.4
20,000 - 24,999			2	3.9	5	2.8	1	1.6			8	2.5	92.9
25,000 - 29,999					7	3.9					7	2.2	95.1
30,000 - 34,999					7	3.9	1	1.6			8	2.5	97.6
35,000 - 39,999					1	.6					1	.3	97.9
40,000 - 44,499					1	.6					2	.6	98.5
45,000 - 49,999					2	1.1					2	.6	99.1
50,000 - 54,999					1	.6					1	.3	99.4
55,000 +	1	7.7			1	.6					2	.6	100.0
TOTAL	13	100.0	51	100.0	178	100.0	62	100.0	16	100.0	320	100.0	

Guatemala is a country of diverse regions. Table 2 also examines the demographic density of the Mayan groups in the various regions. A five-fold regional classification has been used. 1) The Metropolitan area consists of the municipios in the department of Guatemala. They are influenced by their proximity to Guatemala City and for this reason have been separately classified. 2) The South Coast area is the municipios in the departments of Escuintla, Suchitepequez and Retalhuleu along with the municipios of Ayutla, Ocos and Pajapita in San Marcos; Coatepeque and Genova in Quezaltenango; Chiquimulilla, Taxisco and Guazacapan in Santa Rosa; Moyuta and Pasaco in Jutiapa. 3) The Western Highlands consist of the departments of Sacatepequez, Chimaltenango, Solola, Totonicapan, Huehuetenango, Quiche, Alta Verapaz, Baja Verapaz and the remaining municipios in Quezaltenango and San Marcos. 4) The Eastern Highlands are the departments of Progresso, Zacapa, Chiquimula, Jalapa and the remaining municipios in Santa Rosa and Jutiapa. 5) The Northern region is the departments of Peten and Izabal. Table 2 shows regional variation in the density of the Mayan groups. The highest density is in the Western Highlands with 67% of the municipios having Indian populations of more than 5,000. The area of lowest density is the Eastern Highlands with 52% of the municipios containing Indian populations of less than 500 and 79% with less than 5,000. The Northern sector resembles the Eastern Highlands with 75% of its municipios having Indian populations of less than 5,000. The South Coast and the Metropolitan areas are intermediate.

Cultural Change Among the Maya

The over 3 million Maya in Guatemala are not a homogeneous group. There is variation of Mayan customs between the different municipios. But, more importantly, Mayan groups are changing by adapting themselves to the national culture. Indian identity is retained while assuming some Ladino traits. Therefore, to further develop our demographic survey of the contemporary Maya, a system of classifying the Maya of the various municipios by their degree of acculturation is needed. Such an instrument has been developed in the previously mentioned monograph. Here a brief description of it will be presented as a prelude to employing it in the demographic survey.

Two to six of every 1,000 Maya each year cease to identify themselves as Indian and become Ladino (Early 1975:266). However, many Maya adapt some Ladino traits while retaining Indian identification. The process usually begins with the economic adaptation of a land-short peasantry to the national culture in order to survive. Economic involvement gradually sets up pressures for further adaptation and more acculturation. Important changes are taking place in the traditional Mayan culture as it evolved in the late colonial and early national periods. The process is a gradual one and marked by stages. An operational criterion to mark these stages in the municipios will provide the needed analytical instrument. A search was made of the ethnographic literature in conjunction with the revised variables of the data base. It showed that the percentage of Indian women in a municipio who retain Indian dress (either traditional or generalized) provides such a criterion. A four-fold classification was developed. Municipios with a score of 90% or more of women using Indian dress are called the pressured traditional type. The remainder of the scale could be cut by 10% intervals yielding ten types;

however, a small number problem would arise. Therefore, it was decided to form 30% intervals over the remainder of the scale giving three more types: 89% to 60% usage is called the adaptive type; 59% to 30% usage is called the modified type; and, 0% to 29% is called the ladinoized type.

The pressured traditional municipios include two subtypes as indicated by the name. On the first subtype some municipios are still traditional with 90% or more of both men and women using Indian dress. Other communities are presently under change pressures as indicated by a low percentage of men retaining Indian dress although over 90% of the women do so. These communities are usually involved in wage labor outside the municipio due to internal land shortage and are "pressured" for this reason. Five to ten percent of the Indian population over seven may be literate. Pluralism begins in these communities. Protestant and Catholic Action groups make their appearance in small groups. The Principales are still important, but they now represent the dominant traditional faction rather than the whole community. They no longer completely control the civil hierarchy.

In the adaptive type, agriculture is still important, but about 50% of it is cash crop rather than subsistence. Hinshaw's (1975) research in Panajachel is an excellent study of this type. The literacy rate rises to 50%. The civil offices as designated by the national law are the town authority. The Protestant and/or Catholic Action groups have become important segments of the community. Also, many appear to be semi-secularized in their world view. The Principales and the religious hierarchy are still present, but now represent a minority view.

In type three or the modified community, the above tendencies continue to develop. There are no ethnographic studies of these communities since 1950. San Luis Jilotepeque (Gillin 1951, Tumin 1952) falls in this classification, but the field work dates from the 1940s. Since there were fewer possibilities at that time for Indian involvement in the national culture, the picture presented by San Luis does not appear applicable.

In type four or the ladinoized type, acculturation is well-advanced. Smith's (1977) study of the town of San Pedro Sacatepequez in San Marcos appears to represent this type. (The municipio falls in type three, but Smith (1977:103) stresses the contrast between the cabecera and outlying areas.) Here agriculture lags far behind commerce in importance. Protestantism, national Catholicism and secularism are the world views with little left of the traditional Mayan. The Principales and the civil-religious hierarchy disappeared a number of years ago. There is a high degree of literacy and interest in education. A strong distinction is now made by the Maya themselves between the "naturales" or traditional Mayan corn farmers of type one and the "civilizados" or the acculturated, educated Maya of type four. Acculturation to Ladino and national culture is well-advanced, but ethnic identity is retained. Most of the communities of this type are in the Eastern Highlands and have not been studied. It is not clear how representative San Pedro Sacatepequez is of this type since it is in the Western Highlands. The high degree of ethnic identity may be influenced by the historical rivalry with the neighboring Ladino town of San Marcos.

The classification of Mayan municipios was then validated. Employing the revised data base, the typology discriminated in a predictable manner from variables: Mayan fertility, Mayan mortality, the percentage of the municipio population that is Indian, and intratype percentage of ethnic misclassification by the last three national censuses. With the validation process, the classification becomes an analytical typology. It should be considered a probability model. No claim is made that all problems of measurement and estimation are resolved by the revision methodology. However, the greater the number of municipios employed in any analytical problem, the greater is the cancellation effect. Here the typology is employed in the demographic survey of the contemporary Maya and some of the methodological implications of this survey for future ethnographic work.

Table 3 shows the distribution of the municipio Indian populations between the four types during the years of the last three national censuses. There is an inversion of some expected values between 1950 and 1964 reflecting the ethnic problems of the 1964 census as detailed in the monograph. Nevertheless the overall trend is evident. By 1973, there had been a substantial decline in the number of pressured traditional municipios and a significant increase in the modified and ladinoized types. Only a third of the Indian population of the country belongs to the pressured traditional type from over one-half at the two previous census periods.

The distribution of the types over the five regions is shown in tables 4 and 5. Table 4 shows the distribution for the municipios. The pressured traditional type dominates in the Western Highlands in all three periods even though there was a substantial decline in 1973. This is the heartland of the traditional Mayan culture. The table clearly shows the impact it is having on the traditional culture. Most of the Maya of the Eastern Highlands had substantially changed before 1950. However, the tables show that even with this change, a number of Indians in this region still retain Indian identity. The ladinoized type also predominates in the Northern sector. The South Coast shifted from a predominance of the adaptive type to the modified type in 1973. The area around Guatemala City is marked by the predominance of the ladinoized type although San Juan and San Pedro Sacatepequez have retained many traditional elements in spite of their proximity to the capital. Table 5 is essentially the same table as 4, but population figures are used instead of the number of municipios. Some of the percentages are substantially different from the municipio table because of the small number of municipios in some regions and the significantly different sizes of Mayan populations in the municipios. In the Eastern Highlands the large Chorti municipios centered on Jocotan are responsible for some important shifts in the percentages. The metropolis and the Northern sector have some large variations because of the small number of municipios. The survey data presented in tables 2, 4 and 5 show for the first time the distribution of the Mayan population in Guatemala by size of the group, region and degree of acculturation.

TABLE 3

Acculturation Classification by Number and Percentage of Municipios and Indian Population, 1950, 1964, 1973

Types	1950				1964				1973			
	Municipios		Population		Municipios		Population		Municipios		Population	
	#	%	#	%	#	%	#	%	#	%	#	%
1. Pressured-Traditional	117	37.6	898,944	54.7	140	44.0	1,441,404	61.8	82	25.6	1,032,586	36.2
2. Adaptive	81	26.0	511,978	31.2	61	19.2	482,331	21.1	80	25.0	888,611	31.2
3. Modified	29	9.3	102,630	6.2	39	12.3	225,308	9.9	58	18.1	583,470	20.5
4. Ladinoized	84	27.0	129,350	7.9	78	24.5	165,921	7.3	100	31.3	345,067	12.1
TOTAL	311	100.0	1,642,902	100.0	318	100.0	2,284,964	100.0	320	100.0	2,849,734	100.0

TABLE 4

Acculturation Typology by Number of Municipios by Region; 1950, 1964, 1973

Municipios

Acculturation Types	Metropolis #	Metropolis %	South Coast #	South Coast %	Western H. #	Western H. %	Eastern H. #	Eastern H. %	North C. #	North C. %	Total #	Total %
1950												
1. Pres.-Tradit.	3	23.1	7	14.0	105	61.0	1	1.6	1	6.7	117	37.6
2. Adaptive	3	23.1	23	46.0	50	29.1	2	3.3	3	20.0	81	26.0
3. Modified	1	7.7	7	14.0	11	6.4	6	9.8	4	26.7	29	9.3
4. Ladinoized	6	46.2	13	26.0	6	3.5	52	85.2	7	46.7	84	27.0
TOTAL	13	100.0	50	100.0	172	100.0	61	100.0	15	100.0	311	100.0
1964												
1. Pres.-Tradit.	5	38.5	11	22.0	122	68.9	-	-	2	12.5	140	44.0
2. Adaptive	1	7.7	24	48.0	30	16.9	4	6.5	2	12.5	61	19.2
3. Modified	1	7.7	9	18.0	22	12.4	2	3.2	5	31.3	39	12.3
4. Ladinoized	6	46.2	6	12.0	3	1.7	56	90.3	7	43.8	78	24.5
TOTAL	13	100.0	50	100.0	177	100.0	62	100.0	16	100.0	318	100.0
1973												
1. Pres.-Tradit.	3	23.1	3	5.9	75	42.4	-	-	1	5.9	82	25.6
2. Adaptive	2	15.4	14	27.5	59	33.3	2	3.2	3	17.6	80	25.0
3. Modified	1	7.7	19	37.3	30	16.9	4	6.5	5	29.4	58	18.1
4. Ladinoized	7	53.8	15	29.4	13	7.3	56	90.3	8	47.1	100	31.3
TOTAL	13	100.0	5[illegible]	100.0	177	100.0	62	100.0	17	100.0	320	100.0

TAB

Acculturation Typology by Indian Population by Region; 1950, 1964, 1973

	Acculturation Types	Metropolis pop.	Metropolis %	South Coast pop.	South Coast %	Western H. pop.	Western H. %	Eastern H. pop.	Eastern H. %	North C. pop.	North C. %	Total pop.	Total %
	1950												
1.	Pres.-Tradit.	35,892	43.0	35,284	18.5	808,689	68.1	16,408	9.9	2,671	18.1	898,944	54.7
2.	Adaptive	44,240	53.0	120,070	63.0	321,088	27.0	18,177	10.9	8,403	57.0	511,978	31.2
3.	Modified	646	.8	19,870	10.4	31,393	2.6	49,646	29.8	1,075	7.3	102,630	6.2
4.	Ladinoized	2,744	3.3	15,397	8.1	26,304	2.2	82,333	49.4	2,582	17.5	129,350	7.9
	TOTAL	83,522	100.0	190,611	100.0	1,187,474	100.0	166,564	100.0	14,731	100.0	1,642,902	100.0
			5.1		11.6		72.3		10.1		.9		100.0
	1964												
1.	Pres.-Tradit.	63,826	49.8	63,049	24.2	1,269,088	76.0	-	0.0	15,441	46.5	1,411,404	61.8
2.	Adaptive	61,113	47.7	141,772	54.4	226,469	13.6	45,566	23.5	7,411	22.3	482,331	21.1
3.	Modified	1,095	.9	46,154	17.7	157,636	9.4	17,353	9.0	3,070	9.3	225,308	9.9
4.	Ladinoized	2,049	1.6	9,857	3.8	16,089	1.0	130,664	67.5	7,262	21.9	165,921	7.3
	TOTAL	128,083	100.0	260,832	100.0	1,669,282	100.0	193,583	100.0	33,184	100.0	2,284,964	100.0
			5.6		11.4		73.1		8.5		1.5		
	1973												
1.	Pres.-Tradit.	62,904	36.3	11,268	3.4	946,061	46.1	-	0.0	12,353	19.3	1,032,586	36.2
2.	Adaptive	15,738	9.1	104,039	31.3	728,749	35.5	10,117	4.5	29,968	46.8	888,611	31.2
3.	Modified	90,308	52.2	157,539	47.4	285,289	13.9	42,755	18.9	7,579	11.8	583,470	20.5
4.	Ladinoized	4,159	2.4	59,842	17.7	93,998	4.6	172,931	76.6	14,137	22.1	348,067	12.2
	TOTAL	173,109	100.0	332,688	100.0	2,054,097	100.0	225,803	100.0	64,037	100.0	2,849,734	100.0
			6.1		11.7		72.1		7.9		2.2		100.0

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Appendix C

Municipios Recommended as Sites of Experimental Programs

In accordance with the general strategy previously outlined for types of municipios in which to initiate the program, survey data as provided by the 1973 census and revised by the writer were employed. The computer data of social indicators for the 95 municipios in the departments of Sacatepequez, Chimaltenango, Solola, Totonicapan, Quezaltenango and southern Quiche were examined. The municipios of Momostenango and San Bartolo in Totonicapan are combined because of data difficulties. The municipios in San Marcos, Huehuetenango and Northern Quiche were not considered at this time because these areas are located at the periphery of the road network and therefore not considered suitable areas to initiate the program. (This was decided in consultation with APROFAM).) Within the area of consideration, the six municipios containing the cabeceras departmentales were also eliminated as being urban concentrations. The selected sites for the Indian program should have a distinctive Indian character. Accordingly fifteen municipios whose Indian population was less than 70% of the total municipio population were removed from consideration. This leaves 74 municipios in the western highlands as possible sites for the initiation of the Indian family planning program.

Two criteria will be examined to indicate the degree of change in a municipio: 1) the percentage of Indian women who no longer retain Indian dress; 2) the percentage of female literacy in a municipio. There are data base difficulties with both these variables and they have not been combined into a single index. Therefore two lists will be produced with a certain amount of overlap between them. Sr. Mondloch employing these lists will personally survey the communities to check on possible errors in these indicators

as well as local community needs and any special problems about locating a program. These lists are merely a first-step winnowing of a large number of possibilities. Ultimate determination will be made by APROFAM based on site visits.

Classification Based on Female Use of Indian Clothing

This criterion and the formation of a four-fold typology are explained in Appendix B. It is a probability model since no all defects in the original census data have been eliminated by the revision process. Table C-1 shows the distribution of the 74 municipios by acculturation type by department. The traditionalism of the western highlands is shown with 56.8% of the municipios falling in this category. The modified and ladinoized types contain the more acculturated Indian groups by this criterion. Therefore the municipios in these two categories are suggested as sites for examination to initiate the family planning program. These are listed in table C-2 along with some of their demographic characteristics.

Female Literacy Scores

Another criterion to select municipios is female literacy. The difficulty with this variable is that only the percent literate of all females in a municipio is available, not the percent literate of Indian females which would be the desired criterion. There are considerable difficulties with misclassification of the Indian population in the Guatemalan censuses (confer Early 1974 and chapter XIV of manuscript). While acceptable population revisions can be derived, there does not appear to be any satisfactory method for a revised Indian literacy count. There is a relationship between the percentage of the municipio population that is Indian and the municipio female literacy percentage. The higher the percentage the Indian population is of the total municipio population, the more the total female literacy percentage approximates the Indian

Table C-1 - 74 Western Highland Municipios by Acculturation Typology by Department

Department	Acculturation Typology				Total
	Pressured Traditional	Adaptive	Modified	Ladinoized	
Sacatepequez	3	2	4	1	10
Chimaltenango	7	3	2	-	12
Solola	12	6	-	-	18
Totanicapan	5	1	-	-	6
Quezaltenango	9	6	2	-	17
S. Quiche	5	4	1	-	11
TOTAL	42	22	9	1	74
%	56.8	29.7	12.2	1.4	100

Table C-2 - Ladinoized and Modified Municipios By Acculturation Typology

	Est. 1980 Indian Population	% Indian Population	% Female Literacy
I. Ladinoized Type			
Sacatepequez			
Magdalena Milpas Altas	3,216	92.2	51.0
II. Modified Type			
Sacatepequez			
San Miguel Duenas	3,799	72.5	48.7
San Maria de Jesus	8,684	98.8	19.7
Alotenango	7,806	84.0	35.9
San Bartolome Milpas Altas	1,703	94.2	71.1
Chimaltenango			
Yepocapa	11,985	74.6	23.4
Pochuta	12,315	84.5	20.3
Quezaltenango			
Colomba	37,584	90.6	31.9
Genova	16,932	72.1	24.1
Southern Quiche			
San Pedro Jocopilas	14,295	94.1	8.1

female literacy percentage. In an attempt to precision this relationship, a regression was run between these two variables for all 74 municipios, but the r^2 value was found to be very low indicating the relationship was not consistent enough to use this estimation technique. There would be a high probability of averaging away the discrimination that is needed. Consequently a rather simple ad hoc procedure was used. Table C-3 contains the municipio frequency distribution of the percentage female literacy by percentage of Indian population. For each category of percentage Indian population, the municipios with highest female literacy scores were selected. Using approximately an 80% cut-off point, 8 municipios from the 90% group were selected, the top 2 in the 80% group; and the highest in the 70% group. Table C-4 lists the individual municipios. There is an overlap of four municipios between the eleven listed on the acculturation list and ten on the literacy list. It is recommended that the seventeen municipios on these two lists be investigated as possible areas for initiating the family planning program.

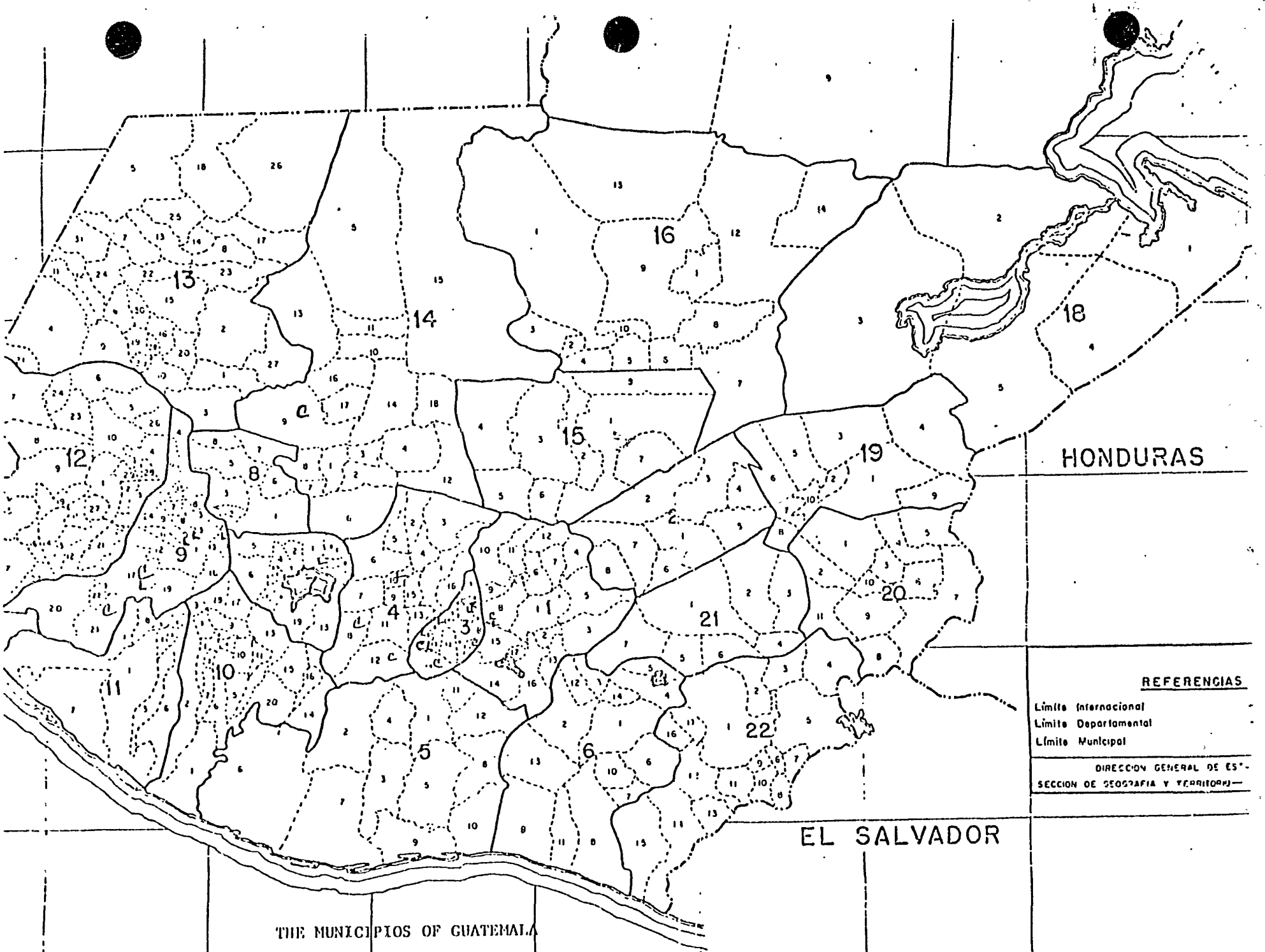
These municipios are coded on a map in Figure 1. It will be noticed that there is clustering. The relatively small department of Sacatepequez gives the greatest number of municipios on both lists including three of the four over-laping municipios. This would suggest this region as an initial area of concentration for the program. The other cluster is the Xela area with the municipios of Cantel, La Esperanza and San Mateo. These two clusters would provide two widely scattered foci for the initial development of the program. If successful, they could be later used as jumping off points for the area which lies between them. However, all this survey work needs field investigation to verify its validity.

Table C-3 - Municipio Frequency Distribution of Percentage Scores of Female Literacy by Indian Population

% Female Literacy	% Indian Population					
	90		80		70	
	#	%	#	%	#	%
0-9	17	29.3	1	11.1	-	
10-19	17	29.3	1	11.1	1	14.3
20-29	16	27.6	3	33.3	4	57.1
30-39	2	3.4	2	22.2	1	14.3
40-49	2	3.4	2	22.2	1	14.3
50-59	2	3.4	-		-	
60-69	1	1.7	-		-	
70+	1	1.7	-		-	
TOTAL	58	100.	9	100.	7	100.

Table C-4 - Municipios With Highest Female Literacy Scores Relative to Percentage Indian Population

	Est. 1980 Ind. Pop.	% Ind. Pop.	% Female Literacy	Acculturation Type
I. 90% + Indian Municipios				
Sacatepequez				
San Bartolome Milpas Altas	1,703	94.2	71.1	M*
San Antonio Aguas Calientes	4,621	97.2	57.7	A
Santo Catarina Barahona	1,388	95.1	66.2	PT
Magdalena Milpas Altas	3,216	92.2	51.0	L *
Chimaltenango				
Santa Cruz Balanya	3,954	96.2	42.4	PT
Quezaltenango				
Cantel	17,274	98.1	42.7	PT
Colomba	37,584	90.6	31.9	M *
La Esperanza	4,829	91.6	33.8	A
II. 80% Indian Municipios				
Solala				
Panajachel	4,012	80.8	42.0	A
Quezaltenango				
San Mateo	1,477	83.7	47.5	A
III. 70% Indian Municipios				
Sacatepequez				
San Miguel Duenas	3,799	72.5	48.5	M *



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C - clothing criterion L - literacy criterion (best read with magnifying glass)