ENVIRONMENTAL AND SOCIAL TECHNICAL ASSISTANCE PROJECT (ESTAP) REPORT:

A SERIES OF STUDIES ON CULTURE AND DEVELOPMENT IN THE SOUTHERN REGION OF BELIZE

REPORT OF A CONSULTANCY

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July 21, 1999

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DEDICATED TO THE MEMORY OF CHARLES WRIGHT

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PREFACE

I am happy to acknowledge the contribution of several persons in carrying out this study. Both Mr. Fred Hunter Jr. and Ms. Lucia Ellis were very supportive together with other staff persons at ESTAP, especially Ms. Eva Middleton and Mr. John McGill. Mr. Ricardo Moreno IDB Consultant gave some helpful advice. Mr. Harold Arzu both before he joined ESTAP and afterwards was a worthy colleague.

Many persons in the Toledo District were ready to talk with me and share advice. The participants in the Workshop taught me more than I did to them.

I am honoured to dedicate this report to the memory of the late Charles Wright. He was a stalwart defender of Toledo to his dying breath. Two of his manuscripts, which I received from John McGill, have become his indomitable voice even after his death. In including them as appendix to this report I am bringing them to a wider audience, a process that needs to be continued.

Joseph O. Palacio
July 21, 1999

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SUMMARY

This consultancy arises from the genuine concern of the ESTAP management to appreciate the social and cultural characteristics of the target population in the Southern Region. To put it in analogous terms the society and culture were parts of a black box whose illumination would greatly facilitate ESTAP's exercise of drafting a regional plan for the southern portion of Belize. The consultancy includes three perspectives on illuminating the black box. They are

development projects for the region drafted by foreign public officers and implemented by their technical experts; the views of twelve select community leaders drawn from six communities; and the views of staff persons and community leaders participating in a workshop.

The first task was a review of nine projects implemented in the Southern Region between 1953 and 1996. Because we could not find in Belize adequate details of the Projects, I had to rely on brief narrative descriptions. These showed that with the exception of two, the Forest Planning and Management Project (FPMP) and the Natural Resource Management Project (NARMAP), all have been failures in meeting the stated objectives of transforming the economic well-being of the Maya. The review includes the context within which the Projects were conceptualized. It ends with five assumptions built into the Projects, which had negated the possibility of any success from the time of initial project drafting.

The second study presents a perspective usually overlooked in reviews, which normally deem as important only technical experts and community groups. It is on the opinion of select individuals. It showed firstly what they thought about ESTAP and secondly their anticipation on how comprehensively the highway will impact their daily lives. It also introduced an opportunity to spotlight cognitive and affective aspects within their socio-psychology. These in turn amplified an appreciation of their society and culture.

The third study was a workshop mounted among community leaders and staff persons from ESTAP and the government. Its contribution was to demonstrate how the participants regard their cultural institutions as intermediaries for development and how they see themselves as agents for development.

Starting from a viewpoint of the social and cultural dynamic being a black box, the consultancy ends with several ways of illuminating into it and projecting it in terms understandable by the people and development agents. In the end the report presents a summary of lessons learned and recommendations for further action. The recommendations follow the theme of the study on how to continue retaining a firm grasp on understanding society and culture in the Southern Region. The following is a summary of the recommendations.

1. Anthropological expertise – ESTAP should recruit an anthropologist, especially given its focus on cultural integrity and other aspects of peoples' involvement.
2. Extension into other parts of the Region – ESTAP should mount a similar study like this with a focus on the non-Maya inhabited portion of the Southern Region.
3. Unique Culture – Agencies and persons need to be enculturated to Southern values as part of their introduction to the Region.
4. The entirety of the culture needs to be taken into consideration when intervention is being planned. Some areas that we have identified include cultural institutions, technologies used in milpa and other food generating systems, cognitive and affective aspects of the socio-psychology, and social structure and organization.
5. There is a need to do studies that could generate reasonably adequate indicators of the impact surrounding the already resurfaced portion of the highway. This would be most helpful in carrying through current planning efforts. It could also be a control factor against the high anticipation that seems to currently prevail among people.

6. There is a need for continued work on cultural institutions to deepen the fruitful analysis achieved at the workshop.
7. The experiences of community leaders should be elicited as examples of endogenous contribution towards regional planning
8. Sundry Recommendations from the Workshop**:**
    1. To form a multicultural council whose function would be to –

- Resolve issues with potential for conflict
- Enhance solidarity on topics of vital importance, such as the land issue
- Establish commonalties
- Be a forum for project planning, project proposals, etc.

    2. Individual councils should become more strong in their own self-appreciation
    3. There should be support for the councils
    4. There is a need to redefine the term “indigenous” to be more in keeping with the realities of the people in the district.
    5. Communities should evaluate agencies that want to work with them

Chapter 1

THE STUDY

The Scope

The ESTAP is designed to produce a regional plan that will help mitigate the impact of resurfacing the Southern Highway. The Project life span is from 1997 to 2001. This consultancy falls within the deliberate focus on social and cultural factors found within the specific objectives of ESTAP. They are the following.

1. Design and implement a regional development plan and propose a set of policies and institutional arrangements that, while catalyzing development, recognize the need to safeguard the rights, assets and cultural integrity of the peoples in the region.
2. Increase public participation of affected communities in planning and decision making for land use and development.
3. Improve regional protected areas management and environmental protection from adverse impacts resulting from accelerated growth.
4. Support governmental, NGO, and community based organizations in activities, which contribute to maximization of resource allocation and the benefits of development for the population of Southern Belize.

Phrases from the specific objectives that highlight the significance of social and cultural factors include:

- "recognize the need to safeguard the rights, assets and cultural integrity of the people in the region"
- "increase public participation of affected communities"
- "support NGO and community based organizations"

A review of development projects further below will show that such comprehensive emphasis on the people's well-being and input is rare.

The background condition predicating the need for the consultancy was revealed in discussions that I had with Mr. Fred Hunter Jr. Project Manager of ESTAP and Ms. Lucia Ellis Social Planner in April 1998. They indicated that there was a need to generate greater participation from the target communities to further the work of the Community Participation Unit (CPU). They added that having an awareness of the prevailing social and cultural background would help them as facilitators as well as the leaders of the communities with whom they have to interact. My response was that there was need to temper the expectations from my intervention as an anthropologist. The reason is that the tools of anthropological research have a distinct empirical basis arising from intense involvement in the field. I added that the input expected from me would be limited primarily to the review of secondary sources and my circumscribed field participation, as spelled out in the contract. **In short, my participation was no substitute for having a resident social anthropologist within the ESTAP complement. This is one of the recommendations that I will make further below**.

Consultant Terms of Reference

The aim of the study is as follows.

- To determine the social/cultural structures in the Southern Region and relate their influence on development/underdevelopment to the planning process being undertaken by ESTAP

The specific objectives are:

1. Review all existing documentation and information presently available referring to the cultural underpinnings of development/underdevelopment in Toledo and Stann Creek Districts using as reference the several development projects and studies that have been attempted there within the past three decades.
2. Conduct interviews with accepted leaders and scholars of groups local to the Southern Region of Belize and document their observations and experiences.
3. Design a one week training session with the ESTAP staff and ESTAP community representatives on sensitivity to cultural aspects of development in the Southern Region so as to improve their capacity for data collection, analysis, and planning.
4. Present findings, conclusions, and recommendations at one or more debriefings with the Project Steering Committee, ESTAP staff and other officials and counterparts.
5. Deliver a report containing a list of observations and recommendations that will assist in the formulation of the Regional Development Plan for the Southern Region and identify, as much as possible, cultural and non-cultural factors that contributed to the success or failure of past projects and that may affect ESTAP.

In Chapter 2 I cover the first task mentioned above; Chapter 3 the second; and Chapter 4 the third. In the final chapter I discuss the lessons learned and recommendations.

The field trips took me to the Southern Region for specific tasks. The most challenging was the workshop in late January 1999 where I performed the role of main facilitator. During other trips in February I did interviews with community leaders. Finally, I went to Placencia March 18 and 19, 1999 to participate as presenter in briefing members of the Project Steering Committee about progress in the consultancy. For more detail on my itinerary see Appendix 1.

Performance of the Tasks

1. Culture, Development, and Regional Planning

It is appropriate to state some operational definitions at the outset. Culture refers to learned behaviour. Because of the multiplicity of ethnic groups among Southerners and their overt concern on multiculturalism, much of the bias in this study will be on ethnic cultures. The various sub-studies define their own frame of cultural reference. On projects the focus is on the economic systems mainly of the Maya. From the interviews there are extrapolations on the socio-psychology of the Garifuna, Maya, and others. From the workshop there is a spotlight on cultural institutions found in all cultures and the leadership experiences of persons from different groups.

Development is the investment of resources to provide basic needs for the disadvantaged. While this is the traditionally economics-driven perspective, there has been considerable concern that the socio-culture supersedes the economic. It is a primary aim of this study to argue on the socio-culture side of the debate. Development by itself is not the fundamental concern of ESTAP; rather it is regional planning. However, the same debate is pertinent on the economic *versus* the socio-culture. Again, from the aims and objectives of ESTAP it is clear that they have given the socio-culture overwhelming concern. The study, therefore, contributes toward this thrust.

2. Sources of Materials

For the review of the Projects archival research in government offices in Belmopan was partially helpful. It gradually became obvious that getting specific information about the Projects – their periodic assessments, end-of-term reports, financial reports, and so on – was very difficult. Either the documents were here in arcane places which we could not access; or they did not exist in Belize. The latter was more probably the case, as there was little transparency and public accountability in the execution of the Projects. Being primarily foreign funded and implemented, their documentation also did not have to remain in Belize. It would be the logical conclusion to the lack of Belizean ownership patent in most of the Projects, especially those predating the 1990's.

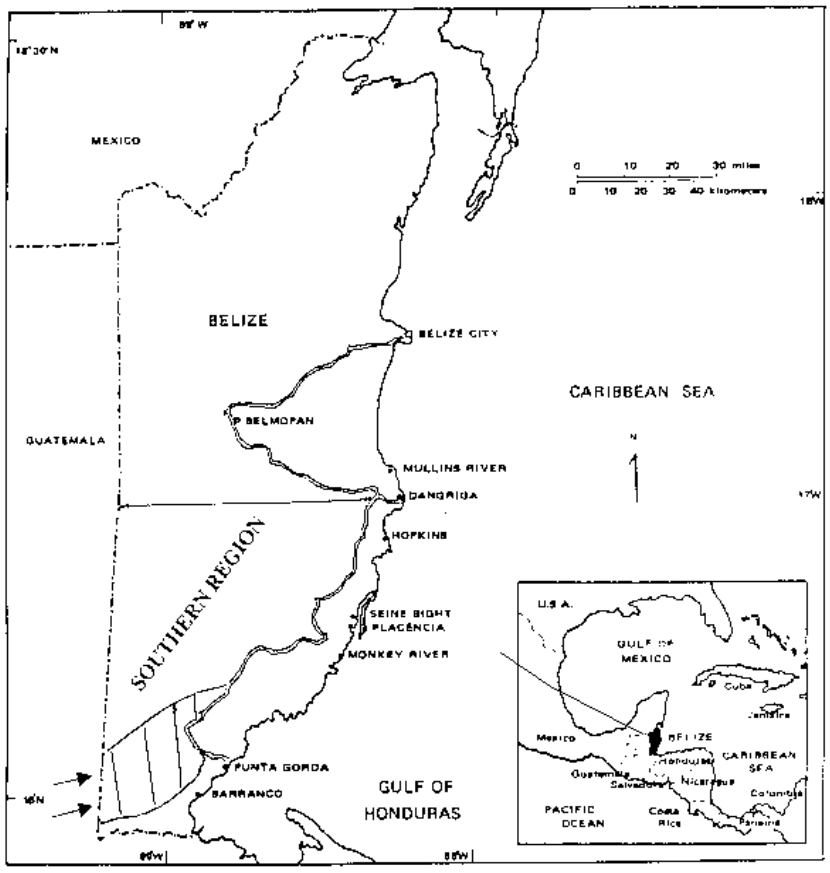
For information about other studies done by social scientists in the Southern Region and found in the last chapter I relied on the National Library, the National Archives, and the University Centre Library. I need to make special mention of materials that members of the ESTAP staff, on becoming aware of my work, gave me. I refer especially to two draft reports loaned to me by Mr. John McGill written by the late Charles Wright on the impact of development projects on the Toledo District. I rely on them greatly for my review of projects in Chapter 2. Also helpful was a debt assessment that Dr. James Thompson wrote in 1999, some ten years after Aguacate farmers had received loans through the Toledo Small Farmers Development Project (TSFDP).

3. The Term "Southern Region"

I need to explain the use of the term "Southern Region" in the report. It means mostly the Toledo District, and especially the upland southwest portion inhabited by the Kekchi and Mopan (see Fig. 1). This anomaly arises from the fact that the projects I reviewed were based in this area and that the workshop CBO and NGO participants also came mainly from this area. The history of the exclusiveness of development efforts in the South within parts of the Toledo District for the past three decades is something that
ESTAP will have to resolve in view of its mandate to stretch its boundary to the Stann Creek District where the Southern Highway starts. As gesture toward this objective ESTAP management will have to ascertain that studies, critical such as this one about their constituents, will have to be truly global within its domain.

FIGURE 1

Map of Belize Showing the Southern Region and the Subregion Targeted for Development Projects.



CHAPTER 2

REVIEW OF PROJECTS

Objectives

The specific objectives of the review of Projects are:

1. To review several projects that have taken place in the south Stann Creek and Toledo Districts within the past three decades;
2. To explore whether the assumption that the several projects missed their mark is correct; and

3. To show whether a failure to integrate the socio-cultural framework might have been a contributing factor.

Notwithstanding the implicit request for details in the specific objects, this review perforce has had to be less empirical and more theoretical. The reason is that details of most of the Projects, which would normally be found in the ample documentation of reports, do not seem to be available in Belize despite our mounting a thorough research in government archives. This report, therefore, becomes the theoretical component of the consultancy in contrast to the next two studies which are more empirical. This by itself is not to deflect from the seriousness of not leaving in the country project reports. Rather it shows what could be salvaged from the little data available in the country.

The Projects encapsulate the perceived wisdom of higher level bureaucrats both in the donor countries as well as in Belize and of technical experts drawn from the former. They reflected the prevailing beliefs on the nature of development assistance to Belize and within the Belize what should be done about the "problem" of the South. In short, the projects provide a panorama of the wealth of thinking associated with theory and theorizing on development within a region and at a given period in time.

The review starts with a brief description of major Projects in chronological order highlighting some successes and failures. The description effectively answers the first two specific objectives, namely to describe the Projects and indicate whether they met their objectives. The rest of the chapter answers the third objective on the lack of integrating the socio-culture into the scope of the Projects.

Profile of Engagement

The issue of not finding reports about many of the Projects raises the larger question to what extent they were integrated into the Belizean culture of public administration. This question is a prerequisite to our main concern in this study on relevance to the culture of the people in the South.

Further below we will see that there is an increasing degree of direct involvement by the government and the people of Belize from the first Projects in the 1940's to the current ESTAP. Indeed, the first projects took place when Belize was still a colony and the United Kingdom government could impose whatever it wanted and for whatever

Table 1

Profile of Engagement in Projects

Projects	Level of Engagement	Comment
Nos. 1-4 in Table 2	Hardly any Belizean involvement	Belize then a colony
Nos. 5-7 in Table 2	GOB informed and some co-sponsorship of projects	Early years before and after independence. GOB and people coming to terms with projects
Nos. 8 -9 in Table 2	GOB actively involved at policy advisory level and actively sharing technical information	GOB and the people informed about the issues
No. 10 in Table 2	GOB, IDB, and the people involved in defining the problem and the need for the project	GOB, NGO's, and CBO's staff the project and manage it

whatever reason. The first break-through came in Projects taking place from the mid-1980's to the mid 1990's when the GOB became actively involved in their policy advisory and cross-sharing technical information. However, the aura of foreign experts was still foreboding to Belizean technocrats; besides the GOB invariably reneged to honour its commitments in project implementation. Blame for failure, therefore, was passed from the Belizeans to the foreigners and *vice versa*; while the people on the ground had to bear the full brunt of un-achieved project objectives. Table 1 has a schema of the gradual engagement of the government and people of Belize in the Projects.

Brief Project Description

The first four Projects were the least funded and the least ambitious in scope.

The first was subdividing twenty one-hundred farm plots for residents of Otoxha and Crique Sarco. The funding of about $6000 came from the UK Land Use Survey during the period 1953 to 1958. It was a direct response to the presumed need to place the Kekchi within their own private farms for permanent cultivation and settlement, thereby limiting their proclivity for swidden agriculture and periodic nomadic dispersion. The plots were surveyed; soils tested; and land allocated into segments for long term management.

The Kekchi provided free labour and seemed willing to participate in the scheme. However, there were two avenues leading toward permanent failure. One was that the corn yield did not produce the large size cobs that the Kekchi prefer. The other was more serious. There was pressure on the new owners to share their newly acquired wealth with relatives coming from Guatemala on hearing of this rare windfall of land and accessories. Eventually the owners gave up and no longer participated in the scheme. **They succumbed to two cultural principles that were conflicting with the thrust of the scheme – the principle of the inalienability of land and of egalitarianism *viz a viz* one's fellowmen**.

The second Project came as small amounts from the annual recurrent funds of the Forestry Department between 1945 and 1954. It was to plant mahogany seedlings in abandoned farmland adjoining Pueblo Viejo and Crique Jute. The objectives were twofold – to provide some cash relief to the farmers, as that department was a primary government operation in the Toledo District at that time and to assist in the goal of forest regeneration. The short-term objective of cash relief was well received. The long-term result is that some of the trees are still in place and have become harvestable.

The third and fourth Projects were feasibility studies funded and implemented by the Land Resource Development Division of the Overseas Development Agency (ODA) of the United Kingdom. The question was whether agricultural development was feasible in the Santa Teresa and the Moho River Cramer estates areas. The amount spent was small, being approximately $3,000. The report was negative. The more lasting outfall was that both Projects became precursor for the most expensive project to take place in the Toledo District with United Kingdom funds.

Table 2
BRIEF DESCRIPTION OF PROJECTS

PROJECTS	OBJECTIVES	RESULTS	DISCUSSION
1.Land Use Survey Demonstration farm plots	Modify Kekchi farming by demonstration plots of 20 100 acres with surveys, etc	Increase in corn yields but quality not acceptable; inflow of kin groups	Kekchi prefer large cobs. Land tenure confronts egalitarianism and indivisibility of land
2. Forestry Dept. reforestation	Rehabilitate abandoned milpa lands with mahogany saplings	Saplings grew and men paid	Small project with limited aims but with focus on agroforestry
3. ODA feasibility	Agricultural development in Sta. Teresa area	Helped lay the groundwork for TRDP	A small feasibility project
4. ODA feasibility	Agricultural development in Cramer estate	Lands found not suitable	A small feasibility project
5. ODA funded TRDP 1976-86	Improved methods of land utilization; gradually extended from Blue Creek to other villages, especially S.P. Columbia	Several studies of soils, plants, etc. Introduced mucuna for soil regeneration	Anthropology study given minimal attention by others. First intersectoral team to include a social scientist
6. USAID VITA TAMP 1988-92	Establish export oriented agriculture and promote improved Maya milpa cropping	Built cacao buying centres; did land terracing; introduced new crops	Integrated approach to intervention. But too much focus on intervention and not sustainability
7. TSFDP funded by IFAD 1989-95	To replace shifting cultivation with settled farming	Limited success; more time spent building theoretical models	Another integrated intervention but limited time and resources for the scale of intervention
8. NARMAP, USAID 1991-96	Mitigate opportunities for incursions into protected areas	Continued work on mucuna; baseline surveys; pest management and post-harvest loss	Systemic national focus on ecological integrity; farmers consulted; limited time for research on soil regeneration
9. FPMP ODA funded 1991-96	Community consultation on forestry management; conducted soil use survey	Positive results achieved in forestry management planning and small grants programme	FPMP clear in its scope. Its forestry management plan a model for the rest of the country
10. ESTAP IDB funded 1997-2001	Drafting regional plan; safeguarding cultural and environmental integrity; increase public participation	Still ongoing	Shows the latest phase in the evolution of development projects in Toledo

On the basis of their cumulative experience in the Toledo District from 1953 and on the request of GOB the ODA tackled the Toledo Research Development Project (TRDP). It lasted from 1976 to 1986 and in all cost about $30 million, an approximate figure given the unavailability of much data on the Project. Unfortunately, it is the Project for which we found the least information. The full story of this major intervention into the Toledo District needs to be told.

According to the draft proposal the main goals of the TRDP were to improve agricultural production and, in turn, rural living standards. Providing alternative cultivation systems to upland milpa practices was the primary form of improving agricultural production. The specific objectives included:

- To raise the income and welfare of rural people in west and southwest Toledo;
- To reduce population pressure, cropping and soil erosion on the steeper uplands of west Toledo; and
- To bring the resources and production of southwest and south Toledo firmly into the sphere of influence of the economy of Belize consistent with established political boundaries.

These objectives were motivated by the concerns over increasing shortage of properly fallowed land; the illegal use of forestry and other national resources; the greater expectation by *milperos* than the surplus income that they can provide; the growing population within the limited reservations; and the increasing danger of erosion.

The Project had three phases:

- 1976-78 selecting pilot farm site
- 1978-80 establishing pilot farm and developing improved techniques
- 1980-86 implementing rural development extension.

The cumulative results of the Project were minimal on the target population, given the scale of the operation. Some innovations were introduced, the most important being the mucuna legume to help increase soil regeneration. It should be added that the Project popularized it as it had already been available on a limited scale in San Antonio. On the other hand, there were several studies that were far more useful to the researchers than to the communities. One researcher whose studies provided leads to the disposition of the Maya to these kinds of innovation was the anthropologist Ann Osborne. However, there was little appreciation of her findings by the other team members.

The next two Projects were the Toledo Small Farmers Development Project (TSFDP) funded by the International Fund for Agricultural Development (IFAD) and lasting from 1989 to 1995 and the Toledo Agricultural Marketing Projecting (TAMP) funded by USAID and lasting from 1988 to 1992. Both followed the lead of the TRDP in attempting to revolutionize the agricultural practices of the Maya from milpa to permanent cultivation. However, they were more comprehensive in scope. They actively interjected changes at several fronts, including new crops and livestock; projecting production for local and foreign markets; soil use techniques like terracing on the hillsides; land management for permanent settlements; efforts to excise private leases from the village reservations; and credit to assist with the new interventions. They did not have the added advantage of longer time and conducting several research studies like the TRDP. But they combined resources from two major funding agencies;

and generated a higher level of expectation by virtue of all the promises and a larger group of target communities.

Again the two Projects were not successful in intervention, given the resources available to them. Probably the most permanent reminder of the TAMP are the remains of several abandoned multipurpose village centres for the processing of cacao, one of the ill-fated crops identified for export. A fall in the international cacao prices made it unattractive for small farmers. There may also be a few identifiable good results from the TSFDP, primarily in the experiences of a few individuals who might have learned from the wide array of interventions. On the other hand, there were also some regrettable experiences. A prime example is the case of farmers in Aguacate village who had been induced to participate in the Project. They had secured leasehold properties from the village reservation; and used the plots as collateral for loans to proceed with other components of the Project. Being unable to pay the loan from failures within the Project, the farmers debt increased with accrued interest. To make matters worse the Development Finance Corporation (DFC), which had given the loan initially has been pressing for repayment in 1999 even threatening foreclosure. For more information on this sorry incident see the ESTAP report written by Dr. James Thompson.

Both TSFDP and TAMP ended in disarray with disgruntled technicians and disappointed farmers. The next two Projects differed considerably from the earlier ones. For one thing they were later and national in scope. The Forestry Planning and Management Project (FPMP) received British funding and extended from 1991 to 1996. The Natural Resource Management Project (NARMAP) took place during the same period but received funding through the USAID and US Private Voluntary Organizations (PVO's) with dedication to environmental preservation. For both the aim was to generate public consciousness on the limitations of natural resources and for communities to so plan their exploitation. This general aim translated into complementary objectives for the Toledo District. For the NARMAP it was to generate intensive cultivation practices for communities fringing the Columbia Forest Reserve thereby becoming less tempted to make milpa incursions into the forest reserve. For FPMP it was social planning within the same communities for projected community forestry programmes.

Because the objectives were less intrusive into the social and economic systems of the Maya and, indeed, were complementary toward the traditional Maya ethic of maintaining reciprocal relations with their rainforest ecology, both Projects had more significant results than the former. The NARMAP focus on legumes as primary contributors toward soil regeneration was accepted. The failure was not having enough time to do more research on the whole question of soil regeneration at the time when the Project was coming to an end. In the area of national land use planning NARMAP generated considerable base line demographic and production profiles for both the Toledo and Stann Creek Districts. The data was handed over to the Ministry of Natural Resources in Belmopan.

In the case of the FPMP the plan for forestry management in the Columbia Forest Reserve was completed together with a component for community forestry. In linking this significant achievement with that of NARMAP it is necessary to add that both projects brought a renewed meaning for community participation by soliciting and including the opinion of the villagers in their decision making. It is worth mentioning that the ground swell of grassroots opinion against the government licenses to the Malaysians for logging in Toledo came partly

because of the increased public awareness generated by these Projects. The public was better able to see the patent contradiction between the need to manage forest resources on the one hand and on the other for the government to award licenses with little consultation with the surrounding communities.

The last Project that I present for review is the ESTAP. It is not yet finished so it is not subjected to the same level of scrutiny. The main reason to include it is to show where it fits within an evolutionary frame of projects that have received substantial funding from the outside. They started between the 1950's and 1980's with a focus on agricultural transformation and proceeded in the early 1990's with a focus on natural resource management. By the late 1990's the focus has changed to regional planning in response to a major intrusion into the overall well-being of the people in the South, namely the resurfacing of the Highway.

The significant observation from the ESTAP for the purposes of this study has been the milepost in social and cultural awareness that it has generated within its frame of operation. They include:

- specifically highlighting the cultural integrity of the people as a guiding principle;
- introducing a distinctly Belizean character into its management and operation, including staff who themselves are from the region;
- attempting to include the Stann Creek District within its target area;
- including specific allocation for community involvement, such as providing funding for their projects;
- working towards a regional plan using modern research methods. It will be the first comprehensive regional planning effort for the whole country; and
- commissioning this study to critically examine where the social and cultural perspective did not fit within previous projects.

So far I have achieved the first two specific objectives of the first task in this consultancy. They are to review main projects in the ESTAP region and to explore whether the assumption that they missed their mark is correct. We have seen that by and large they did miss their mark. The third objective – whether a failure to integrate the socio-cultural framework may have been a contributory factor to their lack of success – needs to be examined. At first it is tempting to answer in the affirmative on the strength of the previous description of the Projects. Such response, however, would not be adequate given the need to analyse critically the impediments for success for ESTAP and other projects that will inevitably follow in the South. There is, therefore, a need to discuss some false assumptions – many of which concerned the culture of the peoples of the South, primarily the Maya – that were integral to the very conceptualization of the projects. But before that there is a need to discuss briefly the historical context within which the projects fit.

Philosophically the Projects have fitted into a debate that raged in the country in the early 1950's on what development path to take – whether to continue with forestry logging, which had been the colonial economy mainstay for centuries or to launch into export agriculture, a direction heavily promoted in the Jack Downie Report. The advocates of export agriculture won. Hence, the phenomenal growth that took place in the sugar and citrus industries in the 1960's and 1970's and subsequently in banana. Unfortunately, the extreme south and southwest portions of the

county did not participate in this growth. The government grew quite concerned and tried to stimulate agricultural growth in several ways, including the development projects listed in this study.

It is also necessary to mention briefly some of the more pressing conditions contemporaneously taking place within the Central American geo-politics. In the 1970's Guatemala made several efforts to recoup Belize as part of its national territory, including planning a major military intervention. In the end, it persisted on the hand over of territory within the Toledo District as a final sweetener for an agreement. The British economic development assistance within the district was, therefore, an effort to ascertain that there was some growth taking place, to help Belize make the argument that indeed Toledo was not an abandoned part of the country and could not be given to Guatemala. A more pervasive problem but totally beyond the specific conditions in Belize was the United States concern in the 1980's to contain communism in Central America by military strategy and economic development assistance to front-line countries including Belize. USAID contribution to TAMP was only one of other direct involvement's in the country at that time. In short, Toledo District was certainly not a vacuum and, indeed, was pivotal to influences that were completely beyond the control of the people in the district and of the government of the country.

But let us return to the internal Belize scenario, where many times there was little awareness of important factors taking place outside of the country but with serious repercussions on our decision making. Senior public officers in Belize City (before Belmopan became the capital city) saw the Toledo District as an enigma and with a tinge of racism. It was not participating in export agriculture and inadequately producing for the local market. It had the largest supply of crown land with substantial acreage surrounding Maya communities in reservations. But the main inhabitants were the Maya who defiantly persisted in their backward ways of slash-and-burn and nomadic living.

The peoples of the South saw the authorities as being indifferent and downright negligent towards their welfare. Indeed, they saw themselves as being boxed in and having to negotiate with the outsiders for their own individual benefit. On the one hand, there were the Belize ministers of government, public officers, NGO's, missionaries, and adventurers from abroad. On the other hand, there are the Guatemalans who surround them from the west and south. While they have relatives across the border and could more easily access medical and other much needed services there than in their own country, they are aware of the covetousness of the Guatemala government toward their land. Facing all of these obstacles from both within and without the country, the peoples of the South have formed close bonds among themselves that span more easily across ethnic lines than in other parts of the country. In other words, there has been developing a culture in the South that has many overlaps among the people but simultaneously sees itself different from that of other Belizeans, notably those from Belize City. Other Belizeans are unaware of this and they do not bother to understand it.

The development projects, which I have described, came into this abiding context of underlying tension between the non-Southerners and Southerners. We can now proceed to identify some main assumptions that were hatched from an ignorance of the peoples of the South and an intolerance toward their culture. So untenable were these assumptions that projects

founded on them could not succeed. As in the previous descriptions of the Projects, I am indebted to Charles Wright's manuscript for this part of the discussion.

Assumption No. 1 The Monolithic Maya

We have already seen that the Projects had an almost single handed bias toward the Maya overlooking the other peoples who inhabit the South. They include the Creole, East Indian, Mestizo, Garifuna, and newly arriving ladinos from Guatemala and Honduras. But the Maya themselves are not one monolithic group. There are the Mopan Maya and Kekchi. Even if one should regard them as one large group given the cultural overlaps between them, there are at least five subdivisions based on the ecological zones that they inhabit.

One group consists of people who are most remote away from Punta Gorda and live in villages with non-reserve lands. Another live mainly in the heavily populated upland reservation villages, who have been most targeted by the Projects. A third group have descended toward the coastal plain along the Southern Highway. They have adapted a mixed economy consisting of wage labour, cash cropping, subsistence milpa. A fourth group have settled northward. As the people in this group migrate further along the highway into the Stann Creek and Cayo Districts, some have become citrus farmers and have formed a distinct group. A fifth group have settled in Punta Gorda and adjoining communities. They are least reliant on agriculture and have increasingly become an urban proletariat.

Conditions producing such fluidity have intensified within the past two decades and no doubt have resulted from growing inadequacy in agriculture and the land tenure system. The subdivisions show the necessity to look seriously at plurality among the Maya in planning projects as well as among other groups.

Assumption No. 2 The Maya want private land ownership within set boundaries.

Probably the experiment with private farm plots, as we saw earlier in the Crique Sarco and Otoxha areas, best shows the fallibility of this assumption. The subdivision contradicts the underlining Maya value of the indivisibility of land. Land is a gift from the gods to man to use and not to alienate for himself. The indivisibility of land resonates in other aspects of the socio-economy, including the allocation of group labour to work the land and access to non-agricultural products. In short, the cutting up of land generates a domino effect including the inevitably unequal subdivisions endangering the food supply of some more than others. Those Maya who have opted for private land ownership have had to pay the additional cultural costs forthcoming. In doing so one breaks the norm of egalitarianism, a cultural principle that dominates land tenure and ultimately community solidarity.

Assumption No. 3 Without legal title there is no improvement on land.

This assumption underlay most Projects, especially the TSFDP. The fact is that in some villages, the reservation system does not negate the possibility of access to land for the duration of one's lifetime and to pass to one's inheritors. Instead of making this a universal assumption thereby canceling away the cultural value of the reservation system altogether, one should pinpoint where it does not apply and how to work with it otherwise.

Assumption No. 4 The Maya have tendency to intrude into the Forest Reserve to make milpa

Charles Wright emphatically denies that this took place during his forty years of living among them. He adds that the Maya knew that the ground water was negligible in the forest reserve making them unattractive for cultivation. On the other hand, the various ways of co-existence with the reserves is an extension of the Maya tradition of relying on the rainforest. This in turn is the basis of community forestry, a practice among them that goes back for millennia but yet to be validated by public policy as strategy for development.

Assumption No. 5 Erosion produces less soil fertility and soil fertility results from increasing milpa use.

This double-barreled assumption refers to the linkage between soil fertility and human use. It was especially critical as a cornerstone in several Projects including TRDP and NARMAP. The fact is that a direct correlation could not be made exclusively without bringing to bear other factors, such as natural causes like rainstorms and the underlying geological structures that could change even within small distances. In short, the tendency to place blame on the Maya for declining fertility overshadowed other unexplored possibilities.

These assumptions all point to a determination that Maya culture was at fault for their perceived backwardness. The fact that their technology has acquired the level of sophistication gleaned from over four thousand years of co-existence with the rainforest was lost among the drafters of the Projects.

CHAPTER 3

THE INTERVIEWS

If the former study was on the perceived wisdom of foreign public officers implemented by foreign technical experts, the second was on the perspective of individuals born and raised in the Toledo District. I interviewed a total of nine persons together with an additional three in a focus group session. I did the interviews in six communities during the month of January, 1999. Three interviews and the focus group took place in Punta Gorda. The others were in one Garifuna village Barranco, one East Indian village Mafredi, two Kekchi villages – Conejo and Silver Creek – and the Mopan village of San Antonio. Most of the interviewees were older men and women over forty-five years old. The interviews provide snapshots of differences within the Toledo District population according to gender, ethnicity, age, geographical location, and type of community.

An overview of the topics discussed is as follows. In Punta Gorda the focus group was among a group of four young men of Creole, Mestizo, and Garifuna ethnicity who were planning what business ventures to undertake to capture opportunities unfolding from the completion of the highway resurfacing. Also in Punta Gorda the community leader was spearheading the subdivision of land in a private estate that Garifuna ancestors had left in trust for their descendants in that community. Villagers in Conejo, Silver Creek, and San Antonio spoke of the impact of the highway on the welfare of themselves and their families. A woman community leader in Barranco spoke of the possible impact on community led tourism, an economic activity that could help the survival of that village. Finally, the elder man in Mafredi gave an historical summary of events in the district, especially among the East Indians. It would not be understatement to say that all saw the highway as a major force for economic transformation.

In describing the patterns forthcoming from the discussions I start with opinions about ESTAP and the highway. All informants knew about ESTAP. Some had participated in workshops that ESTAP sponsored. Others were trying to fill out project proposals for an ESTAP small grants programme, a task that they found difficult not having had experience with proposal writing. Their reaction toward ESTAP was mixed. Some felt that it would not result in anything for their welfare, as the previous projects that they had seen around them. They could not visualize what regional planning was and how they could fit into such an effort. At heart here was the impossibility that development could start with what the community wants as against the normal pattern of what the government ministers want to impose.

On the other hand, there were bulging expectations about how the highway resurfacing would impact on their daily life. While some saw it as bringing foreigners and development into their community, many others saw it facilitating travel from one part of the region to another. The Conejo man saw his fellow villagers living in Punta Gorda being able to return more frequently to the village. Alternatively the villagers could more easily bring their produce to the town market or their sick to the town hospital.

The Dean of the University College of Belize Toledo campus saw an opportunity for him to review his teaching programme as he envisaged more students being able to attend classes.

Similarly, the group of young men in Punta Gorda, who had been engaging in evening classes, saw themselves now being able to plan seriously about business opportunities that capitalize on the strategic location of that town *viz a viz* Guatemala and the rest of Belize.

Another deep concern among all interviewers was that supply of land for house lots and farm plots would decrease as land hungry foreigners would come to grab whatever is available. It was in anticipation of this rush that some women in Punta Gorda were holding community meetings toward subdividing the St. Vincent Block that their ancestors had bought and held in trust for them. In Box 1 there is an elaboration on the St. Vincent Block subdivision as an example of community response to land ownership distinct from that found among the Maya.

There was another common reaction to the place of education in the onslaught of modernization. Among all ethnic groups there was a strong bias toward primary and secondary education. They encouraged their children to do well and complained on the limited opportunities available especially at the secondary school level.

As the verbal expression of individuals the interviews revealed nuggets within the cognitive and affective fields of socio-psychology. One area highlighted was the abiding concern for tradition in a reflective sense. Two persons told me that they were working on material that they would like to put into a book. In both cases the topic was on cultural tradition – ethnomedicine for one and the for the other the early history of his people within Southern Belize.

The two men from Silver Creek and San Antonio spent some time explaining the double bind in which they found themselves trying to preserve their culture as they and their families modernized. There is an elaboration in Box 2.

In the Garifuna village the interest in cultural tradition came in two ways. One was to teach the children the language, foods, music, and dance so that the culture could continue. The other was to refine these techniques so they could also be major elements in the community tourism that the villagers would like to launch. It was an interesting case of combining two sets of motivation on cultural preservation around the same activity.

These are only some examples of people's enthusiasm and commitment not only to the joys of cultural expression but also to reflecting what more they could do about it. They underlie the truism that it is only in the southern part of the country that one can be traditional, be proud of it, and still try to modernize.

I would like to revisit the theme of cross-culturalism which came up briefly in the first part of the consultancy report and will be forthcoming in some detail in the third part. Informants mentioned quite candidly their own cross-ethnic ties or those of others that they know. It was not only between the Kekchi and Mopan but also between the Kekchi and Garifuna. The case in Box 3 gives more information. It shows two traits that characterize Southern Belize giving it its unique cultural profile. There is respect for the cultural boundaries that the ethnic groups maintain but there is also remarkable ease by which individuals can cross these boundaries.

BOX 1

The St. Vincent Block – case of Garifuna Cultural Value on Land

The current efforts by some persons in Punta Gorda to subdivide the St.Vincent Block among residents of the town has an historic thread that runs from the first time that these 900 odd acres were acquired during the first half of the nineteenth century. It was during that time that Jose Maria Nunez collected moneys from his fellow Garifuna brothers and sisters to purchase the block so it could remain as common lands for Garifuna people in perpetuity. Jose Maria and his compatriots – as second and third generation descendants of the first Garifuna arrivals from St. Vincent – had no doubt learned from constant repetition the grave misfortune of the Garifuna on being dispossessed of their lands in St. Vincent and the subsequent misery of exile away from their fatherland to Central America. It was, therefore, a natural response, almost reflex action on their part to purchase their own land in their newly acquired second home in what is now called Belize. It was a way to avoid a repetition of the indignity of St. Vincent.

In 1924 Jose Maria Nunez died intestate. But the property was handed over to two Garifuna leaders, Michael Blesseth Daniels and Ambrosio Avilez to hold in trust on behalf of all current and future Garifuna residents of Punta Gorda. In the meantime the property itself has undergone changes. Parts have been excised from it. There have been difficulties to pay the taxes accrued. Besides, the Garifuna themselves have become less and less agricultural. The important factor still remaining, however, is that there is a strong public consciousness among the Punta Gorda Garifuna that their ancestors had the foresight to leave some land in trust for them.

The current efforts to subdivide are no doubt an effort by some persons to jump start the possibility of imposed acquisition and subdivision by the government as the town extends further westward.

The final lesson forthcoming from the St. Vincent Block experience is to compare its trajectory with that of the Maya value on land tenure. For both peoples there is a common belief on the need for their communities to have access to land for agriculture. The difference is that the Garifuna ancestors more than one hundred and fifty years ago bought land to remain in trust for their descendants. On the other hand, the Maya still maintain the dual principles of indivisibility and inalienability of land.

Box 2

Dealing with the Double Bind of Tradition and Modernity

Almost all of my informants believed that the resurfacing of the Southern Highway will unleash a never before seen wave of modernization on the peoples of the South. The older men and women are deeply concerned that the balance between the two worlds – the traditional and modern – that they have been able to maintain will not be possible for their children and grandchildren. It worries them. I provide some examples.

Francisco is a 60 year old Mopan who has deepened his commitment to his culture over the years. He trained himself to be a herbalist. He has received much encouragement from his ties with the Toledo Maya Cultural Council. Through his exchange visits with indigenous peoples in several countries he has learned much about traditional methods of curing. But he has been having difficulty to pass it on to his sons.

By dint of hard work all his children have finished both primary and secondary school. Some have migrated from the village in search of jobs. One son on whom he had high hopes to train to continue his practice has become member of a religious group that disapproves of all things Maya. The young man has now turned his back on the thousands of years of cultural tradition that up to his father's generation received veneration. To make matters worse another son has also become attracted to another religious group, which is also intolerant of Maya beliefs. Francisco is increasingly seeing himself as a lonely voice with few supporters even from within his own family.

The second case is that of Virgilio who now lives by choice in the outskirts of his village. He took this move some years ago because he wanted to lease some land to be able to work as he sees fit and to leave to his children. Taking this bold step made him unpopular with close relatives and friends. Even his wife was reluctant to join him.

Under normal circumstances the village community would have ostracized him from ever returning. This would have been too painful for him and he took immediate steps to avoid such a radical break. He willingly returned to partake in all community activities set aside for the men. After some years he was even elected to lower offices in the village local government hierarchy and gradually was elected to become the alcalde. It was then he was fully convinced the he had won the battle. He was an outsider but also an insider on his own terms.

Box 3

Extensive Cross-Culturalism: the Garifuna and Kekchi

The villages of Conejo and Barranco for several years have been twin communities within the extreme southern cluster of villages in the Toledo District.

I had always been aware of the regular visits of men and women from Conejo to Barranco as a child growing up in the village. They came and spent days on end at my uncle's household. They brought food items to sell and would celebrate drinking with the village men for a few days. Afterwards, if there were any paid work available, they would work and buy goods to return home.

The frequent visits led to forming close bonds of friendship between the two villages. These in turn led to ties of compadrazco. Gradually men from Conejo had children by Garifuna women from Barranco. In at least one case one woman went to live with her partner in Conejo.

My memory of these exchanges was jogged when I visited Conejo to do interviews for this exercise. The young alcalde welcomed me and asked with which family I was related in Barranco. He recounted having heard of my uncle living some years in Conejo and that Barranco people had regularly come to visit with friends in Conejo.

In discussing intervillage ties he complained that there were constant difficulties with neigbouring villages intruding into his village lands. He added that the only village with which there was no dispute was Barranco. On the other hand, it was the village where his people went to shop and sell produce.

The lesson here is that intervillage ties can lead to close and intimate bonds that cross ethnic lines. There are several examples of this within clusters of communities throughout the South.

CHAPTER 4

Report On The Workshop

Cultural Sensitization and Change Management

1. Introduction

This report describes the (ESTAP) Workshop held in Punta Gorda January 25 to 27, 1999 entitled "Cultural Sensitization and Change Management". It covers the following subheadings – the preparation, process during the two and a half-day duration, the achievement, and some recommendations.

2. Preparation

In this section I spotlight the planning that went into the Workshop as a case study of (a) reacting to a perceived problem by the ESTAP staff; (b) attempting to arrive a feasible solution in discussions with myself as the consultant; (c) agreeing on a compromise solution; (d) further fine tuning the workshop objectives; and (e) finally implementing the Workshop which assumed its own dynamic unlike what had been planned. Because the Workshop is most significant among the three components of the consultancy in terms of direct interface with community leaders, I will refer in the following discussion to negotiations I had with ESTAP on the overall consultancy.

In April 1998 Mr. Fred Hunter Jr. (his office title) of ESTAP and Ms. Lucia Ellis (her office title) held discussions with me to help identify what cultural factors to include that would enhance the collaboration of communities within ESTAP fieldwork.

Further discussion among us led to suggested terms of reference forthcoming from Ms. Ellis to me May 5, 1998. They are as follows:

- Utilize a team approach (rapid rural appraisal methodology) in liaison with the ESTAP Community Participation Unit, for the implementation of this consultancy
- Develop criteria for the selection of communities in which the study will be conducted
- Make recommendations for the team composition
- Conduct literature review of societal studies done in the region

In my letter of June 27, 1998 to Ms. Ellis I offered an alternative recommendation based on my detail review of ESTAP project documents. As preface to the alternative suggestions I quote from my letter.

"Having perused all the documents, I am certain that the following is what is meant by community involvement under the Project:

a) To network among the communities as a way of learning how best to get them involved in the Project.
b) To gather information from them at various levels of groupings.
c) To provide information and elicit feedback in the planning process.

It would seem that in terms of its target communities ESTAP sees them as providing information and responding to questions on what should go into the plan. This is primarily a **prescriptive** approach where the intervenor (ESTAP) stipulates what it needs from the client (target communities). This is to be done during several question and answer sessions with aggregates of individuals, which ESTAP refers to as "consultations"....

"This form of community involvement has been used extensively in planning exercises all over the world. There has also been a deliberate progression to another level of participation where communities themselves are given a free rein to be proactive. They initiate their own question and answer data gathering under the minimal supervision of a team from the intervenor agency. Besides, they gradually elaborate on their needs, how they can solve them, the appropriate kind of assistance they will need, and ultimately define the scope of their own contribution to the planning process. This is called the **participatory** approach. It would seem to me that such a framework was not envisaged in the conceptualization of ESTAP.

"There are volumes published on the merits and demerits of the prescriptive vs. the participatory approach to community involvement in rural development. Suffice it to say that they are philosophically and methodologically divergent. They also demand completely different orientations in fieldwork, data gathering, analysis, and monitoring, We can assume that the drafters of the ESTAP project knew why they selected one approach over another. We would add, however, that it is the participatory approach which most easily responds to the question of cultural intangibles, the issue that had been initially identified as the topic of this consultancy."

When the final draft of the consultancy contract came in November, 1998 it described the one-week training session to be "on sensitivity to cultural aspects of development in the Southern Region so as to improve their (ESTAP staff and community leaders) capacity for data collection, analysis, and planning."

In January, 1999 IDB Consultant Mr. Ricardo Moreno introduced some changes to the objectives of the Workshop from a focus on cultural sensitivity to one decidedly more dynamic and operational. The conclusion was that we should spotlight cultural institutions as precursors of change and the role of ESTAP staff and community leaders as managers of such change. Consequently there were to be two main components in the content of the Workshop – attributes of change and methods of handling them.

While accepting this latest fine-tuning from Mr. Moreno, I still felt that there was a logical flaw for there was a need to emphasize what culture is and what are its various

TABLE 3

FIRST DRAFT AND AMENDED AGENDA

DAY/ SESSION	FIRST DRAFT	DAY/ SESSION	AMENDED AGENDA
1/1.1	Introduction	1/1.1	Introducing six cultural institutions
1/1.2	Grounding – the sociocultural context	1/1.2	Grounding – the sociocultural context
1/1.3	Grounding – development, change, agent of change		
1/1.4	Grounding – the six cultural institutions		
½.1	Institutions as primary filters of change	½.1	Understanding the matrix: "Attributes of Change"
2/3.1	Institutions as primary filters of handling change	2/3.1	Review of the discussion on the Matrix
2/4.1	Fine-tune the Matrices "Attributes of Change" and "Methods of Handling Change"	2/3.2	Appreciating lived experience – Micaela Wewe, Juanita Chun, and Brigida Bol on Maya women
3/5.1	Final plenary	2/3.3	Appreciating the lived experience – Lila Vernon and Dennis Usher on the National Kriol Council
3/5.2	Recommendations	2/3.4	Appreciating the lived experience – Olivia Santino and Jane Avila on the National Garifuna Council
3/5.3	Evaluation and closure	2/4.1	Appreciating the lived experience – Domingo Choco on the TMCC mapping project
		2/4.2	Lucia and Eva – Case Studies
		3/5.1	Review of former day's sessions
		3/5.2	Evaluation
		3/5.3	Recommendations
		3/5.4	Expose

manifestations and structures before proceeding to the next phase of change and methods of handling it.

Following the Moreno recommendation the objectives as stated during the first session of the first day of the Workshop are as follows:

- To understand six main cultural institutions that provide a framework for change in the Southern Region: land, kinship, spirituality, economic systems, political systems, and community history/identity.
- To identify some attributes of change: the source of imposition, the intensity, and the disposition of the recipient community.
- To analyse some methods of handling change in terms of the respective activity, the context within which it falls, and its contribution to development.

The following discussion on the Workshop process will show how, notwithstanding the preparations we made, the Workshop took its own dynamic on the first day necessitating some flexibility in handling the additional day and a half.

3. The Process

3.1 Functions

The type of workshop that we planned had three basic functions – to be a mechanism for teaching/learning; to generate analytical skills leading to a heightened familiarity with the subject matter of culture change; and to accomplish prescribed tasks which would remain with ESTAP for future reference. Within the actual setting all three functions took place simultaneously and not necessarily in sequential order. In the following discussion we elaborate on these functions as being basic to the didactic nature of the workshop. We describe other outcomes from the Workshop. Finally there is a word about participants.

3.2 The Agenda

No matter how comprehensively he plans, the workshop facilitator has to have as a cardinal characteristic an interminable supply of flexibility to ensure that participants acquire the maximum opportunity to learn from the experience. This came to us quite forcibly by the end of the first day, necessitating a change in the agenda for the following day and a half. Briefly, we were able to sense that what the participants wanted was not further detail on how to manage change. Indeed, what they wanted were **(a) what are the cultural similarities and differences among them; (b) how the ethnic groups now appear to be in opposition one with the other; and (c) what could be done to bridge the gap and facilitate working together.** Table 3 has a breakdown of the changes in the agenda. Observations from participants' statements in the evaluation confirmed that this was a prudent move.

TABLE 4

Report On
Attributes of Change

CULTURAL INSTITUTION	IMPOSITION	INTENSITY	COMMUNITY DISPOSITION	RECOMMENDATION
LAND				
Small Groups	Foreign Investors	High	Want to maintain land	Land Reform Policy
	Foreigners want land	High	Poverty etc. make people want to sell land	ditto
	Rampant destruction of the physical environ't	High	Lack of education	Avoid political manipulation in applying for land
KINSHIP				
Small Groups	Destruction of fam. ties	High	Unacceptable	Educate natives how to relate to foreigners
Individuals	Interracial unions	High	Mixed	Strengthen kin groups
SPIRITUALITY				
Small Groups	Several Churches compete	High	Confused and loses meaning of spirituality	Separate culture from religion
Individuals	Division	High	Mixed	Teach ecumenicism
	New Churches	High		Cultural education
	Outside influence	High	Vulnerable	
	Foreign invasion	High		Individual's respons.
ECONOMIC SYSTEM				
Small Groups	Change from	High	Well disposed	Env'tal

	milpa		to change	Consciousness
	Expansion of markets	High	Ditto	Business training
	Avoid trad. Foods	High	Ditto	Stress Nutr'l value
Individuals	Mechanized farming	High	Change in employment	
	Industry	High	Jobs	
POLITICAL SYSTEM				
Small Groups	Village Council Act	High	Resistance	Villagers need consultation
	Political Reform	High	Lack of awareness	More information
	Weak information	High	Need information	Better communication
Individuals	Weak information	High	Need information	Ditto
	Need for great change	Low	Don't know to change	
	Conflicts	High	Not ready	Laws to apply to all
	Village Council Act	High	Probable dissolution of alcalde system	Stop the Act
COMM. HIST/IDENTITY				
Small Groups	More influx of others	High	Adapt bad habits	Need laws against behaviour
	Traffic hazards	High	Deaths, accidents	Educate children and drives
	Land dispute	High	Fighting	Land authorities to enforce laws
	Resistance to trad. Law	High	Change among youth	Improve trad. Law by making heavier fines
Individuals	Attacks on trad	High	Change in	Ditto

	law		youth	
	Risk of loss of culture	High	Not ready	Ensure that they are recorded
MULTICULTURALISM				
Small Groups	New ethnics	High	Ready mentally	Land security
	New tourist cultures	High	Not now ready	Learn to provide service
	Crime	High	Not ready/naive	Improve security
	Local industry	Slow and growing	Needed	Training
	Kinship	Strengthen or weaken	Mixed	Respect individual's wish
Individuals	Mixing of groups	High	Want to uphold trad	Strengthen cult councils
	Many intrusions	High	Have always been integrated	
	New peoples		Comm. Not ready	Ditto
	New cultures	High		Need education

3.3 The didactic process

The didactic process took place in several ways. Firstly, there were three levels of discussion **– primary, group, and plenary**. At the primary level we used the Socratic method to generate learning through questions and answers. Interestingly the level of response was high and enthusiastic.

In the group discussions, persons who did not participate in the primary sessions had an opportunity to voice their opinion. The plenaries were free-for-all where all persons were allowed to share. Although the flow was not always consistent with the topic, we felt that it was necessary for individuals to say what they wanted within acceptable bounds. It became evident to us that there was among the participants a great deal of latent misunderstanding and even antipathy with the ESTAP process that needed to be aired publicly. Later the evaluation comments revealed that allowing persons the freedom of self-expression functioned both ways – to widen the breadth of exchange (which was laudable) and to enable some persons to hurl personal insults (which was distasteful to some participants).

The **case study** method of sharing forthcoming from Ms. Eva Middleton and Ms. Lucia Ellis was a handy way to encourage analytical thinking in problem solving within the framework of cultural institutions.

As facilitator I extended my interaction into **post-workshop** hours in the evening with participants. It enabled the teaching/learning exercise to take place within more relaxed setting. It was also at such times that I shared with Lucia, Dr. Ludwig Palacio, and others how to better enhance the Workshop.

The **systematic recording** of notes by participants is a critical component of the reflection that accompanies learning. To this end we circulated workbooks among the participants to fill in. I observed that almost all did so methodologically.

The spirit of a workshop is that of **collaborative work** on specific tasks which could stand on its own long after the exercise itself had taken place. Participants worked in groups on a matrix of attributes of change. These were written on shopping paper and transcribed in this report (see Table 4). They remain permanent records that could be helpful to ESTAP for future reference. Individually participants filled in their own copies of the matrix, which were found in the workbooks. A copy of what they did remained with them for their own records and a copy was handed to us. To a large extent the latter are comparable to an opinion poll by a few persons on attributes of change.

The **cultural expose** which ended the Workshop gave added opportunity to participate within the context of artistic culture. It was also unusually educational in the use of various kinds of media of communication.

3.4 Participants

Out of 101 invitees 48 persons came to the Workshop subgrouped almost equally into GOB and ESTAP staff persons (21) and leaders forn communities (27). The ESTAP staff subgrouped the participants into six categories as follows – 11 ESTAP, 11 GOB staff, 11 Community Base Organizations (CBO), 11 NGO's, 2 Community Leaders, and 4 Other. Most stayed for the two-and-a half day duration generally showed some enthusiasm. The level of contribution, however, was uneven with technical staff persons dominating discussion at the expense of the others. I discovered in discussions with participants that, as expected, the leaders of communities were hesitant to speak in the presence of the others. A few of them also admitted not having much experience in workshops.

4. Achievement

In this section we focus on the achievements of the Workshop by reviewing our own perspective and those of the participants forthcoming from the filled in evaluation form and the recommendation for follow up action.

4.1 Facilitator's Perspective

Generally there were two main achievements during the first day – generating an awareness of cultural institutions to such an extent that the participants were able to select one each and explain why; and generating a similar level of awareness on the attributes of change. In the second day the participants learned from themselves some cultural similarities and differences and had an opportunity to discuss some topical social and cultural dilemmas currently taking place in the Southern Region. During the last morning the main achievement was rounding off the discussion on multiculturalism and sharing in artistic performance.

We detail session by session the achievements.

Session 1.1 Day 1 AM

Objective: introducing the six cultural institutions

Tasks accomplished:

1. Brief description of each institution firstly as an attribute of culture and secondly as having its own meaning.
2. Introducing three main dimensions of each institution: domain, context, and values.
3. Suggesting the need to question whether to add or delete institutions. Later there was consensus to add multiculturalism as being especially appropriate to the Southern region.

Session 1.2 Day 1 AM

Objective: Grounding: the sociocultural context

Tasks accomplished:

1. Discussing within Belize and the Southern region 'being developed' and 'underdeveloped' – their relativity and reflecting biases.
2. The inevitability of change

3. The two parameters of change: imposition/adaptation/assimilation vs. dictating/negotiating/assimilation.
4. The participants' role as change agents within the two parameters.

Session 2 Day 1 PM

Objective: Understanding the matrix "Attributes of Change"

Tasks accomplished:

1. Individuals took the opportunity to speak, including those who had been quiet in the previous discussions.
2. Participants demonstrated a good working knowledge of the seven cultural institutions.
3. For each they presented recommendations for follow up in terms of handling change.
4. Participants demonstrated knowledge of cause-effect relations when focusing on the following attributes: type of imposition, intensity, and community disposition.

Session 3.1 Day 2 AM

Objective: Review of the discussion on the matrix

Tasks accomplished:

1. Reinforce the intrinsically local (and informal) character of cultural institutions and not to confuse it with those imposed from outside. This is especially the case in spirituality, which is not religion and political system, which is not necessarily national party politics.

Session 3.2 Day 2 AM

Objective: Appreciating lived experience – Micaela Wewe, Juanita surname, and Brigida surname on the experience of Mopan Maya women.

Points covered with Micaela as main speaker:

1. The very informative presentation included the following
2. Giving credits to persons and organization (most non-Maya) who had helped her break through from the narrow social (as a woman) and cultural (as Mopan) constraints that held her back in poverty, ignorance, and cowardice.
3. Mentioned the land issue – traditionally women on their own do not own land.
4. Toledo Maya Women Council – there are 36 groups which are involved in income generation, mostly handicrafts.
5. Making a request for ideas on improving the community; market for craft works; Human Development Office to assist with backyard gardens.

Session 3.3 Day 2 AM

Objective: Appreciating lived experience – Lila Vernon and Dennis Usher on the National Kriol Council

Points covered mainly by Lila:

1. Recounting her own leadership initiatives in starting the National Kriol Council first in PG and from there to the rest of the country.
2. Shared brief history of Creole communities in Toledo having started as set of labourers on plantations.

3. Shared that historically the value of Creole culture is its primacy in the formation of colonial society as reflected in the national anthem.
4. Shared that she is self-taught musician, dramatist, drummer, composer, and choreographer.

Session 3.3 Day 2 AM

Objective: Appreciating lived experience – Olivia Santino and Jane Avila on the National Garifuna Council

Points covered mainly by Olivia:

1. Shared information about the beginning of the NGC from small Garifuna Settlement Day committees.
2. The need to be proud of one's culture.
3. The difficulty of doing mobilization among the Garifuna.

Session 4.1 Day 2 PM

Objective: Appreciating lived experience – Domingo Choco on the TMCC mapping project

Points covered:

1. Shared the process in the mapping, where people's indigenous knowledge of the rainforest was identified and used to locate features for mapping.
2. Some results of the mapping include: the world focusing its attention on the Toledo Maya, generating the need for the Maya to lobby, the deleterious effect of Malaysian logging was highlighted, and the momentum to argue for ESTAP by TMCC picked up.

Session 4.2 Day 2 PM

Objective: To share concerns of actual social and cultural problems arising from their field observations – Lucia Ellis and Eva Middleton

Points covered:

1. Prostitution of Maya women by club owners
2. Possibility of a casino starting in the Punta Icacos and Punta Negra area.
3. Labour migration having impact on the internal composition of households and the neglect of traditional tasks.
4. The underutilization of tourist guest houses for lack of tourists.
5. Foreigners setting up a Maya village in the Poppyshow area.
6. Problems arising from the need to commute to town by high school students – improper food intake and learning 'bad habits' in town.
7. Land ownership problems between immigrants and long term residents; foreigners duping locals of their land.

Session 5.1 Day 3 AM
Objective: Review of the former day's sessions
Points covered:

1. The use of cultural institutions as a way of analysing problems of imposition using specific examples from the Ellis/Middleton cases – the analogy of peeling oranges.
2. The importance of multiculturalism in the lived experience of people in Toledo – the analysis of the citrus family with several subspecies. The possibility of focusing on interculturalism to depict the actual intermixture of people currently taking place extensively in the district.

Session 5.2 Day 3 AM
Objective: Evaluation (see Section 5.2 further below)

Session 5.3 Day 3 AM
Objective: Recommendations (see Section 5.2 further below)

Session 5.4 Day 3 AM
The Cultural Expose
Featured presentations with the following: poetry, herbal medicine, drama, songs, jokes, dance, Maya ritual and group prayer, Garifuna food preparation display.

5.2 Participants Perspective on Achievement

The participants' achievement came as statements in the evaluation forms, filling the matrix as groups and as individuals, and making recommendations.

Evaluation

As many as 19 filled in the evaluation forms. There was a high rate of concurrence on what was written in answer to the five questions. There was unanimous credit on the method of facilitation, especially allowing and encouraging participants to share their views; on the tardiness of the Workshop in the ESTAP's timeframe; and on learning about multiculturalism. With respect to the new concepts that ESTAP should implement the participants identified multiculturalism; the need for more workshops of this type and on topics of pivotal importance, such as land and spirituality.

Matrix

The following is a distillation of what the small groups did in the afternoon of the first day and what some participants filled in on their blank copies in the workbooks. In the latter case there was a wide range of misunderstanding the task, resulting in our having to discard about half of those handed. Generally the two sets complemented each other in reflecting some common perspectives.

Land

The participants identified the main form of imposition on land to be the covetousness of foreigners for lands in the district. As said in group discussion, " Prime land won't be available because foreign investors are in a better position to barter and speculate." They described the intensity of the imposition as being high partly due to the poor disposition of the communities in

not having enough cash to meet their daily needs, a low level of education, and low awareness of the proper use of land. Under recommendations the group asserted the right of all Belizeans to own land and not to be politically manipulated when attempting to exercise this right. There were several cries for a comprehensive land reform policy. One recommendation called for the wholesomeness in the use of land. It said, "(There is a need) to educate Belizeans to acquire land; and to use it environmentally safe; and to allow diverse groups to carry out traditional lifestyles in spirituality, etc..

Spirituality

Christian religion dominated the thinking on spirituality. The main form of imposition came from the several religious groups making inroads into the region. There was a high intensity coming from their proselytizing activities. From the small group report the disposition of the community was described as being confused resulting in a loss of the meaning of spirituality. The small group recommended a definition of what is spirituality as being distinct from religion.

Economic System

In both the small group and individual responses the perspectives on economic system were well informed. There were several kinds of imposition identified – change from milpa to large scale mechanized farming, the expansion of markets for women's traditional production, a break from traditional foods, changes in the types of building materials from traditional to imported, and increased logging. In most cases the intensity of the imposition was high. They agreed that the communities by and large were well disposed to the new changes. The recommendation called for proper laws and education to help the people deal with the changes. Furthermore, people need to change their own behaviour and expectations in the onset of these changes.

Political System

There were three types of imposition the small group identified – the village council bill, political reform, and weak information systems. The intensity of imposition in all cases was high, while the disposition of the communities ranged from being uninformed about these changes to being confused by them. The recommendations called for greater involvement of the communities in bringing about these changes.

Community History/Identity

The current large scale inflow of outsiders into the district was again seen as a primary form of imposition *viz a viz* community history and identity. Furthermore, communities were torn by these intrusions. In some cases the youth especially developed bad habits like drinking, drugs, and infidelity. Recommendations called for authorities to enact laws to create a buffer between the outside influences and the welfare of the community.

Multiculturalism

There was similarity in the focus on multiculturalism as on community history/identity. The imposition was forthcoming from outsiders at high intensity to the community, whose disposition ranged from being "ready mentally" to being "not ready and naïve". The recommendations were several. They include land security, improved security (from Guatemala), strengthening the cultural councils and starting a multicultural council.

Recommendations

The global recommendations that the participants collectively gave closer to the end of the Workshop reflected those already forthcoming from the small group discussions.

The global recommendations are the following:

6. To form a multicultural council whose function would be to –

- Resolve issues with potential for conflict
- Enhance solidarity on topics of vital importance, such as the land issue
- Establish commonalities
- Be a forum for project planning, project proposals, etc.

7. Individual councils should become more strong in their own self-appreciation
8. There should be support for the councils
9. There is a need to redefine the term "indigenous" to be more in keeping with the realities of the people in the district.
10. Communities should evaluate agencies that want to work with them
11. The contract of ESTAP field staff should be extended to complete the process of continuity
12. There should be a change in venue for such workshops to other parts of the district.

6. Facilitator's Recommendations and Conclusion

The Workshop Topic

The previous discussion on the Workshop preparation highlights the stages of planning the Workshop. The unequivocal voice of the participants is to continue the dialogue on cultural differences and similarities among them and how they can together address the fundamental intrusions within the region.

Workshop Participants

As to be expected there was wide variation in the level of participation of the participants. It was obvious, however, that there were marked differences in the kind of participation of GOB staff *vs.* the community leaders, of the Creole *vs.* the Maya, of the younger (workshop inexperienced) members *vs.* the older and more experienced. There are pros and cons in having such a wide mixture of persons in a workshop. It would seem that for future workshops ESTAP needs to be more conscious of mixing so many categories at any one event.

Workshop Process

One of the most glaring weaknesses in this Workshop was the lack of ownership by participants in the process. Even when I tried on the first day to invoke a small group who would be my primary reference group for co-management, it did not work. Because of this there was

quite some strain on me as facilitator to "second guess" the pulse of the participants and implement what I thought were appropriate decisions to enhance the outcome. In this case my knowledge of the area was certainly an advantage. ESTAP needs to implement a workshop mobilization task force that would bring about people's involvement before, during, and after each workshop. At the very least it is one way of bringing about the continuity in community participation so essential for the Project.

Follow up Action

The Stann Creek District was minimally represented in this Workshop. I think that a similar Workshop should be held in that district. Its planning should learn from the mistakes of this one. It would be advisable that one or more persons who were outstanding in the Punta Gorda Workshop be included as co-facilitators.

Final Remarks

The Workshop enabled me quite forcefully to see the Toledo District as:

- A frontier region undergoing several onslaughts from the outside on its bountiful cultural and natural resources.
- An underdeveloped region – dependent on the extraction of primary natural resources, hence the almost single-minded focus on land in the Workshop
- A traditional region – where being traditional in one's culture is still very much accepted.
- A multicultural region – a strong sense of "all a we da one" until the forces of divide and rule had been re-imposed, especially within the past decade.
- A transforming region where there are strong currents taking place and people want to help dictate the direction of change.

ESTAP has the unique opportunity to use all these perspectives as it carries out its mission.

CHAPTER 5

LESSONS LEARNED AND RECOMMENDATIONS

Lessons learned

By summarizing the main findings we arrive at the lessons learned from this study. The study had started with the question what are the cultural underpinnings operating within the Southern Region and what could be done to hasten their integration into the regional planning effort of ESTAP. I subdivide the main findings under the headings of culture, development, and culture and development.

It is necessary to emphasize that a brief study such as this can at best provide some leads that would need further fine-tuning to make them more useful as operational tools. Both culture and development are very dynamic concepts and any efforts to focus on them needs both caution and time.

Culture

The caveat on caution and time is especially appropriate where there are swift currents of change over taking culture, as currently taking place in the South. One's description of a culture today may not be appropriate a few years afterwards as persons immigrate or emigrate fundamentally affecting the character of the community. But we need to be able to provide certain parameters where the student and planner can function within some limits of certainty, while taking full cognizance of what the members of the community are saying.

With this caveat in mind, I would say that this study has alerted us to certain principles of behaviour that apply among some peoples in the South. We have found out that among the Maya the principles of inalienability and indivisibility of land are still fairly strong. Closely following is the principle of egalitarianism. To contravene these principles one runs the risk of failure in one's intervention. Hence, in one of the first projects where the ODA provided surveyed land, inputs, and a comprehensive programme of land management in the Crique Sarco area, the Kekchi did not pursue it for the following reasons. Land is not subject to permanent alienation nor to being cut into private parcels for permanent private possession. Besides, in doing so one introduces inequality, which counters the bond of interpersonal reciprocity that provides the basic character of the Maya community.

Belief in traditional culture is another basic principle of social behaviour. Among the Garifuna it revolved around an estate that the ancestors had prudently left for the perpetual use of their descendants. Among the Maya we saw examples in cherishing herbal medicine and community solidarity at the village level. The twofold pressures to remain traditional and modernize have generated a double bind situation that some persons were able to articulate so well. In short, there is a degree of elasticity wherein one can still be traditional while modernizing. Support to handle this underlying tension can only come through the community and sympathetic intervention from beyond the community.

The fact of cross-culturalism was exposed in many ways – personal genealogy, residence in village clusters, moving from the rural to the urban area, places of work, political relations, and so on. People know the boundaries of the respective cultures and when to cross them or not. The public consciousness of the boundaries – and the terms of being able to cross them – is especially remarkable among all Southerners.

The ease of engaging in the expressive arts of culture is another common trait. It came through clearly at the end of the January workshop. It indicates a strong awareness not only of culture but also how to express it and showcase it within a cross-cultural setting.

Development

Unlike the vibrancy that culture exhibited at the popular level, development in the South has remained confined within projects that have not been responsive to the people. We have highlighted the following – the unavailability of data about them in the country, the rather difficult path for the government and people to assume responsibility for them in the short and long terms, and the outright disregard of socio-culture. If development should be people centred, it has only started being so in the South since the early 1990's.

Culture and Development

In this study the spotlight on culture and development comes in two ways – from hindsight and an appreciation of what is currently taking place on the ground. Hindsight has brought to the forefront the sorry tales of failed projects and, most particularly, assumptions to avoid in the conceptualization of projects. We can categorically say that a failure to abide by the assumptions we earlier highlighted in Chapter 2 led to the failure of several projects in the past and will do so in the future.

The appreciation of current situations came through a review of seven cultural institutions, which the workshop participants were able to identify from their own experiences. The cultural institutions were land, kinship, spirituality, economic systems, political systems, community history/identity, and multiculturalism. Not only were they able to describe these institutions they were also able to describe the level of imposition forthcoming as well as the response of community members. The degree of empiricism expressed in the discussion of these institutions added a heightened sense of day to day reality that the ESTAP staff needs to re-capture and fine-tune as they proceed with the regional plan. Equally significant were the testimonies of workshop participants about their own personal experiences as agents of changes. They spoke about the difficulties of women to assume leadership roles within Maya society; about the problems of implementing a community-mapping programme; about starting a Creole cultural group; and fighting the apathy of the Garifuna against solidarity. Each one of these experiences spoke volumes about what it means to be endogenous change agents within the South. Such experiences need recording to become references for other leaders, including those of the future.

The study has shown quite conclusively that community leaders have more than an adequate grounding of analytical subcomponents of their socio-culture (i.e. the institutions); how

change is affecting them; and finally how they have personally and at great personal sacrifice initiated mobilization for development. In the end they have displayed the degree of flexibility that could be harnessed for community generated regional planning.

Recommendations

1. **Anthropological Expertise**

Presence of persons with social and cultural anthropology expertise would not have been able to salvage the development projects implemented in the Southern Region. But they would have been able to argue that the cultural wisdom of the people targeted be given high priority. Such need is the more pressing with ESTAP, which, more than other projects, is placing a great emphasis on the "cultural integrity" of the people.

The first recommendation is that an anthropologist be recruited to work within the ESTAP project, especially if the next phase of the plan implementation be imminent.

2. Extension into Other parts of the Southern Region

My observation in this consultancy of the limited focus on the non-Maya inhabited areas in the Southern Region may not be appropriate for the overall thrust of the entire ESTAP project. However, the focus that I have placed in this consultancy on the Maya dominated subregion needs to be deliberately extended to capture the rich cultural mosaic in other parts of the Region.

The second recommendation is that ESTAP mount a similar study to capture the socio-culture of other parts of the Region.

3. Unique Culture

The three studies in this consultancy have repeatedly shown that the Southern Region has its own culture distinct from that in other parts of the country. Its three main elements are – respect for the culture of others, forming fairly easily inter-ethnic bonding, and a strong tendency to jealously protect regional resources from exploitation by others.

The third recommendation is that agencies and persons need to be enculturated to Southern values as part of their introduction to the Region.

4. Cultural Integrity

To a large extent the failure of projects in the South came because of the naïve assumption that intervention into cultivation systems would be accepted wholeheartedly. Repeatedly the people have responded that their culture is an integrated system that has served their well being for thousands of years.

The fourth recommendation is that the entirety of the culture needs to be taken into consideration when intervention is being planned. Some areas that we have identified include cultural institutions, technologies used in milpa and other food generating systems, cognitive and affective aspects of the socio-psychology, and social structure and organization.

5. Highway Impact

The high level of anticipation that the residents of the Region have toward the Highway resurfacing is truly outstanding. It is probably the more so after the section closer to Punta Gorda has been finished. The anticipation covers all aspects of life, especially the economic.

There may be the distinct possibility that renewed opportunities may be forthcoming thereby lowering the socio-economic stratification of some more than others may. Or, that the highway could generate more social inequality for the current residents.

The fifth recommendation is to do studies that could generate reasonably adequate indicators of the impact surrounding the already resurfaced portion of the highway. This would be most helpful in carrying through the current planning efforts. It could also be a control factor against the high anticipations that seem to currently prevail among people.

6. Cultural Institutions

The use of institutions in the workshop as a means of analytically subdividing culture to appreciate what people have in common and how they react to change was a preliminary effort that needs fine-tuning.

The sixth recommendation is that there be continued work on the institutions to deepen the fruitful analysis achieved at the workshop.

7. Community Leaders

This study has shown that community leaders as part of their own personal experiences have been active agents of change. These experiences could provide a database of valuable endogenous expertise for regional planning.

The seventh recommendation is that experiences of community leaders should be elicited as examples of endogenous contribution towards regional planning.

8. Sundry Recommendations from the Workshop:

13. To form **a multicultural council** whose function would be to –
    - Resolve issues with potential for conflict
    - Enhance solidarity on topics of vital importance, such as the land issue
    - Establish commonalities
    - Be a forum for project planning, project proposals, etc.
14. Individual councils should become more strong in their own **self-appreciation**
15. There should be **support for the councils**
16. There is a need to **redefine the term "indigenous**" to be more in keeping with the realities of the people in the district.
17. Communities should **evaluate agencies** that want to work with them

PROJECTS INTENDED TO MODIFY MAYAN LAND USE IN TOLEDO

1953-1996

No. 1 VENUE: CRIQUE SARCO, OTOXHA

VICTIMS: KEKCHI MAYA INDIANS

AGENCY: LAND USE SURVEY

PERIOD: 1953 – 1958

PURPOSE: To try to modify traditional Milpa farming methods of Kekchi Maya by:

(1) Demonstration Plots (fertilizers, weedicides, planting distance etc) Otoxha.

(2) Layout for 20, 100-Acre family farms (boundary surveys, soil survey, delineation of parcels for permanent crops and milpa crops, access farm trails and supervision for first four years).

RESULTS: (1) UNSATISFACTORY. Slight increase in maize yields in Otoxha plots, but quality of maize produced not acceptable to Mayas who prefer large cobs, which suit their storage facilities, to an increase in yield of small cobs which are used only for food for pigs and chickens.

(2) CRIQUE SARCO family farm did well for first year or two, but news of Kekchi families actually having ownership rights to 100 acres prompted a strong invasion of distant family members from Guatemala, who on ethnic (egalitarian) grounds, could not be refused a share in the family good fortune. Despite the best efforts of a resident agronomist brought

out from England and responsible for over-seeing the development of the project, the project was abandoned after 4 years.

APPROXIMATE COST OF THESE EXPERIMENTS: 1500 pounds (excluding cost of Agronomist, who was sent out to be the "Kekchi Liaison Officer" for southern Toledo in 1945 and not paid from Land Use Survey funds).

(* OR DO YOU PREFER THE TERM "TARGETED" FARMERS – implying ultimate destruction).

No. 2 VENUE: NEAR CRIQUE JUTE MOPAN MAYA VILLAGE ON COLOMBIA RIVER, AND NEAR MOPAN MAYA VILLAGE OF PUEBLO VIEJO.

VICTIMS: MOPAN MAYA INDIANS.

AGENCY: COLONIAL FORESTRY DEPARTMENT. (CHIEF FORESTER, MR. CHARLES CREE).

PERIOD: 1945 – 1954

PURPOSE: Re-aforestation of old milpa farmland by planting Mahogany Saplings to regenerate Mahogany forest (TAUNGYA METHOD).

RESULTS: INITIALLY VERY GOOD. Mayan farmers paid small sum to Plant two-year old Milpa Huamil with small Mahogany saplings from local nurseries managed by forestry staff. Individual trees cleaned frequently by co-operating farmers during first three years. Excellent growth (20 ft. in 5 years) but projects abandoned in 1954 for lack of funds. (Some fully-grown mature trees can still be seen at Crique Jute locality).

APPROXIMATE COST OF THIS EXPERIMENT: Not known. Might be in record Book of P.G. District Commissioner for 1946, if still available. Also there must be records by Forest Officer – Coye and Chief Forester C. Cree during period 1946 – 1950.

[From 1958 to about 1975 there appears to have been little investment of overseas money in the Milpa problem of Toledo. Nor, indeed, any in improving agricultural development in Toledo, which then reverted to normal agricultural staff paid by the G.O.B. In about 1976, the Land Resources Development Division in Tolworth, England, sent out a team to undertake a new soil survey of the Belize River Valley and three members of this team were briefly diverted to Toledo to examine the soils in the Blue Creek Area. This initiative was probably requested by the **BERL –CAWTHRON CONSORTIUM OF New Zealand** who was engaged in studying the land use potential of different areas in Belize. No record of the Berl Cawthron final report exists in Toledo, but it may have been written in about 1976. They visited Toledo about 3 times and drew up schemes for AGRICULTURAL DEVELOPMENT IN THE SANTA TERESA AREA. Three experts for 10 days total fieldwork, - perhaps 30man/days at $100 per day: - some total of $3000 chargeable to Toledo activity. In 1976 G.O.B. requested assistance from the British Overseas Development Administration (O.D.A), - by then O.D.A. had become the parent body of the L.R.D group, - to work in Toledo to IMPROVE RURAL LIVING STANDARDS, and thus the Toledo Research and Development Project (T.R.D.P.) was born].

No. 3 VENUE: OPERATING FROM A SITE NEAR BLUE CREEK VILLAGE, T.R.D.P. SLOWLY EXPANDED TO SEVERAL SMALL FIELD EXPERIMENT SITES, THE CHIEF OF WHICH WAS NEAR SAN PEDRO COLUMBIA VILLAGE.

VICTIMS: BOTH KEKCHI AND MOPAN MAYA INDIANS

AGENCY: O.D.A., T.R.D.P.

PERIOD: 1976 – 1986

PURPOSE: Improved methods of land utilization in the Toledo District.

RESULTS: RELATIVELY INSIGNIFICANT. Considering the costs involved; the long duration of the project (10 years); the highly trained staff employed, and the willingness of Maya farmers to co-operate. The first two years were spent in creating a well-equipped research station from which the overseas experts could operate in comparative comfort. With all these advantages T.R.D.P. failed because they made no significant permanent impact on rural living standards. They studied the soils and their reaction to fertilizers; they studied the plants and their reaction to herbicide and a wide range of chemicals; - they studied just about everything except the Maya Indians whose living standards they were supposed to "improve". In the early days they did employ a very competent Socio-Anthropologist but after two years (while they were building the research station) she left the team, and thereafter her work was largely ignored.

T.R.D.P. simply did not believe that research into land use begins with a competent study of the people and their use of the land.

APPROXIMATE COST OF THE EXPERIMENT: Not known. Probably about $30 million.

No. 4 VENUE: CROWN LAND FORMERLY PARTS OF CRAMER ESTATES:

"MOHO PROJECT".

VICTIMS: NONE (RELATIVELY UNINHABITED AREA)

AGENCY: BARBADOS REGIONAL OFFICE OF O.D.A.

PERIOD: 1985 – 1986

PURPOSE: EXPLORATORY SURVEY of former Cramer Estates Lands to determine if they would be suited for large-scale citrus orchards.

RESULTS: NEGATIVE. Not suited for large-scale citrus plantation. Some Potential for small farms (30 –50 acre sections) development with tree crops including some citrus.

COST OF THE PROJECT: Soil surveyor for 3 weeks, $3,000.00

Note: This conclusion was not accepted by O.D.A., who followed up with a visit of five experts for six weeks (approximate cost $25,000.00) who carried out a feasibility study and confirmed the correctness of the exploratory survey.

No. 5 VENUE: TOLEDO MAYA FARMERS IN GENERAL

VICTIMS: TOLEDO MAYA FARMERS IN GENERAL

AGENCY: U.S.A.I.D. USING VOLUNTEERS IN TECHNICAL ASSISTANCE (A U.S. BASED PVO)

PERIOD: 1988 –1992

PURPOSE: To establish a viable export oriented industry amongst small farmers in the Toledo District, and to promote improved Maya Milpa Cropping Systems.

RESULTS: MINIMAL. TAMP selected cacao as a viable export – oriented crop and created several multi-purpose village centers where the farmer's cacao beans could be cleaned, fermented, dried and stored for export. Cacao was in competition with the much more lucrative export crop, Marijuana, and as the world price for cacao steadily fall, the price for illicit Marijuana rose steadily, and the village centers became of little significance. The promotion of improvements in Maya Milpa farming included hand terracing of hillsides and other landscaping that promoted some spectacular erosion. They did however promote some planting of improved vegetable varieties, although sale of produce proved difficult in the small urban market in Punta Gorda.

COST OF THIS PROJECT: has never been divulged publicly. TAMP finished abruptly and in general financial and organizational disarray.

[A project known as "MILPA" – measures for improving local practices in agriculture – was promoted in 1987, for funding by U.S.A.I.D., CARE and others, scheduled for 1988, 1989 and 1990. It would seem that this project never got off the ground in Toledo, although they did write an unusually good analysis of the Mayan Farming situation (John Link)].

[A Belizean group very active in Toledo at this time (around 1989-93) was BEST but they failed to make much permanent improvement in the Mayan farming pattern and the Maya Indians remember them as a carload of people who came down at short notice and expected to be fed a chicken dinner, - often on a Sunday].

No. 6 VENUE: LOWLAND TOLEDO (NOT INDIAN RESERVATION LANDS).

VICTIMS: ANY MAYAN FARMER IN TOLEDO WITH SECURE TITLE TO A PARCEL OF LAND.

AGENCY: INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (I.F.A.D.)

PERIOD: 1987 – 1990

PURPOSE: To replace shifting cultivation by settled farming, to improve agricultural production through technological innovations; to improve extension services, and to facilitate access to credit and marketing systems.

RESULTS: LITTLE INPACT on the main group of Milpa Farmers within Indian Reserves, and not much success with the small groups of Mayan farmers who had, or sought, individual title to land. Credit facilities often abused. Too much time spent on design of theoretical family farm units for unused national lands, and little or no time spent on essential matters such as locating new farms in areas with a road access; suitable locations for schools or health clinics and with adequate supplies of potable water. All of these are matters, which have to be planned before individual family farm holdings are allocated, and this matter was not within the power of IFAD to decide.

Most farmers who became interested in the IFAD scheme had fixed preference for a particular location, which often had no reliable domestic water supply or were remote from existing access roads.

COST OF THE PROJECT:

No. 7 VENUE: MAINLY MAYA INDIAN VILLAGES BORDERING THE COLUMBIA RIVER FOREST RESERVE

VICTIMS: INHABITANTS OF THESE VILLAGES, VERY FEW OF WHO HAVE SECURE TITLE TO A PARCEL OF NATIONAL LAND?

AGENCY: NARMAP (NATIONAL RESOURCE MANAGEMENT AND PROTECTION) PROJECT.
A CO-OPERATIVE PROJECT BETWEEN THE GOVERNMENT OF BELIZE AND THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, WITH ADDITIONAL FINANCIAL ASSISTANCE FROM THE WORLD WILDLIFE FUND AND THE WINROCK INSTITUTE FOR AGRICULTURAL DEVELOPMENT.

PERIOD: 19 - 19

RESULTS: VERY PATCHY. NARMAP staff probably learned more from the Maya Indians than the latter from NARMAP.

COST OF THE PROJECT IN TOLEDO: Still being calculated, probably very high.

EXPERIENCE GAINED FROM THE SEVEN PROJECTS OPERATING DURING THE PAST 50 YEARS – tend to reinforce the comments of qualified Socio-Anthropologist to the effect that Maya Indians have indigenous systems of land use that tends to preserve their environment rather than damage it. They are brought up with the basic ideas of stewardship and only in very recent years have they come in contact with modern ideas of land being something that can be bought and sold; used to it's maximum capacity and then sold or traded to another person. Because of their philosophy of "Stewardship", they naturally look with suspicion at many of the practices advocated by overseas agronomists and foresters. However, this is slowly changing and most Mayan families are now feeling in varying degree the need to join in the striving to generate some cash from their farming efforts. But there is still a lot of conflict in their thinking: How much of their activity should be devoted to generating cash and how much devoted to subsistence activity which has ruled their lives for so many generations. Many overseas experts are not fully aware of this inner conflict and that is one reason why at least one Socio-anthropologist should be constantly available to explain why things go wrong for the overseas experts. You must study the people before you study the landscape, geology, soils, natural plant cover, etc., if you want to promote changes of potential economic advantage to the Belizean Nation.

The second lesson from the virtual failure of the previous seven projects is that it is unwise to assume that today's Maya Indians are a homogenous entity. There are not only two linguistic groups (some speaking the Mopan Language and some the Kekchi Language), which have to be recognized and often treated separately. Within both of these linguistic groups, there are individuals and families and even villages in different stages of evolution towards full acceptance of the need to participate in the new cash economy.

You will always find some that are less than enthusiastic about growing more cash crops, and others who will grasp every opportunity to get richer than their neighbors grow, in any village. This represents an inevitable breakdown of their ethnic policy of "egalitarianism" which originally ensured that no individual should start something new without the approval of the majority in any community. Communal activity is still strongly ingrained in the Mayas way of life and anyone who quickly accepts the innovation that you are suggesting may have to remove himself from his inherited community. Change is in progress, and moving quite quickly, but if you force the issue and demand rapid acceptance of some innovation, you are almost certain to arouse resentment of the communal majority.

In 1952 there were still a few of the smaller, remote villages where almost nothing was grown for sale, although pigs were being considered by one or two villages as a possible means of getting some cash, since they could be driven along the forest trails to buyers in Punta Gorda. Within two years almost all the Maya villages were concentrating on raring pigs. To feed the pigs on corn all farmers brgan to make much larger milpas, double or tripple their former size; and usually a considerable distance away from the village, since pigs were only penned at night (jaguar problems) and roomed in the bush all around the village by day. It was in part a communal activity, but each family had to grow the corn for their own pigs, fed while penned. Cash from the sale of pigs went into purchase of metal pots (gradually replacing their home-made clay pots) kerosene, matches and salt. Within 10 years, the local pig market became over-supplied and the family milpa shrank back to its former size about an acre. By about 1960, there was a growing demand for corn needed by the growing urban non-Maya? populations, - and once again the size of the milpas expanded, even up to 6 or 8 acres which is getting near the limit for communal labor force available in small villages.

To get the corn out to markets, access roads begin to appear and a truck traffic developed. Goods purchased from the sale of corn returned to the villages in otherwise empty trucks and shops began to appear in those villages where the village consensus so permitted.

During the 60's participation in the cash economy began to separate the population into two categories: those villages or individual families that went all out to get and enhanced cash income, as opposed to villages or individuals who grew and sold just enough to meet their home requirements. Beyond the limit of the access road, most villages took to growing rain-fed crops, which were carried on back, mules or horses down to truck on nearest access road. Each extension to the access roads led to a potential increase in the cash economy of more and more Maya Indians. Small proportion of the Mayan population began to drift away from their natal village communities to reposition themselves as individual farm families on land bought, rented or borrowed in the vicinity of a major road. These new Mayan farmers living adjacent to a major road soon became numerous enough to re-create new villages, which still adhered to the traditional alcalde-type of village organization, but were never as strong communally as the villages they came from. This drift towards a cash economy is still very active; the pioneers are still relatively small in number but the move is growing stronger each year. On their new farms, the emphasis is on permanent tree and livestock as the main source of cash, and a small plot of rain-fed rice, corn, or ground foods sweet potatoes\cassavas etc.) to act as subsistence crops. Citrus has become the main cash crop, with cacao as a useful secondary cash crop.

Any overseas organization involved in up-grading the methods of land use by Maya Indians, does have to take into account at least three different stages of an ongoing process

(a) the more remote and poorest villages where rain-fed rice is the main cash crop.

(b) the biggest group of relatively affluent Mayas shipping out a wide range of cereal, root and fruit crops partly grown by the milpa system and

(c) It has to be emphasized that this is an on-going process. If Belize could afford to wait for another 50 years and given continuous up-grading of access roads the Mayas will have found their own way into group(s) and would be contributing greatly to the economy of their country, and Indian Reservations would no longer be needed.

To destroy the present reservation boundaries right-away, with the stroke of a political pen would be exceptionally foolish. For those presently within an official reserve boundary, it is a considerable comfort to know that you are on land that is communally controlled, and it is difficult for any part be sold or leased to non-Mayans without consent of the community. On the other hand, if you and your family wish to use a portion of the reservation for permanent crops, or permanent – for-life farming operations. This can be arranged by paying annual rental charges to the alcalde, - provided always that the community is in agreement that it may be extended to an eldest son when the farmer dies, if the community agrees. Within a reservation certain ethnic standards can prevail and old customs can be better preserved. Nowadays, it probably has a very little to do with delaying progressive agriculture; but it certainly does facilitate getting together a labor force for planting or harvesting at minimal cost.

APPENDIX 1

Chronology of Activities

April, 1998
first discussion with Mr. Fred Hunter Jr. Project Manager and Ms. Lucia Ellis Social Planner on the possibility of doing the consultancy.

April 1998-November 1998
discussions on the direction of the consultancy

November 1998
signing the contract

January 1999
discussion with IDB Consultant Mr.Ricardo Moreno on modifications on the scope of the Workshop

January 25-27, 1999
the Workshop in Punta Gorda

January, 1999
inteviews with community leaders

March 18-19,1999
briefing the Project Steering Committee in Placencia

July 1999
handing in the final draft report

APPENDIX 2

DRAFT REPORTS BY CHARLES WRIGHT

The Fifty Million Dollar Question

C. Wright

In a press release following a meeting between the Prime Minister and The Toledo Alcaldes' Association in January 1995, in Belmopan, a statement was made that $50,000,000 had been expended on Maya farmers during the past 20 years, - and there was nothing to show for it!

That is a very large sum of money by Belizean standards and by implication it was evident that the Mayan farmers were being held responsible for this money being wasted. Let us look more closely at our Toledo $50,000,000 question, (T.F.M.D.Q). The story begins some 50 years ago when the colonial government of British Honduras was in place. That place was usually Belize City and only very rare visits to the Toledo back country were attempted by Agricultural Officials. It was reputed to be a wet, muddy place full of slippery trails, perilous log bridges, snakes, no comfortable proper overnight accommodation, as well as infested by hordes of mosquitoes that made sleeping in a hammock almost impossible. It perhaps is not surprising that those who did visit Toledo emerged from the experience loudly claiming the Mayan Indians were eroding the landscape by cutting down and burning the forest to make milpas for growing their staple food crop, corn. However, the foresters of those colonial days were made of sterner stuff. They penetrated to even the most remote villages and devised plans whereby abandoned milpas might be reforested with valuable timber species, and pointed out the success of the Taunaya technique as used with teak trees in Burma. This Taunaya technique was simple enough, and depended upon the paid co-operation of Milpa farmers to tend the small trees (removing vines and other weeds from around each sapling until they are were old enough to rise above the natural regenerating forest canopy.) Two trial areas were selected, one near the villages of Crique Jute (now known as "Salamanca") And one in the vicinity of Pueblo Viejo. The Maya farmers in both localities readily participated in the scheme until, after about 8 years, the (Colonial Forestry Dept.) money ran out. By then several dozen acres of established mahogany, gmelina and several other species, were large enough to withstand competition from native tree and some of these Taunaya plantation are still alive today as witness to the successful partnership between foresters and indigenous Maya farmers. No figures are available, but the cost to the colonial government was probably less than $2000 per year.

In about 1950 the Mayans of the hinterland were being mentioned in the United Kingdom press as being "abandoned and neglected" by the colonial government and the fuss that resulted finally got to the stage where question were being asked in the U.K. House of Lords. The then Governor of British Honduras, Ronald Garvey, asked for assistance from the Colonial office in London and in due course their chief scientist, Dr. Geoffrey Herklots, came to Belize City for a consultation. It was decided that no immediate action would be taken to resolve the Maya Indian

problem, but that a team would be assembled to visit British Honduras for the purpose of making an "Ecological Land Use Survey" of the whole colony, involving preparation of soil, vegetation and land use maps. By the time this team had been recruited, Governor Garvey had moved on to the Island of Fiji, in the Pacific Ocean, but before his departure he left a memorandum for the incoming governor, Patrick Rennison, suggesting that the Toledo District should be examined by the Land Use Team as a matter of urgent priority. The Land Use Team arrived in British Honduras on October 20th, 1952; just a few weeks ahead of the new Governor. Survey work had already begun in the Corozal District, but at Rennison's request, part of the team was detached to start work in Toledo, and asked to give a special attention to the alleged plight of the Maya Indians. The Chief Agricultural Officer in Belize City, Mr. Goodban, also added a request that special attention should be paid to the widespread destruction of the Toledo environment allegedly caused by milpa farmers. After several months of fieldwork visiting every Mayan village in Toledo, team members reported that both matters had been considerably exaggerated, and that their concern had arisen mainly as a result of second-hand, incorrect information. If anything, the Colonial Office in London was at fault by parsimonious funding of their staff in British Honduras, which provided them with an excuse to avoid uncomfortable travelling to, and within, Toledo. The Land Use Survey had a budget of £200,000 for 3 years of survey activity in British Honduras. When the team completed the survey of the whole country in six months less than the allotted time, £20,000 was left unspent, and our financial record book showed that out of the total of £180,000 spent, only a mere £15,000 was actually spent on work in Toledo. In their book "Land in British Honduras" (Published in 1958), the team reported that the Mayan milpa system for growing essential food crops was not damaging to the soil, and was probably the only method of sustainable agricultural production possible for the rugged limestone hill soils of Toledo. Forest regeneration was adequate to sustain a fallow period of 8 to 10 years between corn harvest, and provided that the milpa farming population remained fairly stable, the indigenous system could probably function indefinitely.

Since these conclusions were so much at odds with current misconceptions, the team, assisted voluntarily by their Mayan hosts, carried in fertilizers, weed-killers and other chemicals to run trials on newly planted corn milpas; but very few of the various amendments added to the soil gave an economic return by way of increased yields of corn. Trials with planting of rows of single seeds planted on contour gave only about 1/10 of the corn yield from seeds sown by the traditional Mayan method. The team left Toledo with quite a high regard for the Mayan farmers who had evolved a farming system that was finely tuned to suit their chosen environment.

As far back as 1952, there was already strong feeling in the colony that Mayan farming would eventually have to be changed from "shifting agriculture to permanent agriculture." This team did a little extra research on this topic on a parcel of crown land right across the Temash River from the small Indian Reservation allocated for the villagers of Crique Sarco. The latter complained that their legal reservation of about 1500 acres would soon be too small for the 20 families of Crique Sarco village. From the colonial authorities in Belize City the team obtained permission for an extension amounting to 2000 acres of adjacent crown land just across the river. While working in the area the team surveyed, cut, and marked out 20 farms of 100 acres each and distributed these amongst the 20 families by Ballot. The team also surveyed the soils on each family's section and designated suitable methods of land use for each kind of soil. For each farm there were soils alongside the river suited for coconuts or citrus trees; followed by a strip of

flat land with soils more suited for rice growing) thence, moving away from the river, was a strip of soils suited for milpa crops or pasture for livestock, and for a house site; next came strip of rolling to hilly soils well suited to corn and other
annual crops; finally, at the back of each section, there were soils well-adapted to cacao, coffee, nutmeg and some other tree crops. The villagers enthusiastically helped with the survey work without cost and each family started to accumulate house-building materials. A recent recruit from England, Mr. Owen-Lewis, joined the Land Use Survey Team in 1953 and settled down in Crique Sarco to learn their dialect (Kekchi) and supervise the development of the New Farms. When last visited in 1954, all was going very well. Mr. Owen-Lewis stayed on in Crique Sarco as Kekchi Liaison Officer for the British Honduras Colonial Government for the next 9 years, after the rest of the Land Use Survey Team returned home. This experiment also was a complete failure, and the reason reported by Owen-Lewis was a totally unexpected one. For the first three years all went well, but the news had by then spread far and wide (especially amongst Mayans living in Guatemala) and whole families that could claim kinship (however remote) with the lucky owner of a whole block of 100 acres at Crique Sarco who then became inundated with relatives expecting to share his good fortune, well knowing that even a request would be very difficult to refuse on Ethnic and traditional grounds. So the sections rapidly became home for many new families and all hope of maintaining a rational pattern of land use became impossible. Owen-Lewis had perforce to abandon the project. At the outset, the Land Use Team had forgotten an important precept: you must first study the people, before you evaluate the soils. It cost the Land Use Survey Team very little to learn this basic precept because they lived rent face in the village, had no transport requirement and had free labour provided by the villagers. This survey work was a part of this normal land use assessment of the colony. Thus there was no debit entries in the account book concerning this experiment. This team was very fortunate to learn a lesson so cheaply as the rest of the story will reveal.

During the years leading up to Independence, when British Honduras became Belize and Colonial administration was gradually phased out, this recommendation of the Land Use Survey were broadly followed. Much of the crown land of Belize was reclassified as Forest Reserve, and controlled timber and chicle production became a major source of income and employment for much of the Belizean population. However, on the eve of Independence, a national panic created by the infamous Downie Report, saw many good colonial forestry staff take their leave and literally millions of timber trees were ruthlessly cut down to bolster up the reserve of national income against the day when colonial office income would be sharply reduced. National attention henceforth became focussed on Agricultural Development; Forestry Development generally and the Land Use problems of the Toledo District in particular, were seldom mentioned again until about 1975.

At this point in time, some 20 years after the “Land in British Honduras” was completed, it was noticed that the forgotten district of Toledo was not contributing much to the National Economy, despite a very noticeable increase in the amount of land under Mayan milpa production. It was suggested that continuing growth of the population within the various Mayan Indian Reservations was putting pressure on available land resources and the appropriate solution would be to encourage a more settled system of farming, which might lead to a greater production of cash crops. Accordingly in 1978 an approach was made to the British Ministry of Overseas Development for technical assistance. The target for this assistance was clearly the Mayan

Farmer and, a base of operations, a “pilot farm” site was located near the relatively new village of Blue Creek located in a lowland situation, but just outside the hilly terrain where most Mayan milperos live and grow their crops. The concept of a “pilot farm” was mooted in 1978, but over the next two years it gradually emerged that what was in progress was a fully equipped agricultural research station where expatriate agronomists could have modern houses equipped with hot and cold water, electricity, laboratories, office facilities and a mechanical workshop. This proved to be a very expensive operation, and until these facilities were ready, there was this further expense of renting accommodation in Belmopan or Belize City, including costs for vehicles, and fuel to the agronomists to pay brief visits to Toledo. The original plan was to work in Toledo for two years, but by 1980 the “pilot farm” was still incomplete and further funding from the sponsors was requested. No particular accommodation had been provided for the sociologist, who had meanwhile been living in the Mayan village to complete a “base-line study” which later proved to be most valuable when completed in 1982. Mayan youths supplied part of the labour force for the research station, appreciative of a little extra cash income, which was mostly delivered to their families in the villages. Mayan farmers approached by the agronomists were generally docile and friendly enough, - but far from expecting that much good would come out from all this activity. A lot of time was spent by the agronomists in trying out new varieties of crop plants on the research station, but few survived field testing on the farmers own land. New weedicides, pesticides, etc., and a variety of fertilizer combinations were successful on the research station plots; but on the farmers’ land, any improvement in crop yields turned out to be insignificant in comparison with the costs involved. Much work was done on mechanised rice production on the wet soils of the lowland adjacent to the station but this was abandoned when adequate control of water proved very difficult. Even if this had been a successful venture, the sociologist warned that few right-thinking Maya families would have considered leaving their life in a hill village to take up solitary existence in a swamp. Thus much of the painstaking research proved unrealistic when introduced into the Mayan way of life. The Mayans well knew that, over the centuries, they had evolved a way of life which, although needing hard work and community activity was safe, and guaranteed that they would never starve.

There was brief burst of excitement when the agronomists proved that Mucuna introduced into the milpa cycle could increase yields of corn but when one of the Mayan station labourers (Mr. Florentino Salam) took the agronomist to see his farm where he had been using Mucuna with great success for the past nine years (having obtained the seed from his father who had helped the Local Catholic priest on a non defunct agricultural experimental area close by San Antonio village.) Whereupon the brief excitement died down. No one could explain why no other Mayan farmer had followed Florentino’s lead; except the sociologist who had pointed out that Mayans in general looked with some suspicion at such a new idea being introduced into their time-tested ethnic practices, since it might take 30 years to show that the new idea was friendly to the environment and their established farming system. If one individual farmer was willing to take the risk, all well and good. Only now after 9 years, were some of Florentino’s neighbour asking him for seed. One of his neighbours (Mr. Basilio Ah) found that Mucuna was too palatable and lost seeds to rodents and oppossums, and consequently was doing his own research to replace Mucuna seed with a less palatable legume seed. Both of these two pioneer Maya agronomists lived on 30 acre farms within the San Antonio reservation boundary, leased annually from the Alcalde of that village and with the right to remain on their farms so long as they maintain their cropping programme as originally agreed. Such reservation farmers sell or

sub-let their land but can remain so long as they pay their annual rent. There are no other restrictions. They are free to experiment to their hearts content. This interesting case to some extent explodes the theory held by many expatriate agronomists, - that agricultural improvement cannot be expected from farmers unless they have legal title to their land. In the case of Mr. Basilio Ah (who, incidentally, was recruited as an assistant to the 1952-54 Land Use Survey) he has clearly shown that full legal ownership of a parcel of land is not a prerequisite for introduction of new agricultural practices. He cannot sell his farm, nor use it as colateral for bank loans, but he can live on it for his lifetime, raise a large family and should one of his sons so desire, his son can ask permission of the Alcalde for the right to continue the current arrangement in his own name. This lifetime stewardship of a parcel of land within an Indian reservation keeps a Mayan farmer satisfyingly in close contact with ethnic responsibilities and eventually may encourage a neighbour to try new ideas. This indeed may be the best way to speed-up change in Mayan agricultural development in Toledo. The total cost of the T.R.D.P. adventure was certainly very large indeed, but it may have been money well spent. At least T.R.D.P. left behind an honest report of their failures. They probably failed because they were lacking a full-time sociologist to advise them:- People not only soils are the important thing to understand when working with Mayans in Toledo.

After this analysis of T.R.D.P. activity, the $50 million dollar question becomes a more valid argument but, on analysis, much of the money was spent on creating comfortable living conditions for the agronomists, their per diem and transport requirements. It is indeed on record that only some $300,000BZ. was injected yearly into the economy of Toledo during the period 1981-1986 of which only a small part of this amount actually reached the Mayan farming communities. Basically, it would seem that T.R.D.P was created mainly to provide “Jobs for the boys,” otherwise unemployed at that time on the over large staff of this Overseas Development Ministry (O.D.M.) in England. In total, the Mayan farmers gained very little from eight year of T.R.D.P. operations, - and they became progressively more skeptical as the years passed.

T.R.D.P. was followed by a group with the depressing name of TAMP (which implies effective blockage, but which stood for Toledo Agricultural Marketing Project.) This project was funded by U.S.A.I.D., and implemented by volunteers in technical assistance - a U.S. based P.V.O. TAMP arrived in 1988 and collapsed in financial and organizational insolvency in about 1992. This was a period of relative prosperity for the population of Toledo, to which the Mayans were enthusiastically contributing, by the clandestine growing of Marijuana as a new cash crop in the more remote milpa locations. In this illegitimate trade the Mayans showed initiative and their reliability as farmers. Without any visible outside assistance and a complete absence of government expertise, Mayan farmers managed to acquire marijuana seed, select the most promising plants for local conditions, build up stocks of seed of promising varieties and very quickly acquired skill in growing, harvesting and processing a high quality “sinsemilla” product, in quantities that almost over-whelmed the clandestine marketing facilities available at that time. Cars, trucks, new cement block houses, solar panel electricity all began to appear like magic in many villages. In at least three of these same villages, housewives were complaining of a lack of corn to make their traditional tortillas, white flour tortilla, were not immediately accepted as a substitute.

Clearly, this was not the best time for something called TAMP to make it debut. The primary purpose of TAMP was promulgated as being to establish a viable expert-oriented industry amongst small farmers in the Toledo District: - precisely what Mayans were in process of achieving without any assistance. The omissions of the word 'legal' was the only thing missing. TAMP zeroed in on cacao as being a viable export-oriented crop, and went ahead establishing a multipurpose village service centre where cacao beans could be cleaned, fermented, dried and stored for export. These village centres also sold fertilizers, chemicals for spraying and equipment for pruning trees. Although the area planted to cacao did at first increase, the cash income obtained from this crop was very small compared with profits from the illicit marijuana, and the cacao venture collapsed very rapidly when the world price for cacao beans fell drastically. As a second venture, TAMP also tried to promote improved milpa cropping systems (I.M.C.S.). These included sowing lucaena and mucuna beans at contour intervals and terracing by hand in places with steep slopes. TAMP inherited the myth from T.R.D.P. that declining soil fertility was being caused by erosion, but only succeeded in demonstrating that real erosion could occur on the steep slopes they were so industriously terracing. T.A.M.P. did have some success in promoting planting of new vegetable crops amongst traditional milpa crops, but many of these crops fell into disfavour when they proved difficult to sell on the small local market in Punta Gorda. The T.A.M.P. finished rather abruptly and in some financial and organisational disarray.

In 1987 a Toledo Small Farmers Development Project (T.S.F.D.P.) appeared. This was funded by the International Fund for Agricultural Development (I.F.A.D.), with headquarters in Italy, supported at that time mainly by funding from Saudi Arabia. For the third time, the aim of this project was to replace shifting cultivation by settled farming; and designed to improve agricultural production through technical innovations, improved extension services, provision of access to credit and better marketing arrangements.

To participate in T.S.F.D.P., it was essential that a farmer must have secure title to his land, which also must have an average slope of less than 20 degrees. These two conditions effectively eliminated 90% of Mayan milpa farmers. Thus IFAD avoided dealing with Maya farming problems and spent much of their time planning economic family farm units for lowland situations on unused crown land. Some excellent designs, theoretically suited for different soils each with a planned rotational scheme using a variety of annual crops and permanent tree crops were created but this proved to be largely a theoretical exercise which could not be put into effect because each farm had to be sited in a locality with reliable domestic water supply; connection with an access road, and proximity to central village amenities such as a school, health post, etc. This amounted to landscape planning on a grand scale far beyond the scope of the government of Belize, at that time. This effort in local planning, to some extent repeated that done earlier by the New Zealand funded Berl-Cawthron Consortium, which although not specifically concentrating on Toledo, had produced similar plans for small farm development before effective planning of small farm units could be attempted, and very few of the efforts made by T.S.F.D.P. were applicable to the Maya milpero farmers who mostly lacked legal title to their land and could not meet the topographic requirements. The few Mayan Farmers who were tempted by the IFAD planning exercise and used their land as collateral for loans to carry out the IFAD project soon learned that cash sales of their agricultural products could not balance the high annual interest charged by the government loaning agency; and they perforce retreated back

to the safe life of the Indian Reservation. Thus I.F.A.D.'s first venture into Toledo agricultural affairs was not a happy one since it did not take into account the realities of the local situation. However, some of their small farm land use plans may prove to be of some value in the future, especially if Mayan farmers continue their slow move down into lowland situations.

This brings us to the latest entry in the $50 million dollar sweepstake, a project known in Toledo as "N.A.R.M.A.P." This is really more of a nation-wide project not specific to Toledo, although some members of the NARMAP staff have spent considerable time and money trying to solve some aspects of the Maya milpa problem. The name NARMAP stands for "Natural Resource Management and Protection Project" which was a co-operative activity between the Government of Belize (GOB) and the United States Agency for International Development (USAID) with financial assistance from the World Wildlife Fund and the Winrock Institute for Agricultural Development. The NARMAP Project had, as its main aim, seeking to find a balance between agricultural development and preservation of natural resources, - in short agricultural production on a sustainable basis without damage to the environment. Their sustainable agricultural production (S.A.P.) was designed for application "in ecologically fragile areas bordering protected forest reserves." The target area for their work in Toledo was to be Mayan Indian villages and other Mayan settlement localities along the Southern Boundary of the Columbia River and Maya Mountain Forest Reserves. That much is clear from their preamble, but it is not stated why these Mayan are considered to be living in an "ecologically fragile area." What N.A.R.M.A.P were probably trying to imply was that Mayan living in the vicinity of a forest reserve are considered to be inevitably under temptation to extend their milpa practices into the forest reserves.

Not so, any sociologist, or for that matter anyone living in the district for the past 40 years, could confirm that Mayan farmers of the San Pedro Columbia - San Antonio Indian Reservation had largely kept within their allotted official boundary for at least twenty years. The only major transgression of this boundary occurred in the Jimmycut sector when Sandy Hunter (later Sir Alexander Hunter), the First Minister of Natural Resources in the government of independent Belize, allowed an extension of 2000 acres into the adjoining forest reserve, which was used by about 5 families for 3 years and then abandoned because of inadequate water. A little preliminary work by any sociologist could have explained to NARMAP that the Mayan milperos well knew that most of the Forest Reserve was lacking in reliable supply of surface waters and thus was under no real threat of general invasion by Milpa farmers. In other words, the target area chosen by NARMAP is no more "ecologically fragile" than any other part of Toledo where Milperos operate. If anything the "ecological fragile" part of the landscape was the Forest Reserve itself and this was something the local Mayas well knew.

In collecting baseline survey date, NARMAP laid the usual stress on the concept that declining crop yields were due to declining soil fertility, caused by a population increase and consequently a need to use land for milpa crops with reduced intervals of forest fallow between crops. Some sociologists are not entirely happy with this explanation, pointing out that during this past 40 years there have been progressive changes in the Mayan life-style. Only two generations ago the head of each farming family determined the size of his annual milpa according to the number of mouths he expected to have to feed and how much assistance at planting and harvesting time he could expect from relatives within his extended family and from friends. In those days, milpas

were usually not large, the milpa/forest regeneration cycle was about 8-10 years duration, and agricultural products were mainly for home consumption. Any surplus production of corn was distributed amongst the family for feeding pigs and chickens. The creation of Indian reservations in 1925 did little to change the pattern of land use until about 1950, by which time access trail, sea or river to urban markets had improved to the point where pigs became an important "cash crop." For the first time the production of corn from a milpa increased and the chief limiting factor became the amount of free labour available within an extended family. Milpas tended to become larger as connection to external markets improved. This change originated first in the Indian reservations, but soon spread to distant villages who usually had only "de facto" reservations created by agreement between neighbouring village. Such milperos were freely operating on unused crown land. Many were recent immigrants from Guatemala and some milpa production mainly (red and black beans) were sold across the border. As milpa crops acquired a cash value, more attention was paid to planting around food and even non-perishable, semi-permanent, fruit crops, involving more work by individual families at a time when volunteer labour was becoming scarce. Hence the size of the annual milpa began to shrink back to something nearer its original size and the forest fallow period was shortened to about 5 years. Corn production mainly returned to its former place as a subsistence crop - security against starvation, but of minimum cash value. Raising corn by the milpa system requires a lot of hard work and at the present stage of the economic evolution of the Maya Indians no farmer is going to expend too much time and energy on an activity which has a minimal cash return. Corn is still respected as the "Food of the gods" but some ethnic precepts are inevitably weakening as condition are continually changing: at least the Mayan women are still insisting on corn for a daily production of corn tortillas, no matter how much extra work it makes for her. Incidentally, the changes in the Maya life-style have created another new problem of the housewife. Forty years aback all the refuse from her kitchen could be conveniently burned outside in a few minutes. Nowadays she has to decide how to dispose of a lot of empty tins, plastic bags and other non-inflammable refuse. Times have indeed changed for Maya housewives.

The main point concerning the NARMAP project, is that size of milpa and diminishing production of corn cannot be accepted as a sure indication that soil fertility is progressively deteriorating. Soil scientists would not accept this conclusion without better proof than has so far not been forthcoming. The present size of the milpa, and the alleged diminishing yields of corn may be more related to economic evolution rather than being indication of deteriorating soil conditions. This is not to decry the good work done by NARMAP, but to warn that they, like previous groups, may be starting with false assumptions. Another false assumption accepted by NARMAP was that secure legal title to a parcel of land was prerequisite for introduction of improved methods of land use, although later they did admit that lifetime use of a parcel of communal land, permitted by the alcalde of an Indian reservation, might be an acceptance alternative. NARMAP carried out a comprehensive search of published data on the value of legumes in helping to sustain soil fertility under humid tropical conditions, with possible need of artificial fertilizers in the case of certain soils. They also noted the principle of agro-forestry was becoming accepted by many Mayan farmers. They had less success in finding farmers willing to participate in the NARMAP project, and a number of these who had first signed up, subsequently withdrew. A massive public awareness campaign in the eight target villages, comprising a total of 684 households, elicited a response from only 18 farmers but when the proposed farming activities were fully outline, 7 of these farmers withdrew from the scheme mainly on the grounds

that they would not be able to give enough time to the field work required. The soil/crop management activities assigned to promote sedentary agriculture in Toledo under the sustainable agriculture production programme (S.A.P.) thus commenced in April 1994 with only eleven farmers willing to participate.

The results from the 1993/94 season were somewhat inconclusive (some milpas were destroyed by pigs, in other milpas birds destroyed young seedlings, and in a few cases farmers had a food shortage and perforce had to harvest the corn without informing NARMAP). The effect of mucuna sown as an intercrop with corn was minimal and only on a few soils did application of fertilizers show a marked improvement in crop yield. Useful results were obtained from only 6 farmers out of the eleven participants in the experiment.

Efforts were then made to interest more farmers in the project and the number of demonstration plots on farmers' land were increased. Considering the wide variation in the soils of the different plots, it is not surprising that the use of fertilizers again gave inconclusive results; but there was general agreement amongst the expanded group of farmers that if land was cleared but not burned before being oversown with mucuna for one year ahead of planting a corn crop; and if, subsequently, then the mucuna - dominated regrowth vegetation was slashed down to form a mulch into which corn seed was dibbled-in, an increased yield of corn at harvest time was quite notable. By 1995, it had been established that this technique appeared to sustain or improve soil fertility, and might thus be one clue to sustainable production of corn. Moreover, the method allowed, enhanced production of corn sown for a "mata hambre" crop during the dry season, - something that is finding increased favour amongst many Mayan farmers. The NARMAP project is due to close down in 1996, and so they will not be able to study degree of sustainability in the suggested legume-corn-legume-corn-forest regeneration cycle. Questions such as can a forest regrowth interval be done away with entirely may now arise in the mind of the farmers, but he is already grumbling about having to tend a milpa full of inedible mucuna for part of the year and the extra time spent in machete-work to create a mulch for sowing the corn. However, by eliminating a burning stage, he worries less about the safety of his permanent tree crops. Since corn is only a very minor "cash" crop at the present time, he cannot see much income being generated by the new system of land use; at least, not enough to repay him for the time spent on his extra labour required. At least one good reliable cash crop, one in steady demand at local markets, needs to be introduced into the system, at this point, if farmers are going to avoid the temptation of falling back on the slash -and -burn and forest fallow of their traditional system.

NARMAP has certainly done better than its five predecessors. Many more farmers have now been introduced to the value of legumes planted a year or so ahead of a corn crop, but NARMAP are leaving with their job less than half done, - and the Belize Department of Agriculture is not in shape to take over the work at the present time. Indications are that a fifth international group may appear on the scene in 1997. How can we help them get off to a quicker and better start?

First of all: put no faith in the old shibboleths still current outside Toledo: the Mayan Farmers are not a horde of hungry indigenous people straining at the leash to chop down the forest to raise more corn by their wasteful traditional system. The opposite picture is closer to the truth: Mayan farmers are hard-working people who over the centuries have evolved a system of subsistence

production that has proved to be sustainable and hence must be reckoned as being reasonably friendly to the environment. By and large most Mayans are comfortable with their chosen way of life, but when opportunity offers they have shown notable intelligence in modifying their traditional way of life to admit, and often prosper with, the growing of unfamiliar "cash" crops. They are no different from any other ethnic group of Belize in their striving for modern amenities (radios, television, computers etc.) and they go to great efforts to ensure that their brightest sons and daughters have the chance to acquire secondary, and sometimes University, education. They are too polite to deride openly your preconceived ideas about tropical agriculture, which is something they often know more about than you do. You need to learn before you can teach. Moreover, it is nice not to consider them as a homogenous group. There is more individuality in a group of Mayan farmers than we are accustomed to in our own ethnic assemblages. That is why each new group from overseas need at least on e competent resident sociologist on their staff: he or she will often be able to explain what will probably happen before things start to go wrong.

As past events have shown, these are not matters understood in Belmopan, and any initial briefing from such sources can be expected to be coloured by numerous ethnic superstitions, based on hearsay, which were never true in the first place. Nowadays there are eve a few local Maya India ladies who are University graduates with sociologist training, who could be incorporated into a new team from overseas but they should be required only to explain matters for team members and not used as a proselytizing force for the team. Mayan farmers are most strongly opposed to modern philoshophies upholding "women's lib." and your team sociologist, if Mayan, female, and youthful, may prove more of an irritant than a help when dealing with senior farmers in the Mayan villages. Although, if the team brings out its own sociologist, the local recruit will surely be useful in explaining the Mayan way of thinking to the alien sociologist. In combination both can be very effective.

As to the work that needs to be done by the new group from overseas, this largely a continuation of some aspects of the N.A.R.M.A.P., S.A.P. projects which had to be terminated for lack of time and funding. The new programme should be planned to operate for at least five years with assured funding for the whole period. Since many of the Mayan farming problems were not adequately solved by the previous experts from overseas, the main target for the new team remains the same:-the Mayan Indians, although the scope of the enquiry should now be broadened.

Firstly, recognition has to be made that there are three distinct categories of Mayan farmers representing three stages in the agricultural development process in three fairly geographically distinct situations.

A. There are the Mayas of the interior locations, difficult of access, living in relative small village groups, mainly without legal reservations, and not targeted by previous overseas groups.
B. Mayas of previously heavily "targeted" areas, mainly on the upland hilly and steepland, operating partly within legal reservations.
C. Mayas who have moved down, mainly on to the inner fringe of the coastal plain, usually located near the Southern Highway, only a few farmers have been somewhat targeted by previous projects.

The first group “A” is mainly typical milpa farmers (corn/rainfed rice); but some, as road access slowly improves, are experiencing with cash crops other than rice. The second group “B” have been the main target of TRDP, OMICS (TAMP) and SAP (NARMAP). Amongst the group are farmers who know about using legumes to sustain soil fertility. The third group “C” was targeted mainly by TSFDP (IFAD) Berl Cawthorn and some Belizean non-governmental organisations, including BEST. The Mayan farmers of this group are now mainly dependent on citrus as the main cash crop, supplemented by rainfed rice. In all three groups, corn and other milpa crops are still grown for subsistence purposes using mainly traditional methods but with some new modifications made necessary by limited availability of communal labour. The first decision to be made by an incoming group of experts is thus which Maya group they wish to work with. Should they work with the most traditional milperos, or one of the other two groups or with all three simultaneously? The team sociology will probably confirm the best response to new ideas will likely come from the first group, where an improvement in the economic situation is felt to be most urgent, and the Mayans have the feeling that they have been overlooked by previous overseas groups. In this case an incoming agronomist will need to know something about the mechanisms of traditional milpa farming used by group A.

This group of milperos still have some access to areas of tall forest (“high bush”) withing walking distance (up to 7 miles) of their villages, and this they prefer to use rather than 8 to 15 year old “Huamil.” Once the family choice was been approved by the alcalde, they mark the limits of their future milpa and, at some favorable date in March or April will proceed with axe and machete to cut down any bushes and small trees. When this done they tackle the large trees with axes and mechanical chain saws, crosscut saws and a machete. This work is mainly done by members of one extended Maya family. It is not done in a haphazard manner. Once the underbrush has been cut down, the larger trees in the centre of the milpa are felled first and the branches cut off and spread to form a thick and even carpet of rubbish so that, when dry, fire will spread fairly evenly. Around the marked perimeter of the new milpa, the larger trees are cut so that the crown falls towards the centre of the milpa and similarly dismembered. The perimeter of the milpa is thus left as clear as possible of fallen branches so that a fire will not readily escape into standing forest outside the perimeter, - thus forming a fairly effective natural firebreak. The demise of the forest are propitiated with prayers from the “owner” of the milpa and he alone circumambulates the milpa early in the morning swinging his clay censer with burning aromatic gum, usually from the Pome tree. Large trees of values for future house building and very large ceiba trees are usually not felled, but rubbish is often cleared from around their base to minimise damage by fire. Once completed, the site is left to dry out until, on some day judged to be propitious, and with a strong but steady breeze from one direction, all the family turn out to ignite the fire first on the downwind side, then on both flanks, and finally on the upwind side. As the fire takes hold the colour of the column of smoke is carefully watched, hoping that the initial white smoke will soon turn into a thick black column which will indicate a quick, intense burn. The owner of the milpa will have traveled around the perimeter very early in the morning asking the gods of the forest for a fast, hot, clean burn; and a black column of smoke is reward from the deities. The whole burning operation may take less than an hour and the land should be left covered with a layer of white ash, only a few inches in thickness. Every attempt is made to get a quick, fast burn and an even coverage of ash. Some of the larger branches and trunks may continue to burn all night.

Once, again, early, in the morning the owner of the milpa will arrive with sacks of corn seed and containers of drinking water. Before the invited planting group arrives, he makes another circuit with his Pome censer, and decides how to distribute his labour force, which will be his own male family members and some invited friends, amounting to some 20-30 persons in all. Each arrives carrying his own planting stick and bag for holding seed, which he fills from the bulk seed in the sacks. The owner lines up his planting assistant along one perimeter of the milpa, carefully spacing the known expert story-tellers at suitable intervals. Work starts as soon as it is light enough, each man punching his digging stick through the warm ash into the soil below, levering up a little lip of soil and quickly throwing 7 corn seeds into the hole before moving forward. Holes are made at about 4 to 6 feet intervals, but although they are not in a line, they are not made at random. To allow for variable weather condition when the seed/germinates, if one hole punches into an elevated site with hard clay, the next site chosen will be in a slight depression with softer soil conditions. They conscientiously try to even out the varied micro-environmental conditions by sowing some seed on every topographic variant, so that they will still get some yield of corn, no matter if the growing season turns out to be unusually dry or unusually wet. They arrange the seed holes with wide spacing, making one big step forward, then punching two or three hole at least 4 ft. apart before striding forward again. They are not worried about irregularity in the spacing of the holes so long as they are far enough apart to let them move freely between the corn when fully grown. Into each hole they throw, with unerring accuracy, no less than 7 seeds. They consider they will be certain of getting three plants for their plants for their own use; two are for the deities, and two for the wild animals.

All of this appears to be quite ridiculous to a trained agronomists but the latter will lose credibility with the Mayas should they insist on closer spacing; or use fewer seeds in each hole; or require that holes be punched in neat lines. The Mayas are aiming for clumps of maize plants strong enough to support each other in a heavy breeze, each clump spaced far enough from its neighbours to permit easy access at harvest time, yet leaving some space for sowing other milpa crops once the maize plants are growing; and they use irregularity in the micro-relief of the land to even out climatic irregularity. Nor do they not want their main food crop to growing in neat straight lines because this facilitates looses from wild animals that find it most convenient to move efficiently along such a line, eating plant after plant, in each row. The Mayas have developed this a traditional system, which has worked well for several hundred years, - an if an agronomist cannot live with this he never will be of much use for work amongst Mayan farmers.

There are many other things in the traditional system that may seem foolish to agronomists but when examined closely they usually turn out to be perfectly sensible for use in landscapes that are often rocky and rugged, with considerable minor variation in soil conditions. Even their efforts to ensure a quick, hot, burn of forest debris make good sense. True most of the surface organic residues are lost, but only the surface half-inch of the soil is heated excessively, the soil below remains virtually unchanged physical and chemical properties, and there usually ensues a rapid growth of seeds available in the unburned part of the topsoil that quickly covers the soil surface and renews the organic surface layer, legume species are particularly quick to emerge, thus both permitting re-establishment of atmospheric nitrogen fixation and also ensures minimal erosion of this soil surface. The corn milpa is only fully used for one year. In the second year some weeding with machete or hoe allow slower growing food crops interplanted with the first y

ear corn plants to come to fruition; but thereafter taller, more deep-rooting native legumes and seedlings of forest trees take over until, 8 to 10 years later, the old milpa is ready for re-use for a corn crop, or for a rainfed rice crop. Sustainable yields of corn following an 8 – 10 year bush fallow is guaranteed since there is no cumulate loss of soil fertility and little or not erosion with such a cycle. It is not surprising that agronomists have tried but failed to find any better way of using these soils, and if an agronomist wants to sustain his own credibility with a Mayan farmer, he needs to know these facts about the working of the Milpa system.

However, trained agronomists can be useful in situations where, for various reasons, the Mayan farmers have been forced (or tempted) to shorten the bush fallow interval to five years or less. It is usually not just a matter of diminishing soil fertility (usually due to a slight reduction of availability of soil phosphate) but more significant is progressive clay elevation which reduces soil aeration in the subsoil and interferes with nitrogen fixation in the subsoil and the uptake of soil nutrients by the deeper-rooting native species of plants partaking in the cycle of forest regeneration. Many farmers also claim that soil degeneration is associated with excessive growth of "weeds" that slows down regeneration of forest species. Reduction of weed infestation by hand, or by weedicides, appears economically impossible, and the only way seems to be the stimulation of native legume species or the introduction of non-native legumes during the first few years after a corn harvest. T.R.D.P. promoted the use of mucuna for this purpose and NARMAP showed that mucuna gave the best results if sown deliberately as a cover crop, - a recuperative species.

This then becomes an enrichment process during the early years of forest regeneration. Other legumes besides mucuna that have been tried for this purpose (Stylosanthes spp; Dolichos sp; Canvalia gladiata and G. Ensiformis; Vigna Umbellata; Clitorea Terneata; Cajanus cajan; Siratro; Chic Pea; Pigeon Pea; Desmovium Gyroides; Peanuts; Pueraria Thaseoloizes; Calapogomium; Centrosima and many others), but some cannot survive amongst the vigorously invading forest tree species. However, many of the latter are themselves native legumes; and, indeed the original forest often consists of as much as 60% of native leguminous trees. After the initial cutting and burning of the natural forest, no subsequent burning should be necessary. A three to five year growth of legume- enriched regenerating vegetation can not be satisfactorily burned anyway, but can be slashed down and maize seed dibbled in with a digging stick (or, perhaps, broadcast) on to a rotating surface mulch. There is clearly plenty of scope for experiment, but this will need at least five years of trials, - and few overseas agronomists alas can stay in Toledo for such a length of time. For example, NARMAP is now leaving, just when they might become most useful.

For the Maya farmers of group I, who can still find high bush suitable for a milpa, the research could start with the normal traditional activities in the first year, followed by enrichment of regrowth by legumes in the second and perhaps fourth years with slashing and replanting of corn in the fifth year. Incidentally, a Mayan farmer does not measures success by weight of corn seen harvested. But by quality of the corn harvested. For reasons of harvesting procedures, transportation and storage problems, the measure of success lies in producing large, fat ears of corn, not like rice which is mainly grown as a cash crop for sale to the government marketing board at an inflated, subsided, price per lb. This same marketing Board originally paid cash for various variety of beans grown b milpa farmers, - but, after a few years, restricted their purchase

of beans to only one variety,- the R.K. (Red Kidney) bean. This particular variety then became a main focus of bean production for many milperos in Toledo, but it does have definite climatic, soil and biological limitations which make it an unreliable crop in many localities. Many of lthe other more adaptable bean varieties (black and white) can no longer find a guaranteed local market in Belize. They are however still being grown for "home use," and for clandestine sale across the border into Guatemala. Black bean varieties grown for illegal export are becoming an increasingly important cash crop for many milperos of group I.

Passing now to the present state of milperos in Group II. They have been target of overseas agronomists during the past 10 years and, as might be expected, they are feeling somewhat battered and bemused by the barrage of largely random shots they have been experiencing. NARMAP, the most recent overseas team, have helped to repair some of the damage, but they are now leaving with much of their work unfinished. NARMAP worked mainly with Mayan milperos who had better access to local markets than the milperos of Group I, and consequently were in a somewhat better economic condition despite the fact that they had reduced access to areas of "High Bush," and were thus forced to make do with milpas mainly created in regenerating forest of low stature. Group II milpas are usually smaller than those of group I, and this has given rise to the theory that the soils have deteriorated due to excessive frequency of use. Accelerated soil erosion, depleted supplies of available soil nutrients, and other factors such as frequent use of land caused due to excess population in Indian reserves, are cited as the main reason why milpa have become smaller and less productive per acre. The work of NARMAP agronomists showed that accelerated soil erosion is minimal; response to added fertilizers is barely enough to cover the cost of applying soil amendments; and that insertion of a legume crop in the normal milpa cycle of land use, and replacing burnign of plant residues with a mulching process, was the best way to sustain soil fertility and provide economic basis for growing adequate subsistence crops on milpas of reduced size. These technicians, in combination with cash crops obtained from agro-forestry, could probably make even smaller milpas economically viable.

The problem for the next overseas group coming to Toledo concerns mainly implementation of these techniques. There is probably less need for agronomists and more need for sociologists, to find out why the new approach for approach for sustained production is being accepted with reluctance on the part of most Mayan farmers. The sociologists will probably find that milperos, in general, cannot meet the extra expense and extra labour involved in getting started with this new style of farming. The sociologist can examine for any subtle sociological aspects of the problem, but their findings will probably be of little import unless some village-based banking and loaning arrangements can be contrived, perhaps among the lines of a Mayan farmers co-operatives. Thus the incoming team from overseas will need economists, sociologists, as well as their standard agronomists.

Finally, we come to the group III Mayan Farmers, those who have already moved down to the lowlands from the hilly uplands, and now live close to main roads and have the best access to markets. Their average standard of living is higher than that of Mayas of Group I & II, but most of them are far from satisfied when the compare their own situation with the standard of the average Mayan farmers with whom they intermingle. In recent years many of Group III Mayas have taken up the ideas of agro-forestry and derive income from plantations of citrus or cacao,

supplemented by rainfed rice crops on land cleared by burning of the Huamil and stunted forest either on their own land or on any nearby unoccupied crown land. Some use weedicides, and occasionally use mixed fertilizers for their crops, according to the amount of surplus cash available to the family. Their main constraints is the low availability and high cost of extra farm labour which is weeded at several times during their farming year. Some families are doing quite well, but others occasionally suffer a ready-cash crisis. A few have managed to get D.F.C. loans using their land as collateral. Only a small number of farmers are using mucuna as a supplementary legume with their crops.

Group III Mayan farmers thus need considerable guidance from any new team coming from overseas, especially if this team includes an economist. Actually there is a fourth group of Mayas in process of formation. This group, IV, consists of Maya families who have left their home villages to become members of anew large village growing up on the outskirts of Punta Gorda Town. The motive behind this move has little to do with farming. Mayans have seen the advantage of secondary education for their children and, to give them a good home while attending Toledo Community College, they have opted to create home conditions near Punta Gorda which can help their children while they are going to secondary school. These "displaced" milperos are financing their move to an urban environment mainly by taking casual labour jobs in the town. In this manner, one family coming from some far distant village can offer safe shelter for other children of relatives from the same village, receiving in turn occasional contributions of food crops from their original village. At the moment this group IV is probably not needing attention from any overseas group; but there are in process plans by the education and university authorities to create another secondary education centre within the "Maya Homeland," perhaps using the former Salamanca camp facilities which were created by the British Force some 15 years ago, but are now naturally abandoned. This would be a very desirable project, since it would ensure that future generations of Mayas become more rapidly integrated into normal Belizean life, without destroying their ethnic roots.